Social Validation of Nonverbal Behaviors in Social Skills Training Programs for Adolescents — I

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A questionnaire was presented to staff and students at a suburban high school. Participants were required to endorse or reject each of the 14 forced-choice propositions concerning nonverbal behaviors typically included in social skills training (SST) programs. In addition, they were asked to indicate their estimate of peer group endorsement of each proposition. Results showed that both staff and students generally endorsed similar behaviors although staff endorsements were more pronounced. Furthermore mean estimated and observed percentages within each of the two groups showed high rank-order correlations. This suggests that both groups strongly believed that others in their peer groups would share their perceptions of the propositions presented. The implications for SST programs and evaluation of the same are discussed.

Various authors have emphasized the importance of nonverbal elements of communicative competence (Argyle, 1972; Mehrabian, 1972). The value of these elements is apparent when one considers their inclusion in numerous social skills training programs (SST) with children and adolescents (cf. Combs & Slaby, 1977; Michelson & Wood, 1980; Van Hasselt, Hersen, Whitehill, & Bellack, 1979). Theoretically, successful training in such skills should enhance peer acceptance, yet this occurrence seems questionable (see Gottman, 1977; Halford, 1980; Whitehill, Hersen, & Bellack, 1980). In fact, it has not been firmly established whether the same skills considered important to adults (e.g., Argyle, 1972) are valued similarly by children and adolescents. Other factors, such as physical attractiveness, sporting ability or body type, may be of equal, if not greater importance (Foster & Ritchey, 1979; Van Hasselt et al., 1979).

One method of assessing the importance of various nonverbal skills to children and adolescents is to systematically observe them interacting in naturalistic settings (e.g., Gottman, 1977; Rinn & Markle, 1979). This may be categorized as a behavioral approach since it is primarily concerned with the individuals’ actions rather than with their cognitions. An equally valid alternative technique is to determine awareness of appropriate nonverbal skills since a disparity may exist between an individual’s recognition of appropriate skills and his/her actual behavioral repertoire. The possibility of such a disparity is suggested in the three factor theory of fears and phobias (Hodgson & Rachman, 1974; Rachman & Hodgson, 1974). Hodgson and Rachman (1974) found that there could be a significant disparity between subjects’ reports of fear and related avoidance behavior. (Though in these studies it was accepted that cognitive reports were no less valid than naturalistic observation of avoidance responses).

A suitable procedure for conducting such an investigation is through administering a questionnaire (e.g., Rippere, 1980a, 1980b). However, as the technique requires certain reading and comprehension competences, it may be inapplicable with younger, primary age children. It is, however, quite appropriate for a nonretarded adolescent population.

The present study formulated a questionnaire to ascertain whether the respondents considered certain exaggerated nonverbal behaviors bothersome.

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Specific behaviors included: voice volume, eye contact, facial gestures, body posture, distance of speaker, physical gestures, speech rate, and dysfluencies. These behaviors were selected since they have been included in various social skills training programs with children and adolescents (Combs & Slaby, 1977; Michelson & Wood, 1980; Van Hasselt et al., 1979). The literature suggests that extremes of these behaviors are equally undesirable (e.g., Bellack, 1983). Consequently, exaggerated eye-contact is as socially problematic as insufficient eye-contact. In order to substantiate (or refute) such claims, the authors proposed to present contrasting paired propositions for the respective behaviors.

Thus, for each of six of the behaviors there were two questions representing extremes, e.g., no eye-contact versus staring, and so on. However, bipolar extremes for two behaviors (dysfluencies and hand movements) could not be generated, hence only one question sampled each behavior. The questions were phrased such that respondents were required to either endorse or reject each proposition.

The overall aims of the questionnaire were to determine:

Table 1. Number and Percentage of Agreements and Disagreements to each Questionnaire Item (Columns One and Two) and Mean Estimated Percentages of Subjects Endorsing Items as True (Columns Three and Four).

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Staff (n = 19)</th>
<th>Students (n = 62)</th>
<th>Staff (n = 19)</th>
<th>Students (n = 62)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It bothers me if a person does not look at me while he (or she) is talking to me.</td>
<td>TRUE 19 (100.00%)</td>
<td>FALSE 0 (0.00%)</td>
<td>TRUE 37 (59.68%)</td>
<td>FALSE 25 (40.32%)</td>
</tr>
<tr>
<td>2. It bothers me if a person moves his (or her) hands around while he (or she) is talking to me.</td>
<td>TRUE 1 (5.26%)</td>
<td>FALSE 18 (94.74%)</td>
<td>TRUE 15 (24.19%)</td>
<td>FALSE 47 (75.81%)</td>
</tr>
<tr>
<td>3. It does not bother me if a person sits or stands very stiffly and straight while he (or she) is talking to me.</td>
<td>TRUE 8 (42.11%)</td>
<td>FALSE 11 (57.89%)</td>
<td>TRUE 44 (70.97%)</td>
<td>FALSE 18 (29.03%)</td>
</tr>
<tr>
<td>4. It bothers me if a person clears his (or her) throat or &quot;ums&quot; or &quot;ers&quot; a lot while he (or she) is talking to me.</td>
<td>TRUE 12 (63.16%)</td>
<td>FALSE 7 (36.84%)</td>
<td>TRUE 33 (53.22%)</td>
<td>FALSE 29 (46.77%)</td>
</tr>
<tr>
<td>5. It does not bother me if a person stands very close to me while he (or she) is talking to me.</td>
<td>TRUE 6 (31.58%)</td>
<td>FALSE 13 (68.42%)</td>
<td>TRUE 24 (38.71%)</td>
<td>FALSE 38 (61.29%)</td>
</tr>
<tr>
<td>6. It does not bother me if a person stares at me continuously while he (or she) is talking to me.</td>
<td>TRUE 13 (68.42%)</td>
<td>FALSE 6 (31.58%)</td>
<td>TRUE 22 (35.48%)</td>
<td>FALSE 40 (64.52%)</td>
</tr>
<tr>
<td>7. It bothers me if a person shouts at me while he (or she) is talking to me.</td>
<td>TRUE 17 (89.47%)</td>
<td>FALSE 2 (10.53%)</td>
<td>TRUE 48 (77.42%)</td>
<td>FALSE 14 (22.58%)</td>
</tr>
<tr>
<td>8. It does not bother me if a person slouches or sprawls while he (or she) is talking to me.</td>
<td>TRUE 12 (63.16%)</td>
<td>FALSE 7 (36.84%)</td>
<td>TRUE 44 (70.97%)</td>
<td>FALSE 18 (29.03%)</td>
</tr>
<tr>
<td>9. It bothers me if a person speaks too softly while he (or she) is talking to me.</td>
<td>TRUE 13 (68.42%)</td>
<td>FALSE 6 (31.58%)</td>
<td>TRUE 41 (66.13%)</td>
<td>FALSE 21 (33.87%)</td>
</tr>
<tr>
<td>10. It does not bother me if a person stands a long way from me while he (or she) is talking to me.</td>
<td>TRUE 7 (36.84%)</td>
<td>FALSE 12 (63.16%)</td>
<td>TRUE 31 (50.00%)</td>
<td>FALSE 31 (50.00%)</td>
</tr>
<tr>
<td>11. It does not bother me when a person talks very slowly to me.</td>
<td>TRUE 6 (31.58%)</td>
<td>FALSE 13 (68.42%)</td>
<td>TRUE 31 (50.00%)</td>
<td>FALSE 31 (50.00%)</td>
</tr>
<tr>
<td>12. It bothers me when a person does not smile at me while he (or she) is talking to me.</td>
<td>TRUE 5 (26.32%)</td>
<td>FALSE 14 (73.68%)</td>
<td>TRUE 6 (9.68%)</td>
<td>FALSE 56 (90.32%)</td>
</tr>
<tr>
<td>13. It bothers me when a person talks very quickly to me.</td>
<td>TRUE 10 (52.63%)</td>
<td>FALSE 9 (47.37%)</td>
<td>TRUE 41 (66.13%)</td>
<td>FALSE 21 (33.87%)</td>
</tr>
<tr>
<td>14. It does not bother me when a person frowns at me while he (or she) is talking to me.</td>
<td>TRUE 8 (42.11%)</td>
<td>FALSE 11 (57.89%)</td>
<td>TRUE 35 (56.45%)</td>
<td>FALSE 27 (43.55%)</td>
</tr>
</tbody>
</table>
(1) Whether or not adolescents agreed with the importance of the nonverbal behaviors most often trained by therapists in social skills training programs;
(2) Whether teachers, frequent referral sources for socially isolated or inadequate adolescents, concurred with adolescents on the importance of the various skills. It was predicted that the adults (staff) would be more likely to endorse the stipulated behaviors; and,
(3) Whether or not there was a significant correlation between what subjects believed was true, and what they predicted was true of others in their respective peer groups.

Method

Subjects

The 81 participants in this survey attended a state high school in an outer western suburb of Melbourne, Australia (lower-middle socio-economic class). There were two groups: a Staff group (n = 19) consisting of 6 males and 13 females, age range 22-41 (modal age 27); and a Student group (n = 62) consisting of 27 males and 35 females, age range 12-17 (modal age 16).

Procedure

A two-page Social Skills Questionnaire was used. Respondents were required to first indicate whether they agreed (or mostly agreed) or disagreed (or mostly disagreed) with each of the 14 statements, by circling the letter T (True) or F (False) according to whichever was appropriate. Secondly, respondents were asked to indicate on a 5-point scale the percentage of people in their peer group (i.e. Staff or Student) whom they believed would endorse each statement.

Though anonymity was maintained subjects supplied information concerning age, sex and year level. Half the questions were randomly phrased in the negative to prevent response bias, and the positions of the items in the questionnaire were randomly determined.

Results

Table 1 presents the 14 propositions, the numbers and percentages of endorsing subjects in each group, as well as the mean estimated percentages of peer endorsements.

The major aims of the study were to investigate whether adolescents agreed with the importance of the nonverbal behaviors presented in 14 propositions, and whether there were significant differences between staff and student responses (see Table 1). To further aid in the analysis, the negatively-marked propositions were converted to their positive counterparts and these are displayed in Table 2. Those transformed are marked with an asterisk (*). In considering the collective view of the total sample of 81 subjects, the original numbers endorsing the propositions were extracted and new collective percentages were calculated. The propositions are listed in order of degree of consensus, with actual consensus percentage being presented in brackets.

Table 2. *Mean Collective Percentages (for the Total Sample) for the Propositions When Positively Expressed.*

<table>
<thead>
<tr>
<th>Item</th>
<th>Proposition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>It bothers me if a person shouts at me while he (or she) is talking to me</td>
<td>60.25%</td>
</tr>
<tr>
<td>1</td>
<td>It bothers me if a person does not look at me while he (or she) is talking to me</td>
<td>69.14%</td>
</tr>
<tr>
<td>9</td>
<td>It bothers me if a person speaks too softly while he (or she) is talking to me</td>
<td>66.67%</td>
</tr>
<tr>
<td>5</td>
<td>It bothers me if a person stands very close to me while he (or she) is talking to me</td>
<td>62.96%</td>
</tr>
<tr>
<td>13</td>
<td>It bothers me when a person talks very quickly to me</td>
<td>62.96%</td>
</tr>
<tr>
<td>6</td>
<td>It bothers me if a person stares at me continuously while he (or she) is talking to me</td>
<td>56.79%</td>
</tr>
<tr>
<td>4</td>
<td>It bothers me if a person clears his (or her) throat or &quot;ums&quot; or &quot;ers&quot; a lot while he (or she) is talking to me</td>
<td>53.56%</td>
</tr>
<tr>
<td>11</td>
<td>It bothers me when a person talks very slowly to me</td>
<td>54.32%</td>
</tr>
<tr>
<td>10</td>
<td>It bothers me if a person stands a long way from me while he (or she) is talking to me</td>
<td>53.09%</td>
</tr>
<tr>
<td>14</td>
<td>It bothers me when a person frowns at me while he (or she) is talking to me</td>
<td>46.91%</td>
</tr>
<tr>
<td>3</td>
<td>It bothers me if a person sits or stands very stiffly and straight while he (or she) is talking to me</td>
<td>35.80%</td>
</tr>
<tr>
<td>8</td>
<td>It bothers me if a person slouches or sprawls while he (or she) is talking to me</td>
<td>30.86%</td>
</tr>
<tr>
<td>2</td>
<td>It bothers me if a person moves his (or her) hands around while he (or she) is talking to me</td>
<td>19.75%</td>
</tr>
<tr>
<td>12</td>
<td>It bothers me when a person does not smile at me while he (or she) is talking to me</td>
<td>13.58%</td>
</tr>
</tbody>
</table>

There was a significant correlation between the two groups (\( \rho = 0.57, p < .05 \)). Further, as indicated in Table 1 more than 50% of the staff group endorsed ten of the 14 propositions, while more than 50% of the student group endorsed nine of the 14 propositions when they were positively expressed (as in Table 2). Thus a similar number of propositions was endorsed by the majority in each group, although the particular propositions endorsed varied slightly between the two groups.

An item-by-item analysis using two-tailed chi-square tests was then conducted to determine the
differences and similarities between the two groups. Table 2 shows that the majority of the total sample as well as a majority within each group (Table 1) considered the following behaviors bothersome: shouting, or speaking too softly; talking very quickly, or very slowly; standing either at a great distance, or too close a distance; and voice disturbances. There were no significant differences between the two groups on any of those seven items (p's > .10), despite a greater percentage of staff endorsing all the aforementioned nonverbal behaviors except talking very quickly.

While Table 1 shows that both groups agreed with the notion that lack of eye contact was disturbing, a significantly greater proportion of staff endorsed this proposition when compared with students (df = 1, X² = 7.60, p < .01). By contrast, while it appears from Table 2 that a majority of the total sample agreed with the proposition that staring was disturbing, there were differences between the two groups. Table 1 shows that more than 50% of students but less than 50% of staff agreed with the proposition and the difference between groups achieved statistical significance (df = 1, X² = 5.15, p < .05).

The majority of the total sample (see Table 2) as well as a majority within each group (Table 1), did not consider the following behaviors bothersome: hand movements, not smiling, slouching and sprawling. There were no significant differences between the two groups on these three items (p's > .10).

While Table 2 indicates that the majority of the total sample did not appear to consider another two behaviors bothersome, Table 1 shows that there were differences between the two groups. On Item 3, more than 50% of staff, but less than 50% of students, agreed with the notion that standing stiffly and straight was disturbing, and this difference achieved statistical significance (df = 1, X² = 4.09, p < .05). Yet on Item 14, though more than 50% of staff and less than 50% of students agreed with the proposition that frowning was bothersome the difference was not statistically significant (p > .10).

The third and final aim of the study was to determine whether or not there was a significant correlation between what subjects themselves believed was true, and what they predicted was true of others in their respective peer groups. In fact positive and highly significant correlations occurred between the observed and estimated percent-ages for each of the groups (Staff, rho = .73, p < .01; Students, rho = .89, p < .001). Comparison of Columns 1 and 3 in Table 1 indicates that staff group predictions were stronger than the actual endorsements for exactly half of the total number of items. On the other hand, comparison of Columns 2 and 4 in Table 1 shows that student group endorsements were stronger than their predictions on nine of the 14 items.

Discussion

Generally, the findings appear to support the contention that both adults and adolescents may share common notions about appropriate nonverbal behaviors since there was mutual agreement on the importance (or unimportance) of 11 of the 14 items. However, it is noteworthy that adults were more forceful than the adolescents in their endorsements on 11 occasions, even though there were only two occasions where this trend achieved statistical significance. The reverse was true on just three occasions and only one of these achieved statistical significance. Overall, these data support the proposal that social behaviors may become more important as children grow older (Foster & Ritchey, 1979; Morrison & Bellack, 1981). One question worth investigation is whether or not, on each variable, there could be an age differentiation occurring in a linear progression. Another study has, in fact, investigated this notion and these data form the focus of a future report.

Social validation procedures such as subjective evaluation ratings pre-and-post treatment (Kazdin, 1977, 1982; Wolf, 1978) are becoming progressively more practiced in assessing the clinical significance of social skills training programs. Typically, this involves individuals who are in contact with the client evaluating that person on global evaluation scale(s) (Kazdin, 1982).

A major thrust of this study, in fact, implies that social skill may lie "in the eyes of the beholder". For example, in the present study a nonverbal behavior that was not significantly endorsed by the adolescent group may have variable clinical significance on a trained, formerly deficient subject. While adult raters might regard that behavior as being important in rating the subject's degree of overall social skill, it would be expected that adolescent peer group assessors would not consider this to be of particular importance in considering the individual's degree of overall social skill.

To illustrate, the nonverbal behavior of "staring" was considered significantly more bothersome by the adolescents than by the adults in the sample. Therefore, it would follow that in successfully training an adolescent to reduce the incidence of this behavior, one might certainly help

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1 All correlations were corrected for tied scores. In accordance with Siegel (1956, pp. 212-213), the significance of the obtained correlations were tested by Students' t since N was greater than 10. Significance levels are for two-tailed tests.
render that trainee (subject) more socially skilled with adolescent raters, but by no means more competent according to adults. Conversely, adults endorsed “lack of eye contact” as being more bothersome than did students. It follows, therefore, that in successfully training students to increase eye contact, this may well help the subject to be rated as more totally socially skilled by adults, but not necessarily so by their peer raters. Finally, neither adult nor adolescent raters considered “slouching posture” bothersome. Thus, an individual successfully trained to improve that behavior would not be rated as more totally skilled by either adolescent or adult raters.

The results also seem to suggest that social skills training programs would be well advised to focus on training the more postively endorsed nonverbal behaviors e.g. voice volume rather than other behaviors such as hand gestures. In the present study, several propositions received borderline endorsements (those just achieving 50% endorsements). Yet prior studies (e.g., Spence & Marzillier, 1979, 1981) have selected these nonverbal behaviors as focal points for social skills training programs. The findings would indicate that while such isolated behaviors may be regarded as important to some degree, it is possible that combinations of particular behavioral deficits would be more firmly endorsed by both adult and adolescent populations.

There were two items (Items 2 and 12) that received a particularly low percentage of endorsements from both of the groups. Either the skills concerned were regarded as unimportant by subjects, or in the case of Item 2, perhaps because the proposition did not imply an extreme behavior, e.g., “moves hands excessively or a lot”. This suggests that refinement of the questionnaire needs to be considered in future studies.

The high correlations observed between individuals’ personal endorsements and their predictions of peer group consensus suggested that both staff and students strongly believed that others would share their respective perceptions of particular events. While one should be wary of exaggerating the importance of these findings, the fact that the percentage of student endorsements was higher than their predictions of peer endorsements on a majority of items might indicate that generally, students were less confident about the preferences of others in their peer groups. For the staff, the lack of an obvious pattern precludes us from drawing any such inferences at all.

In conclusion, it must be stated that we fully recognize that there is not always concurrence between what individuals believe are appropriate and their behavioral manifestations. Indeed it is pertinent that ensuing research should determine the degree of correlation between cognitive-verbal reports of relevant social skills and actual enactment of the same.

References


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