

# A measure of emotional empathy<sup>1</sup>

Albert Mehrabian and Norman Epstein, *University of California, Los Angeles*

---

The study of empathy has followed two fairly distinct paths, based upon two different definitions of the empathic process. Within Dymond's (1949) cognitive role-taking approach, an empathic person can imaginatively take the role of another and can understand and accurately predict that person's thoughts, feelings, and actions. In this context, the neutrality and detachment of the empathizing person was viewed as aiding accuracy (e.g., Rogers, 1957). Those who pursued Dymond's theory (Cline & Richards, 1960, Dymond, 1950, Hatch, 1962, Kerr & Speroff, 1951, Mahoney, 1960, Rogers, 1957) defined empathy operationally as predictive accuracy, and developed measures useful in differentiating levels of cognitive social insight.

Within a second approach, empathy was defined as a vicarious emotional response to the perceived emotional experiences of others. Stotland (1969) argued that although the term "empathy" was used to refer to predictive accuracy, the label was a misnomer. There is a critical difference between the cognitive role-taking process and empathic emotional responsiveness. Whereas the former is the recognition of another's feelings, the latter also includes the sharing of those feelings, at least at the gross affect (pleasant-unpleasant) level.

Measures of empathic emotional response have typically relied on self-report and physiological indicators. Stotland (1969) reported a lack of consistency among various self-report measures of empathy, palmar sweating and vasoconstriction. The low validity of the self-ratings is due to their confounding with response styles (e.g., Jackson & Messick, 1958), and the inadequacy of the physiological measures is in part due to their failure to differen-

<sup>1</sup> This study was supported by the United States Public Health Service grant MH 13509. The authors would like to express their gratitude to Sondra Krakower for her valuable assistance with one of the experiments.

tiate various facets of emotional experience. Also, Lacey, Kagan, Lacey, and Moss (1963) reported that different physiological indicators of the same emotion (e.g., anxiety) are not intercorrelated.

In light of the problems of measurement noted by Stotland (1969), Aderman and Berkowitz's (1970) measurement of emotional empathy (as distinct from predictive accuracy) seems to provide a useful alternative. Their subjects listened to an audio recording of an emotional dyadic interaction and then indicated their own feelings on Nowlis's (1965) mood questionnaire. Subjects were told that the experimenter simply wanted to know how long it took to fill out the questionnaire. Such a combination of a standardized stimulus with a mood questionnaire can be effective, provided the subjects do not construe empathic reactions to the recorded interchanges as socially desirable or as measuring their ability to accurately recognize others' feelings. Therefore, a special effort was made to control social desirability bias in the measure of emotional empathy described below.

The object of the present paper was to develop an adequate measure of emotional empathy (as distinct from predictive accuracy) and to test its validity in two settings where such a personality attribute is relevant. Although aggression and helping behavior have been treated separately in previous studies, the two areas can be related using the concept of emotional empathy. Our basic hypotheses were that a person who has a high level of emotional empathy is less likely to engage in aggressive behavior, particularly when the pain cues from the victim are immediate, and that he is more likely to engage in helping behavior when he notices distress in another. In other words, the common element in these situations is the heightened responsiveness to another's emotional experience.

#### THE QUESTIONNAIRE MEASURE OF EMOTIONAL EMPATHY

Table 1 presents the items of the measure of empathic tendency used in the present experiments. Response to each item of Table 1 is on a +4 (very strong agreement) to -4 (very strong disagreement) scale, and the (+) and (-) signs preceding each item indicate the direction of scoring. The items were selected

from a larger set on the basis of (a) insignificant correlations with the Crowne and Marlowe (1960) social desirability scale, (b) significant .01 level correlations with the total score on the scale, and (c) content validity inferred in part from factor analyses of a larger pool of items.

The final set of items in Table 1 represents intercorrelated subscales which measure related aspects of emotional empathy. The subscales consist of "Susceptibility to Emotional Contagion" as measured by items such as (10) and (20) of Table 1; "Appreciation of the Feelings of Unfamiliar and Distant Others" represented by items such as (15) and (28), "Extreme Emotional Responsiveness" represented by items such as (8) and (23), "Tendency To Be Moved by Others' Positive Emotional Experiences" measured by items such as (14) and (22), "Tendency To Be Moved by Others' Negative Emotional Experiences" measured by items such as (16) and (30), "Sympathetic Tendency" represented by items such as (26) and (33), and "Willingness To Be in Contact with Others Who Have Problems" represented by items such as (12) and (21).

The subscale intercorrelations are all significant at the .01 level and exceed 0.30 in all instances. The split-half reliability for the entire measure is 0.84. The total empathy scale has a correlation of 0.06 with the Crowne and Marlowe (1960) social desirability scale.

To compute a total empathy score, the signs of a subject's responses on the negative (—) items are changed and then an algebraic sum of all 33 responses to the scale is obtained. For a sample which included equal numbers of males and females, mean = 33 and standard deviation = 24. However, since males and females differ significantly in their empathic tendency (the correlation between empathy and sex, male = 1 and female = -1, was -.42 for one sample of 202 subjects) separate statistics may be necessary in some cases. For males,  $M = 23$ ,  $SD = 22$ , for females,  $M = 44$ ,  $SD = 21$ .

The experiments described in the following two sections explored the validity of the measure of emotional empathy in Table 1. In the first section, experiments investigated the correlates of emotional empathy in situations involving aggression, in the

Table 1. Questionnaire measure of empathic tendency.

- 
- (+) 1 It makes me sad to see a lonely stranger in a group
  - (-) 2 People make too much of the feelings and sensitivity of animals.
  - (-) 3 I often find public displays of affection annoying
  - (-) 4 I am annoyed by unhappy people who are just sorry for themselves.
  - (+) 5 I become nervous if others around me seem to be nervous.
  - (-) 6 I find it silly for people to cry out of happiness
  - (+) 7 I tend to get emotionally involved with a friend's problems
  - (+) 8 Sometimes the words of a love song can move me deeply
  - (+) 9 I tend to lose control when I am bringing bad news to people
  - (+) 10 The people around me have a great influence on my moods.
  - (-) 11 Most foreigners I have met seemed cool and unemotional
  - (+) 12 I would rather be a social worker than work in a job training center
  - (-) 13 I don't get upset just because a friend is acting upset
  - (+) 14 I like to watch people open presents.
  - (-) 15 Lonely people are probably unfriendly.
  - (+) 16 Seeing people cry upsets me
  - (+) 17. Some songs make me happy
  - (+) 18 I really get involved with the feelings of the characters in a novel
  - (+) 19 I get very angry when I see someone being ill-treated
  - (-) 20 I am able to remain calm even though those around me worry.
  - (-) 21 When a friend starts to talk about his problems, I try to steer the conversation to something else
  - (-) 22. Another's laughter is not catching for me
  - (-) 23 Sometimes at the movies I am amused by the amount of crying and sniffing around me
  - (-) 24 I am able to make decisions without being influenced by people's feelings.
  - (+) 25 I cannot continue to feel OK if people around me are depressed.
  - (-) 26 It is hard for me to see how some things upset people so much
  - (+) 27 I am very upset when I see an animal in pain.
  - (-) 28 Becoming involved in books or movies is a little silly
  - (+) 29. It upsets me to see helpless old people
  - (-) 30 I become more irritated than sympathetic when I see someone's tears.
  - (+) 31 I become very involved when I watch a movie
  - (-) 32 I often find that I can remain cool in spite of the excitement around me
  - (-) 33 Little children sometimes cry for no apparent reason.
- 

second section, an experiment investigated its relation to helping. To test construct validity, it was first necessary to consider relevant research in each section and thereby develop hypotheses bearing on emotional empathy.

#### THE RELATION OF EMOTIONAL EMPATHY TO AGGRESSIVE BEHAVIOR

Feshbach (1964) hypothesized that feedback from the victim of aggression elicits emotionally empathic distress in the observer, even if the observer is the instigator of the aggressive act. Thus, a more empathic person is discouraged from using aggressive instrumental behavior to achieve nonaggressive goals, and is especially discouraged from hostile aggression which has the goal response of injury to another. In addition, Feshbach (1964) hy-

pothesized that the immediacy and intensity of the pain reaction of the victim are important factors in inhibiting aggression

Studies by Buss (1961), Milgram (1965), and Baron (1971) provided support for the immediacy-nonaggression hypothesis. Feedback such as gasps and groans from victims of aggression was effective in reducing the intensity of shock delivered by some of Buss's (1961) subjects. The differential response of subjects to emotional feedback from the victim in Buss's (1961) experiments might be attributable to unmeasured differences in the empathic tendency of the subjects. In Milgram's (1965) study, an authority figure instructed subjects to inflict increasingly painful punishment upon another person—an experimental confederate. The four degrees of immediacy (remote feedback, voice feedback, proximity, and touch-proximity) were inversely correlated with the amount of shock administered to victims. In corroboration, Baron (1971) found that the shock intensity used by unangered as well as mildly angered subjects was a monotonically decreasing function of pain feedback from the victim.

The evidence bearing upon the empathy-nonaggression hypothesis has been less substantial. Feshbach and Feshbach (1969) examined the relationship of empathic tendency to teacher ratings of aggressiveness in two age groups. Empathic tendency was measured in terms of the children's self reports of emotional responses to affect laden stimuli. Among the 6-7 year olds, teachers rated the high empathy boys as less aggressive than the low empathy boys. However, they rated high empathy boys in the 4-5 year old group as more aggressive than the low empathy boys. No significant differences in aggressiveness were obtained for high versus low empathy girls in either age group. Feshbach and Feshbach (1969) interpreted the results as being consistent with developmental changes in the social role of aggression for both sexes.

The two experiments in this section were specifically designed to test the empathy-nonaggression and immediacy-nonaggression hypotheses. The inclusion of both factors within the same experiment was motivated by the following hypothesis. the decrement in aggression in a more immediate feedback condition is especially greater for more empathic persons. The latter hypothesis was sug-

gested in part by Buss's (1961) findings which showed differential responsiveness of subjects to painful emotional feedback from victims

### *Method*

*Subjects* The subjects were 91 University of California undergraduates of both sexes, who participated in the experiment in partial fulfillment of a psychology course requirement. Data from three subjects were discarded, notably due to their familiarity with Milgram's (1965) procedure. Of the remaining subjects, 37 were male and 51 were female.

*Procedure* The independent variables included in the experiment were empathic tendency, two levels of immediacy of the victim (immediate versus removed), and sex of the subject. The experiment consisted of two ostensibly distinct parts, separated by an interval of one week. In the first session, the empathy questionnaire was administered to groups of ten subjects. As each subject completed the questionnaire and prepared to leave, the experimenter recruited him for "another" study to be held one week later. The second study was described as an experiment concerned with "personality and learning," and of only twenty minutes duration. There was little difficulty in convincing most of the subjects to take part in the second study.

The latter session involved a variation of Buss's (1961) procedure. Subjects were each paired with an experimental confederate of the same sex. The experimenter "randomly" selected the subject to act as a teacher and the confederate to act as a pupil. Having read a character sketch of a third person, the pupil-confederate was to try to make predictions about his personality. The pupil used an electronic device similar to that used by Buss (1961) to indicate his answers to questions in a two-choice format. The teacher was given the "key" which supposedly contained the correct answers. In reality, the pupil answered according to a predetermined schedule, which corresponded to the teacher's answer key on 15 of 30 trials (i.e., he made 15 "errors"). The teacher-subject was instructed to use the controls on his half of the device to indicate to the pupil when he had answered correctly and to punish him each time he made an error.

To punish the pupil for each error, the teacher had a choice of administering any one of seven intensities of electric shock. The pupil had an electrode attached to one hand, which supposedly delivered the electric shocks. In reality, he never received any shocks. His end of the electronic device indicated what level of shock the subject em-

played on each trial, thereby allowing him to exhibit the appropriate behavior he had been coached to produce. The differential reaction of the confederate as a function of shock intensity was designed to approximate real-life situations and consisted of increasing degrees of facial grimaces, gasping and jerking of the arm to which the electrode was attached

Prior to the teaching session, to convince the teacher that he would be shocking the pupil, the electrode was placed on the teacher's hand, and real shocks were delivered. The teacher received the lowest and middle levels of shock while being shown the corresponding scale values. This procedure served to inform him of the levels of pain associated with the shock-scale. The lowest level was barely supraliminal

In the immediate condition, the pupil was seated eight feet from the teacher and was fully visible. In the nonimmediate condition, the pupil was seated in another room, out of view of the teacher, but could be heard

The pupil answered the items according to the prearranged schedule and acted appropriately whenever he was being rewarded or supposedly shocked. When he was supposedly writing his answers, he was in fact recording the shock levels given by the teacher, using the integers one through seven

At the conclusion of the experiment, the experimenter interviewed the subject to discover whether he had been suspicious of any of the manipulations. As already noted, the data from three subjects were discarded because they were already familiar with Milgram's (1965) experiment. Subjects were debriefed following the interview and were asked not to tell their classmates about the true purpose of the experiment.

## *Results*

An overall aggression score was computed for each subject. This was the average shock level which he administered to the confederate for all trials where the confederate made an error. A stepwise multiple regression method described by Cohen (1968) was used to explore the significant main and interactive effects of the following factors on degree of aggression: sex, empathic tendency, and immediacy of the victim. The multiple regression analysis was chosen over the standard analysis of variance due to a significant correlation between the independent variables empathy and sex. Such a correlation violates the assumption of the

Table 2 Cell means for the immediacy  $\times$  empathic tendency effect.

	Victim	
	Immediate	Nonimmediate
Means for aggression in the first experiment		
High empathy	1.77	2.57
Low empathy	2.43	2.35
Means for aggression in the second experiment		
High empathy	1.86	2.38
Low empathy	2.26	2.32

Note.—In the first experiment, the immediate high empathy and the immediate low empathy cell means, and the immediate high empathy and nonimmediate high empathy cell means, differed at the 0.05 level of significance based on *t* tests; in the second experiment, immediate high empathy and nonimmediate high empathy cell means differed at the 0.05 level of significance based on *t* tests. Mean values were computed using a median split for high- versus low-empathy.

analysis of variance that the independent variables are orthogonal and calls for the elimination of cases to achieve proportionality of observations in the various cells. In contrast, the multiple regression procedure permits all cases to be retained and was therefore preferred for the present experiments.

The .05 level significant effects for average aggression were Sex ( $\beta = .21$ ) and Immediacy  $\times$  Empathic Tendency ( $\beta = -.21$ ), with all variables normalized and male = 1, female = -1; immediate = 1, and nonimmediate = -1. The multiple correlation coefficient between aggression scores predicted from these significant effects and actual aggression scores was 0.30. Mean aggression of males (2.55) was significantly greater than that of females (2.06). Table 2 presents the cell means for the Immediacy  $\times$  Empathic Tendency interaction effect.

A replication experiment was performed which employed 104 subjects from the same population. The data from 10 subjects were discarded on the same basis as in the first experiment. Of the remaining subjects, 47 were male and 47 were female. In this replication, subjects also filled out a questionnaire measure of aggressive tendency (Jackson, 1967). The results for average aggression obtained from this replication showed only the single significant .05 level effect of Immediacy  $\times$  Empathic Tendency ( $\beta = -.23$ ). Since all variables were normalized, it follows that the multiple correlation coefficient is 0.23. The effect for sex (male aggression = 2.36, female aggression = 2.04) was in the same di-



reaction as in the first experiment, but did not attain the uniform .05 significance level. Table 2 also presents the cell means for the Immediacy  $\times$  Empathic Tendency effect of this replication experiment. Jackson's (1967) aggression measure correlated  $-.31$  ( $p < .05$ ) with empathic tendency, but failed to predict the dependent variable.

### *Discussion*

The results from both experiments show that, although empathy itself was not a sufficient condition for inhibiting aggression, differences in empathy did make a difference when combined with differences in immediacy of the victim. Whereas low empathy subjects aggressed with equal intensity against an immediate as a nonimmediate victim, highly empathic persons aggressed less when the victim was more immediate. Thus, the moderately negative emotional cues from the victim appeared to have inhibited only empathic persons' aggressive behaviors.

In the first experiment (but not the second one where there was a similar, though nonsignificant, effect), males aggressed significantly more than females. This finding, which is consistent with Buss's (1961) results, corroborates numerous findings which have shown aggression to be a major sex difference (e.g., Anastasi, 1958).

Although the absence of a significant effect of the immediacy of the victim was inconsistent with previous findings (Buss, 1961, Milgram, 1965), it is important to note that the pain feedback cues from the confederates in the present experiments were not strong relative to those employed in earlier studies. Especially lacking were strong vocal cues. Therefore, the effects of immediacy of the victim obtained in the present studies were weaker than they would have been had the experiments employed a more powerful feedback manipulation.

As in Milgram's (1965) study, the level of pain feedback increased with the level of shock to accurately represent everyday experiences. Although feedback was relatively weak in the present studies, any effect of this manipulation should have minimized between-subject differences in aggressiveness (e.g., Baron, 1971).

Therefore, it is encouraging that there was still a difference in aggressiveness due to empathic tendency.

#### THE RELATION OF EMOTIONAL EMPATHY TO HELPING BEHAVIOR

In his recent thorough review of the literature, Krebs (1970) considered personality correlates and situational determiners of altruistic behavior. He concluded that subjects were more likely to help someone they liked more, someone who was more similar to themselves, and someone who was more dependent, particularly when the dependency was externally caused rather than internally motivated. Helping behavior was also a function of conformity to group standards. In contrast to the rather consistent findings for situational variables, "Considered as a whole, no general conclusions can be drawn about personality traits of benefactors [Krebs, 1970, p. 285]." Some of the trends, however, suggested that more socially oriented college-age persons were more likely to engage in altruistic behavior. An important conclusion drawn by Krebs regarding experimental methodology was that studies which employed behavioral measures were less likely to yield significant results than those which employed parent, peer, and self-ratings of altruistic behavior.

In one comprehensive attempt to find personality correlates of helping behavior, Latané and Darley (1970) found that none of the following five scales related significantly to a behavioral measure of helping: a revised F scale (Christie, Havel & Seidenberg, 1958), scales of anomia and machiavellianism (Christie, 1964), the Crowne and Marlowe (1960) social desirability scale, and the Berkowitz and Daniels (1964) social responsibility scale. The absence of significant relations between personality measures and helping behavior in this and other studies reviewed by Krebs (1970) was a primary motive for the further exploration of the measure of emotional empathy in the present experiment.

Drawing upon the preceding findings, the present study was designed to explore the combined contribution of situational and personality variables to helping behavior. In order to introduce variations in liking, each subject was paired with an experimental confederate who was previously presented as having either similar or dissimilar attitudes (Byrne, 1969). However, it was also recog-

nized that the actual face-to-face interchanges between subjects and confederates could influence liking. Consequently, post-interaction questionnaires were employed to assess subjects' perceived similarity with, and liking of, their partners

The personality attributes measured were emotional empathic tendency, succorance (Jackson, 1967), affiliative tendency and sensitivity to rejection (Mehrabian, 1970), and approval seeking tendency (Crowne & Marlowe, 1960). In the first section, it has been shown that the measure of emotional empathic tendency is related to subjects' differential aggressiveness toward a victim when they received pain feedback from him. Thus, it was assumed that this personality measure was most relevant for exploring an observer's responsiveness to someone in need of help. The remaining personality measures were included to provide a check on this assumption, that is, to see which of the various measures best predicted helping behavior. The findings would thus test the differing hypothesized bases of helping, such as sociability (which relates to affiliative tendency), concerns over acceptance (which relate to sensitivity to rejection), and conformity to implicit group standards (which relates to succorance and approval seeking tendency).

It was hypothesized that altruistic behavior is a correlate of empathic tendency and of similarity with the person needing help. No specific hypotheses were offered for the remaining personality variables, other than those following from Krebs's (1970) conclusions.

### *Method*

*Subjects.* These were 81 female undergraduates at the University of California who participated in the study in partial fulfillment of an introductory psychology course requirement. The data from three subjects who were found to be suspicious of the experimental manipulation were not used in the analyses.

*Procedure.* Upon arriving at the experiment, each subject was placed in an individual room and asked to fill out an attitude questionnaire similar to one employed by Byrne (1969). This questionnaire included 11 topics ranging from such controversial issues as abortion and the Vietnam war to more mundane questions dealing with personal preferences for leisure-time activities. The subject indicated her

attitudes toward each topic by placing a check mark at the appropriate space on a 9-point continuum. The experimenter collected this questionnaire and instructed the subject to begin responding to the measures of emotional empathic tendency, affiliative tendency and sensitivity to rejection (Mehrabian, 1970), succorance (Jackson, 1967), and approval seeking tendency (Crowne & Marlowe, 1960). The items of the various scales were randomized to minimize the subject's awareness of the traits being measured. A semantic differential questionnaire which measured characteristic emotions in terms of the three feeling factors (pleasure, arousal, and dominance) proposed by Mehrabian and Russell (1972) was also included in this set. This instrument would allow the description of empathic tendency in terms of basic feeling dimensions.

While the subject was occupied with this task, the experimenter constructed a bogus questionnaire to represent the supposed similar or dissimilar attitudes of another subject (the experimental confederate). For the similar condition, responses on the 9-point attitude dimensions differed an average of 0.5 units from those of the subject, for the dissimilar condition, the mean response difference was 4.0 units. The similar and dissimilar conditions were alternately assigned to subjects as they arrived for the experiment.

After the subject had worked on the personality scales for twenty minutes, the experimenter returned and told her she would now be listening to music with another person. It was explained that they would first report their own reactions to the music and then try to predict each other's reactions. To help them in this prediction task, they were to first exchange attitude questionnaires. The subject received the bogus attitudes of her partner and was told that her partner would be studying hers.

Five minutes later, the subject and the confederate were brought together in another room. As the experimenter reiterated the details of the task and warned against discussion of the attitude questionnaires, the confederate stared at the floor 50 percent of the time and never looked at the subject. The subject and confederate were then left alone together for three minutes while the experimenter supposedly went to rewind the music tape. After the experimenter left, the confederate was silent and continued to stare at the floor. She then behaved according to the following script, with sufficient pauses to make the presentation realistic.

I am really in trouble [Dejected, looking at the floor and only looking at the subject 50% of the time]. I have to do an experi-

ment for a class and it's really got me worried. I can't get any subjects. The way it looks now, I'm going to flunk [Looking directly at the subject at this point] Do you think you could help me? I need girls for 1/2 hour periods up to 3 hours—as many half hours as you can give [If the subject was indecisive or answered "No" at this point, the confederate made only one more appeal] I really need help.

The confederate informed the subject that no class credit or pay could be given for participation and made a definite appointment with consenting subjects for the volunteered amount of time, at the subject's convenience

Five different confederates were previously trained to follow the script and to exhibit the required nonverbal behaviors indicative of anxiety and depression. Confederates were observed through a one-way mirror to determine whether they were faithfully reproducing the standardized script, and the behaviors of all five were considered satisfactory.

The experimenter terminated the 3-minute interaction by returning to announce that no music would be played at that time. He ushered the subject and the confederate into separate rooms and, as a check on the similarity-dissimilarity manipulation, instructed the subject to report her liking of, and perceived similarity to, her partner using 7-point scales. The subject then continued to complete the personality questionnaires and was debriefed and asked not to tell fellow students about the true purpose of the experiment

### *Results*

The dependent variable was the amount of time (in half-hour periods) offered by a subject to help the confederate with her experiment. Each of five separate stepwise multiple regression analyses explored the main and interactive effects of similarity-dissimilarity with one of the following personality factors on helping behavior: empathic tendency, affiliative tendency, sensitivity to rejection, succorance, and approval seeking tendency.

There was only one .05 level significant effect in all of these analyses, which showed that helping behavior was a function of empathic tendency ( $\beta = 0.31$ ), with both variables normalized. In addition, no significant relation was found between liking of the confederate or perceived similarity with the confederate (both

as assessed by the post-interaction questionnaire) and the dependent measure of helping. Incidentally, the similar-dissimilar experimental manipulation correlated 0.79 with perceived similarity, and 0.18 ( $p > .10$ ) with liking, thus showing that this manipulation affected perceived similarity but not liking. The only other significant correlation was between perceived similarity and liking ( $r = 0.39$ ).

It will be recalled that subjects provided ratings of their characteristic emotions on the three dimensions of pleasure, arousal, and dominance, using semantic differential scales that were developed by Mehrabian and Russell (1972). Empathic tendency was explored in a regression analysis as a function of these three emotions. With all variables normalized, the only significant .05 level effect was characteristic arousal level ( $\beta = .33$ ).

### *Discussion*

In considering the absence of an effect for similarity, it is important to note that this manipulation was effective, in that subjects' perceived similarity correlated with the manipulated similarity. However, the similarity manipulation failed to induce differences in liking and differences in helping behavior. The failure of this manipulation to affect helping may have been due to the particular subject sample employed. These were all college students whose partners were in a similar role and had a problem with which they could identify (even in the dissimilar condition). Spontaneous comments of the subjects during the debriefing also showed that they attempted to be open-minded and had reserved judgment toward their partners. Comments such as, "She wasn't like me, but that wasn't important" were common.

The absence of a direct correlation between subjects' liking of the other and the amount of help offered is best considered in terms of the following. "Although there are suggestive indications that attractiveness [liking] mediates altruism, the relationship is surprisingly weak. Several studies, in fact, have found a negative relationship between helping and attractiveness [Krebs, 1970, p. 281]."

In considering the absence of results which would relate the remaining personality measures to helping behavior, it is instructive

tive to note the following comments of Latané and Darley (1970) bearing on their previously cited attempts to find personality correlates of helping.

Obviously, it cannot be concluded from this that an individual's personality does not affect his helping in emergencies. Only a much more limited conclusion is possible the variables cited, as they were measured, did not predict reporting the [epileptic] seizure. Still, to us and to other psychologists whom we asked for advice, these scales seemed quite relevant to predicting who would and who would not help. In general, we found our failure to demonstrate personality correlates of helping somewhat discouraging, although, of course, further research may well uncover other variables which are more effective, or other situations in which more effects occur [pp. 114-115].

In the context of their remarks, the present findings with the measure of emotional empathy are especially encouraging and provided unambiguous support for the idea that the latter is a primary personality attribute for predicting helping behavior. Further, the findings showed that affiliation, acceptance, dependency (succorance) and the associated increased likelihood of conformity to group standards are quite secondary. We can understand the introduction of such concepts in investigations of helping behavior more in terms of the pragmatics of research than in terms of theoretical considerations. In the absence of a measure of emotional empathy, investigators relied on a variety of available personality measures and peer ratings which were tangentially related to empathy. In the case of occasional significant findings, explanations of helping behavior were offered in terms of these related concepts.

#### GENERAL DISCUSSION

The results obtained in the first section were especially reassuring since subjects were administered the empathy scale one week before their aggressiveness toward another was measured. Thus, there was little chance for subjects to base their behavior in the experimental situation on their verbal responses to the questionnaire. In view of these results, further exploration of the proposed measure in relation to aggression can be worthwhile.

One such attempt could explore the interactive effect of empathic tendency with a second experimental condition in determining aggressiveness. Number of successive exposures to a situation where another person is subjected to considerable pain could be substituted for the immediacy-of-feedback condition. Stress films developed by Lazarus (1968) could be used, and empathic verbal and/or physiological reactions of a subject during each of a number of successive exposures could be measured. It is expected that highly empathic subjects would habituate to the repeated exposure more slowly than the less empathic ones. The paradigm would allow not only a test of the Empathic Tendency  $\times$  Habituation hypothesis, but could also be used to study possible differences in the physiological reactions of more and less empathic persons when they observe pain in another.

The significant relation of empathic tendency to helping behavior that was obtained in the second section supported the idea that empathic persons are emotionally responsive to others' needs. This finding was encouraging considering Krebs's (1970) conclusion that significant findings are less likely when actual helping behaviors rather than peer ratings are used. The present results also showed that empathic tendency was a direct correlate of emotional arousal (a dimension which is independent of pleasure). Thus, persons who are characterized as possessing higher empathic tendency tend to be more aroused by others' emotional experiences of both positive and negative quality. Therefore, in contrast to the methods employed in the present study, the validity of the proposed measure can be explored further in situations where there are differences in emotional responsiveness to another's positive experiences.

#### SUMMARY

Experiments were designed to explore the validity of a measure of emotional empathy in two distinctly different social situations, involving aggression and helping behavior. The 33-item scale consisted of intercorrelated subscales which measured related aspects of emotional empathy. The measure was highly reliable and showed discriminant validity—a 0.06 correlation with the Crowne and Marlowe (1960) social desirability scale.



In the first section which explored construct validity, the measure of emotional empathy was related to aggressiveness toward a "slow-learning student." Subjects were given a questionnaire measure of emotional empathy one week before their aggressiveness was measured. The subjects acted as teachers who could use various levels of shock to punish students. The average intensity of shock delivered by a subject served as the dependent measure of aggression. The immediacy of the pain feedback from the student-victim was of two levels. In the immediate condition, the student was in the same room with the subject, but was in an adjacent room in the nonimmediate condition. In both experiments, an Empathic Tendency  $\times$  Immediacy effect indicated that only highly empathic subjects aggressed less toward the students in the more immediate condition. The less empathic males were found to be generally more aggressive in one of the experiments.

In the second section, helping behavior was explored as a function of subjects' emotional empathic tendency, affiliative tendency, succorance (dependency), sensitivity to rejection, approval seeking tendency, and similarity of the recipient. It was hypothesized that helping behavior is positively related to empathic tendency and similarity of the recipient. The personality attributes were assessed using questionnaires. In addition, a semantic differential measure of the characteristic emotions of pleasure, arousal, and dominance was included to investigate the emotional components of empathic tendency. Female college students were paired with confederates who were portrayed as holding either similar or dissimilar attitudes. According to a standardized script, the confederates acted emotionally upset about a personal problem and asked the subjects to volunteer time for a class assignment. A post-interaction questionnaire assessed subjects' perceived similarity to, and liking of, the confederates. In a regression analysis, helping behavior was only found to be a significant correlate of empathic tendency. The attitude similarity manipulation was found to be highly correlated with perceived similarity, but was unrelated to liking or helping. A separate regression analysis showed that the primary emotional component of empathic tendency is heightened arousal. These findings were

interpreted as evidence that empathic tendency is the major personality determinant of helping behavior.

In sum, the proposed scale showed validity in quite distinct settings and therefore has potential applications in the corresponding situations. For instance, such a measure could be explored as a correlate of success in the helping professions (e.g., clinical, nursing or social work) or as a possible correlate of the success of untrained therapists.

#### REFERENCES

- Aderman, D., & Berkowitz, L. Observational set, empathy, and helping. *Journal of Personality and Social Psychology*, 1970, **14**, 141-148.
- Anastasi, A. *Differential psychology*. New York: Macmillan, 1958.
- Baron, R. A. Magnitude of victim's pain cues and level of prior anger arousal as determinants of adult aggressive behavior. *Journal of Personality and Social Psychology*, 1971, **17**, 236-243.
- Berkowitz, L., & Daniels, L. R. Affecting the salience of the social responsibility norm: Effects of past help on the response to dependency relationships. *Journal of Abnormal and Social Psychology*, 1964, **68**, 275-281.
- Buss, A. H. *The psychology of aggression*. New York: Wiley, 1961.
- Byrne, D. Attitudes and attraction. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, Vol. 4. New York: Academic Press, 1969.
- Christie, R. The prevalence of Machiavellian orientations. Paper read at American Psychological Association, Los Angeles, 1964.
- Christie, R., Havel, J., & Seidenberg, B. Is the F scale irreversible? *Journal of Abnormal and Social Psychology*, 1958, **56**, 143-159.
- Cline, V. B., & Richards, J. M., Jr. Accuracy of interpersonal perception—A general trait? *Journal of Abnormal and Social Psychology*, 1960, **60**, 20-30.
- Cohen, J. Multiple regression as a general data-analytic system. *Psychological Bulletin*, 1968, **70**, 426-443.
- Crowne, D. P., & Marlowe, D. A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 1960, **24**, 349-354.
- Dymond, R. F. A scale for measurement of empathic ability. *Journal of Consulting Psychology*, 1949, **14**, 127-133.
- Dymond, R. F. Personality and empathy. *Journal of Consulting Psychology*, 1950, **14**, 343-350.
- Feshbach, S. The function of aggression and the regulation of aggressive drive. *Psychological Review*, 1964, **71**, 257-272.
- Feshbach, N. D., & Feshbach, S. The relationship between empathy and aggression in two age groups. *Developmental Psychology*, 1969, **1**, 102-107.
- Hatch, R. S. An evaluation of a forced-choice differential accuracy approach to the measurement of supervisory empathy. *Dissertation Abstracts*, 1962, **23**, 323.
- Jackson, D. N. *Personality research form manual*. Goshen, New York: Research Psychologists Press, 1967.
- Jackson, D. N., & Messick, S. Content and style in personality assessment. *Psychological Bulletin*, 1958, **55**, 243-252.
- Kerr, W. A., & Speroff, B. J. *The empathy test*. Supplement to the manual. Chicago: Psychometric Affiliates, 1951.
- Krebs, D. L. Altruism—An examination of the concept and a review of the literature. *Psychological Bulletin*, 1970, **73**, 258-302.

- Lacey, J I, Kagan, J, Lacey, B C, & Moss, H A The visceral level: Situational determinants and behavioral correlates of autonomic response patterns. In P H Knapp (Ed), *Expression of the emotions in man*. New York: International Universities Press, 1963.
- Latané, B, & Darley, J M *The unresponsive bystander: Why doesn't he help?* New York: Appleton-Century-Crofts, 1970.
- Lazarus, R S Emotions and adaptation: Conceptual and empirical relations. In W A Arnold (Ed), *Nebraska Symposium on Motivation*. Lincoln, Nebraska: Nebraska University Press, 1968.
- Mahoney, S C The literature empathy test: Development of a procedure for differentiating between "good empathizers" and "poor empathizers." *Dissertation Abstracts*, 1960, **21**, 674.
- Mehrabian, A. The development and validation of measures of affiliative tendency and sensitivity to rejection. *Educational and Psychological Measurement*, 1970, **30**, 417-428.
- Mehrabian, A, & Russell, J *An approach to environmental psychology*. Unpublished manuscript, UCLA, 1972.
- Milgram, S Some conditions of obedience and disobedience to authority. In Steiner and Fishbein (Eds), *Current studies in social psychology*. New York: Holt, Rinehart and Winston, 1965.
- Nowlis, V Research with the Mood Adjective Check List. In S S Tomkins & C Izzard (Eds), *Affect, cognition, and personality*. New York: Springer, 1965.
- Rogers, C R The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, 1957, **21**, 95-103.
- Stotland, E Exploratory investigations of empathy. In L Berkowitz (Ed), *Advances in experimental social psychology*, Vol 4. New York: Academic Press, 1969.

*Manuscript received July 15, 1971*

This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.

This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.