THE INTERPERSONAL COMMUNICATION INVENTORY:
A MEASURE OF SOCIAL SKILLS

THESIS

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By

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The Interpersonal Communication Inventory, a self-report instrument for assessing social skills, was given to undergraduate college students to determine its reliability. Following this administration, other small groups of undergraduates were asked to complete an attraction scale, the Interpersonal Communication Inventory, an assertiveness scale, and a sociometric questionnaire. Results confirmed the Inventory as a reliable instrument, but a stepwise multiple linear regression did not support the hypothesis that the Inventory was a useful predictor of sociometric choice. In addition, Pearson product moment correlations between the Inventory and an assertiveness scale did not confirm the prediction that the two instruments would measure behaviors from different response classes. Definite conclusions could not be stated due to lack of validity data for the Inventory and possible confounding variables.
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THE INTERPERSONAL COMMUNICATION INVENTORY:
A MEASURE OF SOCIAL SKILLS

B. F. Skinner (1953) defined social behavior as "the behavior of two or more people with respect to one another or in concert with respect to a common environment" (p. 297). Skinner's definition of social behaviors, however, made no qualitative assessment of those behaviors comprising an interpersonal interaction. Other researchers have attempted to further delineate social behaviors into the class of responses labelled "social skills." This classification has depended to some extent on the particular researcher/theorist being reviewed, which has resulted in some ambiguity as to just what is meant by the term "social skills" and by what appears to be a subclassification of social skills, "assertiveness."

Assertive Behavior

While assertive behavior may be viewed as one aspect of the more global class of social skills, the definition of social skills has developed from earlier works dealing with assertiveness. In 1966, Wolpe and Lazarus defined assertive behaviors fairly generally as "all socially acceptable expressions of rights and feelings" (p. 39). A major premise underlying this view was that an individual's expression of assertiveness was inhibited by maladaptive anxiety response that
prevented a person from saying or doing what was reasonable and right. Lazarus extended the possible controlling variables for unassertiveness beyond the original hypothesis of anxiety as a competing response when he discussed the possibility that unassertive people lacked the necessary skills for assertiveness (Lazarus, 1971). He further stated that many of those who had the skills for negative assertions seemed to lack positive assertive responses: "many of the patients are able to contradict and attack or criticize and defend, but are completely incapable of voluntary praise and approval or expressing love and affection" (p. 47). Thus, in 1971, Lazarus indicated an awareness of the possibility of skills deficits as a factor in unassertive behavior and recognized the importance of the expression of positive assertive responses in addition to negative assertions.

The delineation of assertive behaviors as skill deficits continued with Lazarus' dividing them into four separate and specific response patterns: (a) the ability to say no, (b) the ability to ask for favors or to make requests, (c) the ability to express positive and negative feelings, and (d) the ability to initiate, continue, and terminate general conversations (Lazarus, 1973). Galassi, DeLeo, Galassi, and Bastien (1974) also separated assertive behaviors, but into three response classes: (a) the expression of positive feelings (love, affection, admiration, approval, and agreement), (b) the expression of negative feelings
(anger, disagreement, dissatisfaction, and annoyance), and (c) self-denial (overapologizing, excessive interpersonal anxiety, and exaggerated concern for the feelings of others).

Rathus (1975) suggested yet another delineation of assertive behaviors; his efforts resulted in the following list: (a) assertive talk, including "rectifying statements"--attempts to correct or amend an injustice and "commendatory statements"--attempts to increase the frequency with which the recipient engages in certain behaviors, (b) the expression of feelings, (c) greeting others, (d) disagreement--both verbal and nonverbal, (e) asking why, (f) talking about oneself, (g) accepting compliments, (h) eye contact and (i) anti-phobic responses.

These lists of response classes reveal the degree of overlap present in the attempts to delineate "assertive behaviors." In a review of assertiveness literature, Rich and Schroeder (1976) stated that three of the problem areas in assertiveness training were (a) the lack of suitable definition or specificity of the response classes of assertive behavior, (b) the inadequate identification of the components of assertive behaviors and (c) the slow development of reliable and objective laboratory and real-life measures of assertive behaviors. They offered yet another definition of assertiveness: "skills that (a) are concerned with seeking, maintaining, and enhancing reinforcement and (b) occur in interpersonal situations involving the risk of
reinforcement loss or the possibility of punishment" (Rich & Schroeder, 1976, p. 1083).

One of the commonalities evident in the various early definitions of assertiveness was a growing awareness of the need for an individual to be able to make positive as well as negative assertive responses. In 1971, Lazarus briefly discussed the need for the expression of positive as well as negative feelings. In 1973, Hersen, Eisler, and Miller recognized that the focus in most clinical studies of assertiveness had been the expression of a patient's more negative feelings. It seemed important in a discussion of interpersonal interactions that the distinction be made between positive and negative assertive responses.

These two types of assertive responses appeared similar in that both were an attempt by the speaker to gain social reinforcement from others. Alberti and Emmons' (1974) global definition of an assertive person was to "act in his own best interest, stand up for himself without undue anxiety, to express his rights without destroying the rights of others" (p. 1). While both positive and negative assertive behaviors formed a large class of responses that facilitated the speaker's acquisition of social reinforcement, positive assertive responses differed from negative ones in that the former did not tend to increase the probability of the emission of any social punishers. Negative assertive responses, however, operated under conflicting schedules of reinforcement: while they increased the probability of
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reinforcement for the speaker, they also increased the likelihood of punishment because they tended to be demands or requests for a change in the listener's behavior. No matter how politely, tactfully or subtly a request was made, the speaker might still have received a social punisher in the form of an overt refusal or a lack of change in the listener's behavior.

**Social Skills**

While those individuals interested in assertiveness were developing definitions and possible response classes, others were widening the focus in interpersonal effectiveness research by emphasizing the concept of social skills. The more generic term *social skills* allowed for an inclusion of those behaviors that did not seem to fall under the definitions of assertiveness. According to Lowe and Cautela (1978), being appropriately assertive might have been a significant aspect of an individual's behavior but was, after all, only one component of a person's social performance.

Libet and Lewinsohn (1973) offered this definition of social skills in reference to the behavior of depressed persons: "the complex ability both to emit behaviors which are positively or negatively reinforced and not to emit behaviors which are punished or extinguished by others" (p. 306). While this definition expanded the range of interpersonal behaviors beyond the "expression of rights and feelings" discussed by Wolpe and Lazarus (1966), it shared a similar focus for the speaker's acquisition of reinforcement.
In their discussion, Libet and Lewinsohn (1973) included their suggestions for operational measures of social skills: (a) rate of behavior emitted, (b) interpersonal efficiency, (c) action latency, (d) rate of positive reactions, and (e) interpersonal range. A person's interpersonal range was the number of individuals with whom he/she interacted. The interpersonal range and rate of positive reactions were necessarily entwined; a larger interpersonal range facilitated a higher frequency of positive reactions. However, a large interpersonal range did not guarantee positive reactions; the listener's responses were dependent on the speaker's social skills—those behaviors that have not been clearly defined.

Libet and Lewinsohn emphasized social skills in relation to depressed individuals; others focused on social skills in reference to social competence (Arkowitz, Lichenstein, McGovern, & Hines, 1975), heterosocial skills (Barlow, Abel, Blanchard, Bristow, & Young, 1977), low frequency daters (McGovern, Arkowitz, & Gilmore, 1975; Twentyman & McFall, 1975) and psychiatric patients (Marzillier, Lambert, & Kellett, 1976; Hersen & Eisler, 1978). As with assertiveness literature, a specific definition of social skills had not received agreement among those interested in the concept. Bellack (Bellack & Hersen, 1979) stated, however, that there did appear to be four elements common to most definitions: (a) the adequacy of social behaviors could be determined by
assessing the verbal and nonverbal responses being emitted, (b) social skills appeared to be situationally specific, (c) an individual might have varied in his/her overall level of social skills, as well as in the extent of his/her skillfulness in different situations, (d) because social skills were learned responses, when deficits were identified, they could be changed through training. It seemed, however, that the first element on the list did not specify clearly enough that the adequacy of the speaker's verbal and non-verbal responses must be assessed as part of an interaction rather than as existing independently of the recipient's responses.

While Libet and Lewinsohn's (1973) reinforcement definition of social skills could be applied in an analysis of any interaction (not just for depressed persons) it was not clear whether it included an additional variable— the recipient. The adequacy of the speaker's verbal and nonverbal responses referred to by Bellack (Bellack & Hersen, 1979) could be defined by the content of the statements. An assessment of the adequacy of a response focused on the speaker's ability to change the environment through his/her verbal behavior; in an interpersonal interaction, a major aspect of the speaker's environment was the recipient or listener. Including the recipient's responses to the speaker in an assessment of social skills necessitated a discussion of two other dimensions of the speaker's social behaviors—the subtle discriminations that must be made
within a "social episode" (Skinner, 1953, p. 304), and the short- and long-term consequences operating during an interaction.

Throughout an interpersonal exchange, the effective speaker would respond to subtle cues emitted by the listener and would adapt his/her verbal and nonverbal behavior accordingly. These cues included such things as eye contact, body orientation, latency of response, voice volume, and duration of response (Eisler, Hersen, Miller, & Blanchard, 1975). In order to maximize the desired change in the environment, the speaker must have adapted his/her verbal and nonverbal behavior to the cues emitted by the recipient. While some effect was achieved by an insensitive speaker, he/she was not likely to maximize change during any one interaction and, although some change might have occurred, the speaker's lack of sensitivity possibly had an unfavorable effect on future interactions.

A single social episode between a particular speaker and recipient could be analyzed as a unit complete in itself or as one in a series of actions occurring over time. A short-term view considered only whether the speaker appeared to have been reinforced by the outcome of the particular interaction: consequences for the recipient were not assessed. A fallacy in this approach was that whether or not a response had been reinforced was not determinable from any one instance (Skinner, 1969). An emphasis on the long-term consequences, however, accomplished two goals:
(a) it allowed for a more thorough assessment of the speaker's behavior by noting whether the speaker continued to emit similar responses, indicating his/her behavior had been reinforced and (b) it established whether the recipient was reinforced by the speaker's behavior as shown by the recipient's approach behaviors or responsivity to the speaker over time.

An evaluation of the short- or long-term consequences of a speaker's behavior provided for the discrimination between assertive behaviors and social skills. The definitions of assertive behavior supplied earlier as well as Libet and Lewinsohn's (1973) definition of social skills appeared to have been based on an analysis of the short-term consequences and focused on the speaker's acquisition of reinforcement without including the possible reactions of the recipient. It seemed appropriate to provide a more global definition for the term social skills in keeping with the broader view espoused by an analysis of long-term over short-term consequences. Therefore, social skills could be defined as the class of both verbal and nonverbal responses that were reinforcing to another person, defined in terms of increasing and/or maintaining the probability of the recipient's approach behaviors toward the initiator.

Assessment

Once a concept was defined, the next step established the presence or absence of the behaviors involved through
The first self-report assertiveness instrument developed for experimental purposes was the Action-Situation Inventory (Friedman, 1968). The Action-Situation Inventory contained brief descriptions of 21 behavioral situations with five or six alternative reactions from which the person designated his/her most probable response. Validity coefficients were unsatisfactory and no reliability data were presented for this instrument.

Another self-report assertiveness inventory, the Rathus Assertiveness Scale (Rathus, 1973a), was a 30-item rating scale with test-retest reliability of .78 and split-half reliability of .77 for an undergraduate population. The validation procedure for the Rathus Assertiveness Scale was a comparison of the individual's score with adjective ratings compiled by raters who "knew the subjects well." There was a significant positive correlation between the Assertiveness Scale scores and global ratings of boldness, outspokenness, assertiveness, aggressiveness, and confidence and a significant negative correlation between the Assertiveness Scale scores and rating of niceness. Criticism of the Rathus Assertiveness Scale was that the scale appeared to measure a nonspecific attitude or trait rather than a response to specific situations.

Galassi et al. (1974) developed the College Self-Expression Scale, a 50-item inventory with a 5-point Likert format for use with college students. Test-retest reliability was high (.89 and .90 on two samples), but validity
data were not satisfactory; no external behavioral measures were used to determine the predictive validity of the College Self-Expression Scale.

McFall and Lillesand (1971) utilized a restricted definition of assertiveness in the development of the Conflict Resolution Inventory. This instrument measured only one response class of assertiveness, the ability to refuse unreasonable requests. Subjects from the population being sampled rather than the researchers determined the specific situations in which inability to refuse requests was a problem. The final form of the Conflict Resolution Inventory consisted of an 8-item sheet of global impressions of assertiveness and a 35-item inventory of responses to specific refusal situations. McFall and Lillesand reported correlations of .69 and .63 between the Conflict Resolution Inventory and behavioral ratings.

All of these self-report instruments were limited to an assessment of the speaker's acquisition of reinforcement and did not generate an estimate of the potential long-term consequences of an interaction based on the recipient's probability of responding. While they possibly measured assertiveness, they did not assess social skills as previously defined.

Other self-report instruments were developed to measure those response classes of social behaviors that did not seem to fit under the rubric of "assertiveness." Lanyon (1967) attempted to assess social competence in college
males with a biographical survey (B-III). However, this instrument emphasized somewhat superficial or salesmanlike aspects of competence at the expense of more introspective aspects.

Twentyman and McFall (1975) constructed the Survey of Heterosexual Interactions for use with males as a measure of heterosexual avoidance. Items on this inventory attempted to measure the individual's perceived ability to initiate and carry out interactions with women in specific situations. No reliability or validity data were available for this instrument.

Williams and Ciminero (1978) developed a self-report heterosocial skills inventory for females based on Twentyman and McFall's (1975) Survey of Heterosexual Interactions. Each survey contained four questions on dating frequency and 20 heterosocial situations in which subjects were requested to rate their ability to initiate or carry on a conversation in a situation using a 5-point scale. Internal consistency was substantially high as measured by coefficient alpha of .89; test-retest reliability was .62. Ratings by independent observers showed subjects in the high-scoring group were considered more socially skilled than those in the low-scoring group, \( t(28) = 2.17, p < .05 \).

Levenson and Gottman (1978) combined the assessment of one aspect of social skills, dating, with assertion in their two-part instrument--the Dating and Assertion Questionnaire. The first part had nine items (four assertion,
five dating) to which the individuals indicated the likelihood of engaging in general behaviors; the second part contained five assertion and four dating items to which the individuals specified their degree of discomfort and expected incompetence. An analysis of the internal consistency resulted in a Cronbach alpha of .92 for the dating subscale and .85 for the assertion subscale. The test-retest correlation was done at 2 and 6 weeks and yielded .71 and .62, respectively, for the dating subscale and .71 and .70, respectively, for the assertion subscale. Validity analyses revealed clients to have significantly greater difficulty than normals on both the dating subscale (F (1, 159) = 52.60, p < .001) and the assertion subscale (F (1, 159) = 34.33, p < .001).

A more general survey than that developed by Twentyman and McFall (1975) was constructed by Lowe and Cautela (1978) for use with males and females. The Social Performance Survey Schedule contained both positive and negative items and rated frequency of occurrence of behaviors in heterosexual social interactions. A coefficient alpha was used to determine the internal consistency of the Social Performance Survey Schedule, which resulted in a value of .94. The Pearson Product-moment correlations between the Social Survey and the Social Avoidance and Distress Scale by Watson and Friend (1969) showed a moderate inverse relationship of -.42.
While these social skills surveys attempted to measure those social behaviors other than assertiveness, they were typically limited to one particular aspect of social behavior such as dating. Lowe and Cautela's Social Survey contained more general items but still restricted its focus to those interactions dealing with the opposite sex.

The measurement of social skills as previously defined by this author could not be accomplished with the instruments currently available. The purpose of this study was to develop a self-report inventory that would allow the individual the opportunity to predict his/her social behavior in a variety of settings with both males and females of varying degrees of familiarity across different modes of expression. The accuracy of the individual's prediction was supported or not supported by whether or not other individuals chose him/her on a sociometric instrument that assessed the probability of the recipient's approach behaviors.

Based on the hypothesized differences in response topographies for assertive behaviors versus socially skilled responses, a comparison of the Interpersonal Communication Inventory and an assertiveness inventory was considered appropriate. The College Self-Expression Scale was selected for comparison because of the following characteristics:
(a) like the Interpersonal Communication Inventory, it was a self-report, paper-and-pencil questionnaire, (b) reliability and validity data were developed using college undergraduates,
as was the Interpersonal Communication Inventory, and (c) test-retest reliability data were high.

Five research hypotheses were formulated.

1. The Interpersonal Communication Inventory would show satisfactory reliability.

2. The Interpersonal Communication Inventory would allow for an assessment of the degree of socially skillful responses in an individual's repertoire such that those individuals with high scores on the Inventory would receive more choices on a sociometric questionnaire than would those with low scores.

3. There would be a positive correlation between total scores on the Interpersonal Communication Inventory and the sum of scores on the positive items of the College Self-Expression Scale.

4. There would be a negative correlation between total scores on the Interpersonal Communication Inventory and the sum of scores on the negative items of the College Self-Expression Scale.

5. There would be a negative correlation between total scores on the Interpersonal Communication Inventory and the College Self-Expression Scale.

Method

Subjects

The subjects were college students who were enrolled in undergraduate psychology courses. A total of 102 of
the students volunteered to participate in the initial administration of the Interpersonal Communication Inventory. Of these subjects, 33 were male; 69 were female. Age of the subjects ranged from 18 to 52, with a mean age of 22. The subjects included 21 freshmen, 32 sophomores, 22 juniors, and 27 seniors.

The other 32 students who volunteered to participate were members of small groups meeting weekly as a part of their course requirements for introductory and group psychology classes. Of these subjects, 12 were male; 20 were female. Ages ranged from 18 to 32 with a mean age of 21. The subjects included 7 freshmen, 14 sophomores, 8 juniors, and 3 seniors. The students who completed all data collection procedures by responding to an attraction scale, the Interpersonal Communication Inventory, the College Self-Expression Scale, and the sociometric instrument were given extra credit toward their class grades.

**Instruments**

**Attraction Scale.** This instrument was designed to assess each subject's attraction for every other member of his/her respective group on a scale from 1 to 5 regarding six characteristics (see Appendix A). The items which comprised the scale were based on characteristics found to be significant to social psychological research (Backman & Secord, 1959; Bramel, 1969; Byrne, 1971; Griffitt & Veitch,
The six characteristics used in this study were (a) has similar values/beliefs, (b) is competent, (c) is physically attractive, (d) is pleasant and agreeable, (e) reciprocates my liking for him/her, and (f) is intelligent. A score of 1 indicated the person being rated had none or almost none of the characteristic, while a score of 5 meant the person had a great deal of the characteristic. Each subject received a mean score for each characteristic as well as a total attraction score. This total score was a grand mean derived by averaging the means of the individual items for each subject.

Interpersonal Communication Inventory. This self-report instrument consisted of 58 items, which utilized a 5-point Likert format (1 to 5), with 32 positively worded and 26 negatively worded items (see Appendix B). Total scores were determined by summing each individual's response to positively worded items; scores were reversed on remaining items and then added to the sum of the positive items. Possible scores ranged from 58 to 290.

The scale attempted to assess an individual's social skills—the class of both verbal and nonverbal responses that were likely to be reinforcing to another person. While the phenomenon of social skills was ultimately determined by another person's responses to the speaker, the speaker's self-evaluation was an attempt to predict the probability
of the recipient's responsivity or approach behaviors toward
the speaker. The degree of social reinforcement emitted
by the speaker was delineated across (a) modes of expression
(verbal or nonverbal), (b) varying degrees of familiarity
with the recipient (relatives, close friends, peers,
strangers), and (c) types of interactions (i.e., casual
conversation, self-disclosure, praise, criticism).

Items for the scale were developed from a subjective
survey of those behaviors which appeared to be members of
the response class of social skills. These more global
categories of behavior were then operationally defined
across the three dimensions mentioned earlier. A total of
26 individuals responded to the scale and gave feedback as
to the clarity of wording and the relevance of each item
based on the above definition of social skills.

**College Self-Expression Scale.** This paper-and-pencil
instrument was a 50-item self-report inventory designed to
measure assertiveness in college students. The College
Self-Expression Scale incorporated 21 positively worded
and 29 negatively worded items which used a 5-point Likert
format (0 to 4). The survey items attempted to measure an
individual's positive and negative assertiveness and self-
denial with a variety of role occupants. Total scores were
determined by summing all positively worded items and
reverse scoring and summing all negatively worded items.
Possible scores ranged from 0 to 200.
For the purposes of this study, the College Self-Expression Scale was divided into positive and negative subscales. "Positive items" were defined as those corresponding to the definition of social skills presented in this paper and were determined using four independent judges to compare each item of the College Self-Expression Scale to the definition. Those items receiving agreement among at least three of the four judges formed the positive subscale of the College Self-Expression Scale while all others comprised the negative subscale.

**Sociometric Questionnaire.** This assessment instrument was administered in small groups and consisted of two questions: (1) which person would you choose to be with in a social situation—perhaps just to talk or have a good time, and (2) which person would you want to become one of your close friends? (see Appendix C). A list of group members with their respective code numbers was presented in conjunction with the sociometric instrument.

**Procedure**

The attraction scale, self-report, and sociometric instruments previously described were administered to groups of undergraduate psychology students who volunteered to respond to the items comprising the three measures. Each group heard a prepared statement describing the rationale for the administration of these instruments and was assured of the confidentiality of their responses. Answer sheets were given to each participating student who
was requested to designate his/her age, sex, college classification and identification number. The relevant assessment instrument was handed out subsequent to gathering the demographic data.

Initial administration. The Interpersonal Communication Inventory was given to 102 college undergraduates in six classes (smallest $N = 5$, largest $N = 35$, Mean = 17), with the instructions that they were to respond to each item in the scale as it related to themselves. The administration of the scale was described as an attempt to gather information about how one perceived him/herself in various interpersonal settings. The subjects were further requested to complete the answer sheet only if they felt they could perform a sincere evaluation of their most probable behaviors regarding each of the designated situations. Demographic data was gathered and then the Interpersonal Communication Inventory was passed out to participating students.

Small group administration. During the first experimental sessions, the attraction scale was administered to five groups of undergraduate psychology students (each $N \leq 10$, total $N = 42$). At the time of the administrations, the students had been meeting weekly in small groups for 10 weeks, thus increasing the probability that they knew one another better than most students who attended large lecture classes. Each student was given an attraction scale
and a sheet listing the code numbers for all individuals in their group and were asked to write the identification numbers in the designated blanks for all group members excluding themselves. The rating scale was then explained and students were asked to indicate their opinions of all other members in the group by placing the appropriate number in the spaces provided. All five groups were assured of the confidentiality of their responses.

During the second experimental session, 32 students responded to the Interpersonal Communication Inventory, the College Self-Expression Scale and the sociometric questionnaire. There were 10 of the 42 students who did not attend class during the second experimental session; as a result, they did not complete the experiment. Each subject again received the code number sheet along with an answer sheet for the Interpersonal Communication Inventory. Subjects were given the same instructions and explanations for the Inventory that the large groups of subjects had received for the initial reliability data collection. Demographic information was collected, and each student labelled his/her answer sheet with the designated code number; the Interpersonal Communication Inventory was administered immediately after the demographic and identifying data was completed.

After returning the Interpersonal Communication Inventory answer sheets, the group of students was given another sheet with instructions to fill in the same demographic information and code number as on the Inventory
answer sheet. Copies of the College Self-Expression Scale were then handed to the students who were instructed to answer each question as they thought it applied to themselves.

Following the administration and return of the College Self-Expression Scale and answer sheets, the students were given the sociometric questionnaire and instructed to identify themselves with their code number. They were then requested to fill in the names and code numbers of the students in the group who were their first three choices for the questions being asked. Choices were limited to those group members who were present at the time of the second experimental session. Students interested in debriefing were asked to remain after class for a brief discussion with the request that they not discuss the study with anyone outside the immediate group.

Results

The initial administration of the Interpersonal Communication Inventory (N = 102) resulted in scores ranging from 159 to 271 with a mean of 218.97. The standard deviation was 22.67 and the standard error was 2.25. The research hypothesis relevant to this administration of the Inventory stated that the instrument would show satisfactory reliability. In fact, a coefficient alpha of .88 supported this first hypothesis. Further analysis of this data showed that the item-total score correlation for 50 of the 58 items was .20 or greater; scores on
the remaining eight items were not included in subsequent analyses of the Interpersonal Communication Inventory.

The second hypothesis predicted that those individuals with high scores on the Interpersonal Communication Inventory would receive more choices on a sociometric questionnaire than would those persons with low scores. The two questions were (1) which person would you choose to be with in a social situation—perhaps just to talk or have a good time, and (2) which person would you want to become one of your close friends? Analysis of the data from the small group administration used a stepwise multiple linear regression to discover which variable accounted for the largest percentage of the variance between the predictor and predicted variables. A comparison of the Interpersonal Communication Inventory and the sociometric questionnaire showed that the following correlations were not significant:

1. Question 1 and the total score on the Interpersonal Communication Inventory, \( F(1, 30) = 1.58, p > .05; \)

2. Question 2 and the total score on the Interpersonal Communication Inventory, \( F(1, 30) = 1.30, p > .05. \)

This analysis indicated that the second hypothesis was not confirmed.

In order to account for other possible sources of variability in the data, results from an attraction scale were correlated with sociometric choices. As shown in Table 1, the stepwise multiple linear regression did
Table 1
Correlations between Sociometric Questions and Predictor Variables

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<tr>
<td>1. Has similar values/beliefs</td>
<td>.60</td>
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<tr>
<td>2. Is competent</td>
<td>.34</td>
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<tr>
<td>3. Is physically attractive</td>
<td>.48</td>
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<tr>
<td>4. Is pleasant/agreeable</td>
<td>.34</td>
</tr>
<tr>
<td>5. Reciprocates my liking</td>
<td>.32</td>
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<tr>
<td>6. Is intelligent</td>
<td>.21</td>
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reveal that most of the variance in the choice data was a function of the mean ratings of some of the characteristics of other group members. By way of contrast, the correlation between the Interpersonal Communication Inventory and the sociometric questionnaire was $r = .22$ for question 1 and $r = .20$ for question 2.

The third hypothesis suggested that a positive correlation would be shown between the total scores on the Interpersonal Communication Inventory and sum of scores on the positive items of the College Self-Expression Scale. The Pearson product moment correlation of the total scores on the Interpersonal Communication Inventory with the scores from the positive subscale of the College Self-Expression Scale showed a significant positive relationship.
(r = .73, n = 32, p < .01), thus supporting the hypothesis.

The fourth hypothesis predicted a negative correlation between total scores on the Interpersonal Communication Inventory and scores on the negative subscale of the College Self-Expression Scale. This comparison resulted in a low positive correlation (r = .29, n = 32, p > .05), and the hypothesis, therefore, was not confirmed.

The final research hypothesis stated there would be a negative correlation between total scores on the Interpersonal Communication Inventory and the College Self-Expression Scale. Analysis of the data showed a significant positive correlation rather than a negative one (r = .42, n = 32, p < .05), thus disconfirming the hypothesis.

Discussion

The results of this study do support the hypothesis that the Interpersonal Communication Inventory would show satisfactory reliability. However, the data do not confirm the utility of the Interpersonal Communication Inventory as a predictor of sociometric choice. As expected, the results support the contention that the total score on the Communication Inventory would be positively correlated with the score on the positive subscale of the College Self-Expression Scale. While the data do not confirm the hypothesized negative correlation between the total score on the Communication Inventory and the negative subscale of the College Self-Expression Scale, the correlation
between them is slight and nonsignificant. There is an additional lack of confirmation for the prediction of a negative correlation between the total score on the Interpersonal Communication Inventory and the total score on the College Self-Expression Scale.

The finding that the Interpersonal Communication Inventory is a reliable assessment instrument allows for confidence in repeated use of the measure. In addition, 50 of the original 58 items show satisfactory item-total score correlation, and thus indicate that the items are measuring behavior within the same response class. One untested assumption concerns whether or not social skills are actually the response class being measured by the Inventory. This remains an empirical question, because validation of the instrument is through the consensual agreement of a small sample of individuals rather than through either role-played or in-vivo interactions.

A need for further validation may be a factor in the finding that the Interpersonal Communication Inventory is not an adequate predictor of sociometric choice. The theoretical basis for social skills being a possible predictor of choice states that a person who is very socially skillful is more likely to be a reinforcer for others and, therefore, is more likely to be approached or chosen by others to participate in social interactions or to become a close friend. The underlying rationale for the instrument may
be affected in two ways: the assumption of the level of social skills as a correlate of choice is either not disconfirmed or is totally unsupported by the data generated in this study. These two possible interpretations depend on whether the Interpersonal Communication Inventory actually assesses social skills (i.e., is a valid instrument). If the items of the Inventory do not delineate the response class of social skills, then the second research hypothesis cannot be answered, given the existing data. The possibility then remains that the level of social skills still may be a correlate of choice. If, instead, the Communication Inventory does consist of items defining the response class of social skills, then it would appear from the results that the level of social skills is relatively irrelevant to the approach behaviors of others.

This apparent lack of relevancy is not the only conjecture that may be made of the second interpretation. It is possible that the Communication Inventory does assess social skills but, due to the form of the instrument, subjects are not able to evaluate themselves accurately. For example, the items on the rating scale may be too general for a precise assessment. Items on the instrument itself may bias responses toward a higher self-rating than is valid because the behaviors being assessed are desirable ones in the culture. In addition, answers to items on the Interpersonal Communication Inventory may
require subtle discriminations that are difficult to make. In order to accurately respond to the instrument, a person must be aware of his/her past behaviors in similar situations and must have labelled his/her responding precisely. Another possible factor is that the group administration may have lowered the probability that subjects would request clarification for questions about items on the instrument due to concern for "looking stupid" in front of their peers.

All of the previous explanations are feasible. In order to pinpoint the most probable explanation, the validity of the Interpersonal Communication Inventory must be determined first. If the Inventory receives confirmation as a valid instrument, then the conjectures as to why it is not a satisfactory predictor of choice may be addressed.

The variables that do account for most of the variance in the choice data are several of the items from the attraction scale. One in particular—"has similar values/beliefs"—appears to be the best predictor of choice for both sociometric questions. Another item—"is pleasant/agreeable"—is almost as strong a predictor for choice on question 2 (but not for question 1) as similarity of values and beliefs. While ratings for "is physically attractive" are fairly highly correlated with both questions, this item is not as substantial a predictor as are the other two previously mentioned items.
When reviewing these data, it is important to consider the possible dimensions of the critical rating items. In order for an individual to discover whether or not another person holds similar values and beliefs, some amount of verbal behavior is required. Being able to affect others favorably with one's verbal behaviors is one aspect of being socially skillful. In addition, emitting behaviors that lead to a high rating of being pleasant and agreeable requires skillful verbal and nonverbal social behaviors by an individual. If the Interpersonal Communication Inventory is assumed to be a valid instrument, it is somewhat puzzling that the correlations of the Inventory with the sociometric questions are not higher. If scores on the Communication Inventory are invalid as assessments of social skills, then the confusion is resolved.

In addition to trying to determine the usefulness of the Interpersonal Communication Inventory as a predictor of choice, correlations of the Inventory with subscales and total scores of the College Self-Expression Scale would show if different response classes are being measured by different instruments. The correlation between the Interpersonal Communication Inventory and the positive subscale of the College Self-Expression Scale shows a significant positive relationship while the correlation with the Inventory and the negative subscale of the College Self-Expression Scale reveals only a very slight, nonsignificant positive
relationship. Based on these data, it appears that there are topographical differences for socially skillful and assertive responding. While there also appears to be some overlap of response classes, it seems to be minimal. When the Interpersonal Communication Inventory is correlated with the total score on the College Self-Expression Scale, however, a significant positive relationship results. Although the correlation between the Inventory and the positive subscale of the College Self-Expression Scale is higher than the correlation between the Inventory and the total score on the College Self-Expression Scale, it appears that the response topographies are more similar than dissimilar. The apparent similarity of response topographies may be distorted, however, by some of the variables mentioned previously: subtle discriminations may not be in the subjects' repertoires; individuals may not be aware of their past behaviors and, if aware, may not have labelled their behaviors accurately. A definite conclusion for different topographies cannot be reached based on the data from this study.

In summary, while the Interpersonal Communication Inventory appears to be a reliable instrument, it may not be a valid measure of social skills. The Interpersonal Communication Inventory is also not a useful predictor of sociometric choice, perhaps due to lack of validity or
confounding variables. In addition, comparisons of the Inventory and College Self-Expression Scale do not reveal a clear difference in response topographies for socially skillful versus assertive responding. Further research is necessary to clarify these issues.
Appendix A

Please indicate your view of each person in your group on a scale from 1 to 5 for each of the items listed below. A 1 means the person has/shows none or almost none of the characteristic while a 5 means the person has/shows a great deal of the characteristic.

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<td>1. Has similar values/ beliefs</td>
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<td>3. Is physically attractive</td>
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<td>4. Is pleasant and agreeable</td>
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<td>5. Reciprocates my liking for him/her</td>
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<td>6. Is intelligent</td>
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Appendix B

Interpersonal Communication Inventory

The following statements describe various ways people interact with one another. Please respond to each item according to how well it describes your thoughts or actions by filling in the appropriate space on the answer sheet.

1 seldom or sometimes about half of the time
never

2 frequently almost always or always

1. I find it easy to tell a relative that I like something they have said or done.

2. Keeping a conversation going is no problem for me as long as someone else begins it.

3. I tend to ignore what people are doing as long as they don't "rock the boat."

4. I can easily compliment someone for a "job well done."

5. I typically avoid publicly admitting I have made a mistake.

6. I can easily begin a conversation with a stranger of the opposite sex.

7. When talking to close friends, I usually show an interest in their activities by asking them questions.

8. I often point out peoples' mistakes to them.

9. I find it easy to ask someone of the opposite sex to join me in some activity.

10. When a close friend gives me a compliment, I tend to brush it off with a joke.

11. Whenever I'm listening to someone, I usually look at them to show my interest.

12. I generally "freeze up" when I'm around a person to whom I'm physically attracted.

13. I find it difficult to look at someone when I am talking to them.
15. I am uncomfortable when a close friend hugs me.
16. I find it difficult to acknowledge others' apologies to me.
17. When with a group, I introduce myself to those I don't know.
18. No matter how well I do a task, I tell myself I could have done better.
19. I will say nothing rather than make an insincere compliment.
20. During conversations with friends, I tend to touch them lightly to emphasize a point.
21. I think people feel uncomfortable around me.
22. I often don't know how to start a conversation even with a close friend.
23. When I have wrongly corrected someone, I go back and acknowledge my error.
24. I become embarrassed when I receive a compliment for something I've said or done.
25. I tend to go ahead and call someone I want to see rather than wait for them to call me.
26. When I am glad to see someone, I generally tell them so.
27. I often greet a relative with a hug and/or a kiss.
28. I sometimes realize I have forgotten to introduce someone who is not familiar to others in a group.
29. I am well-liked by those who know me.
30. I am usually willing to do a favor for a close friend even if it involves a task I dislike.
31. I find it difficult to express my feelings to others.
32. I seldom say "thank you" to persons in service jobs (sales people, waitresses, etc.) since they are only doing their job.
Appendix B—Continued

33. When I compliment someone, I genuinely mean it.
34. I find it fairly easy to apologize to a close friend after some type of disagreement.
35. I typically respond with sarcasm when other people make humorous comments.
36. I am able to realistically praise myself when I have successfully completed a project.
37. I tend to greet close friends with a hug and/or a kiss after not seeing them for awhile.
38. I feel good when I compliment someone.
39. I usually wait for my friends to call me even if I really want to see them.
40. I notice others' actions mainly when I don't like what they are doing.
41. I often thank strangers for small courtesies they have done for me (holding door open, allowing me to cross a lane of traffic, etc.).
42. I laugh readily at other people's jokes.
43. I experience difficulty in starting a conversation with a stranger of the same sex.
44. I tend to be suspicious when an acquaintance tells me they like something about me.
45. Sometimes I send a card to a close friend just to let them know I have been thinking of them.
46. I find it difficult to give compliments to close friends.
47. I am easy to talk to.
48. When I see a stranger "in distress" (dropping packages, having difficulty opening a door, etc.), I typically am reluctant to offer my help.
49. I am usually comfortable introducing people who do not know one another.
50. I often compliment strangers on some aspect of their appearance (hair, clothing, etc.).
51. I usually say something nice to "soften the blow" before I make a critical statement.

52. I find it difficult to ask someone of the same sex to join me in some activity.

53. When I am out by myself, I tend to smile at most people that I meet (talk to, see, etc.).

54. When I see someone, I tend to greet them by name instead of just saying "hello."

55. I usually smile and say "thank you" when given a compliment about my appearance.

56. I feel uncomfortable accepting favors from close friends.

57. I find it easier to tell someone what I dislike rather than what I like about them.

58. I have been told that I am pleasant company.
Appendix C

You have a list with the name and identifying number for each member of your recitation class. Find your name and number and write them in the spaces below.

Your Name ____________________________ Your Number ______________

Two questions are printed below. You are to name the persons you would choose for each question. Write the names of the persons you would choose in the spaces provided. Then use the list with names and numbers to find the number for each person you chose. Write the person's number in the proper place by the person's name.

Question 1: Which person would you choose to be with in a social situation--perhaps just to talk or have a good time?

Person's name ____________________________ Number ______________

Choice 1: ____________________________
Choice 2: ____________________________
Choice 3: ____________________________

Question 2: Which person would you want to become one of your close friends?

Person's name ____________________________ Number ______________

Choice 1: ____________________________
Choice 2: ____________________________
Choice 3: ____________________________
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