The hypothesis was tested that humor facilitates social attraction. Students in three fourth-grade classrooms responded to two different peer rating surveys, one measuring interpersonal perceptions of humorousness and the other measuring classroom social distance. Differences between same- and cross-gender ratings were examined. Statistical interactions between the genders of the raters and of the children whom they rated were examined using a complex within and between subjects ANOVA design. Among both genders, children who were rated as more humorous were consistently perceived as more socially attractive. The findings confirm earlier research which indicates that children of the same gender rate each other as more socially acceptable and as more humorous than do children of the opposite gender. A model fitting procedure was used to statistically confirm an a priori model in which social distance was predicted to be a function of interpersonal perceptions of humor and the genders of both the raters and the children whom they rated. Results are explained in terms of social facilitation theory. Implications for positively influencing classroom sociometric structures are discussed. The document offers tables, figures, and 23 references. (RH)
Moderating Influence of Gender on the Relationship Between Humor and Peer Acceptance in Elementary School Children.

Lawrence W. Sherman, Associate Professor, Department of Educational Psychology, School of Education and Allied Professions, Miami University, Oxford, Ohio 45056

ABSTRACT. A hypothesis based on social facilitation theory tests the proposition that humor facilitates social attraction. Three separate intact classrooms (n's=24, 25 & 22) of fourth-graders responded to two different peer rating surveys, one measuring inter-personal perceptions of humorousness and the other, classroom social distance. The study replicates earlier research (Sherman, 1985a & 1985b; Sherman & Wolf, 1984) confirming the differential influence of children's genders in rating each other's humorousness and social acceptability. Differences between same- and cross-gender ratings are examined for two dependent measures, 1) inter-personal humor perceptions as measured on a five-point Likert-like rating scale, and 2) social distance which was also measured on a similarly scaled peer rating form. Statistical interactions between the genders of the raters and the children whom they rated were examined using a complex within and between subjects ANOVA design. Consistently among both genders children who were rated as more humorous were also perceived as more socially attractive. The findings confirm earlier research indicating children of the same gender rate each other as more socially acceptable as well as humorous than do children of the opposite gender. A model fitting procedure (EQS) was used to statistically confirm an a priori model in which social distance was predicted to be a function of interpersonal perceptions of humor and the genders of both the raters and the children whom they rated. The results are explained using social facilitation theory. Implications for positively influencing classroom sociometric structures are also discussed.

A paper presentation to The 7th National Conference on Humor, WHiM VII, Purdue University, April 1-4, 1988. I would like to thank Ms. Kim Thornberry for assistance in obtaining the data for this study, Dr. Richard Hofmann for his statistical expertise and aid in establishing the EQS model fitting analysis, and the Deans of the Graduate School and the School of Education and Allied Professions of Miami University for their support of this study. Requests for reprints should be sent to Lawrence W. Sherman, Associate Professor, Department of Educational Psychology, Miami University, Oxford, Ohio 45056.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY Lawrence W. Sherman-Humor page 1 TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."
INTRODUCTION

One common phrase used to describe, introduce, laud and sometimes even eulogize people is, "S/he has (had) a good sense of humor!" The sentiment of this phrase is most usually a positive one. In other words, it is better to have a good sense of humor than not to have one. Exactly what it is to have a good sense of humor is many times lost in the details of papers presented at humor conferences and the present study is not one which will attempt to answer that question. However, the mere fact that humor is seen to be such an important and positive attribute might suggest that, from a psychological and perhaps even an evolutionary (Darwin, 1955) viewpoint, it has some socially functional value. Theoretically, the thesis of this paper is that humor does have a social-psychological function which is to reduce social distance among people. As an interpersonal communication behavior, humor facilitates social interaction. Chapman's (1983) review of social interaction in and social facilitation of humor and laughter detail several factors being associated with the social facilitation of laughter including the gender, age, sexual mix of group (same- and cross-gender dyads), friendly vs strange company, as well as age-mix of groups. (See Chapman, 1973 for some earlier views on the social facilitation of laughter). He presents a relationship between social status and humor which suggests a model in which all the aforementioned variables would be predictors or determinants of humor, rather than humor being predictive of friendliness, social status, etc. Contrary to Chapman's (1983) model, the thesis of the present study is that humor in the form of interpersonal humor perceptions is predictive of social status and friendship preferences.

Earlier examination of the above thesis that humor facilitates social interaction included longitudinal and cross-sectional developmental analyses (Sherman & Wolf, 1984; Sherman, 1985a, 1985b) of the relationship between measures of children's interpersonal perceptions of humorousness and social desirability; a statistically significant (p<.01) association (r = -.71, n = 164) between these two measures was determined. Children between the ages of 8 and 13 who had the least social distance among their classroom peers also had the highest rated sense of humor. Children who were perceived by their peers as lacking in a sense of humor tended to also have the greatest social distance among their classroom peers. This correlation was also shown to be influenced by two additional variables: 1) gender and 2) age. Sherman (1985a) presented analyses which demonstrated the statistically significant (p<.01) moderating influences of gender and age on the relationship between humorousness and social acceptance. Differential same- and cross-gender as well as same- and cross-age ratings were shown to influence this relationship, especially in age-heterogeneous classrooms. The analyses of overall humor ratings, regardless of the attributes of the raters obtained a significant interaction between age and gender of rated children, however males were consistently perceived as more humorous than females at all age levels. Taken at face value this earlier study tended to confirm Ziv's (1984) previous findings that males are perceived as being more humorous than females. However when we examined their same- and cross-gender ratings we did not find any significant gender
differences, only age differences, and always a significant difference between same- and cross-gender humor ratings. Ziv's (1984) sample consisted primarily of Adolescent Israeli subjects. Our study (Sherman & Wolf, 1984; Sherman, 1985a) was done with younger subjects in a somewhat unique age-heterogeneous behavior setting. A reciprocal pattern of social preference found in the earlier study (Sherman & Wolf, 1984) may be evidence of the children's awareness of a distinct social code: girls should prefer girls for friends and boys should prefer boys. In a similar fashion there may exist some enmity between children of different ages. Perhaps each gender and age group also utilized a stereotypic kind of humor (sexist and ageist in content) which assists in maintaining this separation? The earlier analyses support this conclusion especially in behavior settings where intergroup competition might be involved (mixed-aged classrooms). While older children appeared more positively receptive to the opposite gender's humor than younger children, the two sexes clearly appreciated the humor and prefer the friendship of their own gender. Ziv (1984, pp 157-160) suggests an explanation concerning "sex-role expectations." Although developmental trends indicated that older children are perceived as more humorous as well as less socially distant than younger children, it is believed that this pattern was confounded by the effects of different behavior settings (age-heterogeneous vs age-homogeneous settings). The earlier studies did not resolve this confoundment, but certainly offered a word of caution with regard to the several statistically significant variables which may influence children's perceptions and appreciation of each other's humorousness, as well as their friendship preferences.

The late Henri Tajfel's (1978; 1982) social categorization theory, as well as the criticisms of that theory by the Polish social psychologist, Janos Reykowski (1982), were used to explain the differential gender and age group effects in the analysis of humor and social distance. Tajfel (1982) has described four key constructs which are associated with inter-group behavior: (1) social categorization, (2) social identity, (3) social comparisons, and (4) positive group distinctiveness. If one assumes that people socially create a network of various cognitive categories (social categorization), and attempt to define their own membership within those categories (social identity), as well as evaluate the characteristics which are assigned to various positions within those categories (social comparison), then perhaps one relevant dimension among those evaluative categories might indeed be a sense of humor. Reykowski (1982) has taken issue with the categorical nature of Tajfel's model and suggests a more continuous manner of measurement, similar to the social distance and humor ratings utilized in this study. It is believed that the earlier (Sherman, 1985a) relationships and confirmations of hypotheses derived from Tajfel's theory, tended to confirm the validity of his perspective concerning inter- and intra-group behaviors. In their earlier study, "Context and Ethnic Humor in Intergroup Relations," Bourhis, Gadfield, Giles & Tajfel (1977) presented evidence demonstrating the influence of intergroup relations upon the perceptions and appreciation of ethnic humor. Martineau's (1972) sociologically and anthropologically based model implies that while humor may facilitate social relations, it may also aggravate interpersonal friction and herein lies a second function of

Sherman-Humor page 3
humor: in disparaging an out-group, humor may provide the medium of expression which creates cohesion and is the bonding agent for the in-group.

Criticism of our earlier examinations of the relationship between perceptions of humor as related to social distance have focused on the uniqueness of the laboratory setting and sample of children which we used. The present study was an attempt to replicate and generalize our earlier findings to regular public school settings. Because of limitations of time and expense, the present study focused on age-homogeneous classrooms at approximately one single age level, 9-yr-olds, and thus did not examine differential age group influences. However, same- and cross-gender influences were definitely a focus of the present study. In addition, we were interested in using relatively new statistical procedures which allowed us to examine how well our obtained data fit two models: 1) Chapman's (1983) model in which social distance measures would be predictive of humor perceptions, and 2) our model, in which we suggest that humor perceptions are predictive of social acceptance.

METHOD

SAMPLE. Three intact fourth-grade classrooms of approximately equal size were used in this study. The mean ages of the children were approximately 9.6 years old. While these were co-educational classrooms, gender distribution in the three classrooms was not balanced. Only 9 of the subjects in the first classroom (n=24) were female, 14 were female in the second classroom (n=25), and 11 were female in the third classroom (n=25). The classrooms might be considered a sample of convenience (non-random) from a midwestern, suburban, predominantly middle-class public school system near Cincinnati, Ohio. All children in the respective classrooms participated in the study. All measurements took place during the Spring semester during the month of April. Thus, with regard to propinquity, the children should have been sufficiently familiar with each other, having been in these self-contained classrooms for nearly three-quarters of the school year. The two rating surveys were administered at two different times, three weeks apart.

INSTRUMENTATION.

SOCIAL DISTANCE. During the Spring semester sociometric measures in the form of ratings were obtained in the children's classrooms (See Sherman, 1984, Asher & Hymel, 1981, Kane & Lawler, 1978, as well as Miller & Gentry, 1980 for further discussions of these techniques). The scale allowed each child within any particular classroom to both give and receive from every child a rating on a 1 to 5 continuum. The rating continuum was anchored from (1) "Would like to have her/him as one of my best friends," to (5) "Wish she/he weren't in our room." Theoretically, the mean social distance scores, a continuous measure, could range from 1 to 5 and relatively low scores (1) would indicate less social distance while relatively high scores (5) would indicate greater social distance. The ratings could then be analyzed contingent upon both the gender of the raters and the ratees, so that a separate same- and cross-gender mean rating could be determined.

Sherman-Humor page 4
INTERPERSONAL HUMOR RATINGS. In a fashion quite similar to the social distance rating described above, the children were asked to rate each other with regard to how humorous they perceived one another. They were instructed as follows: "I want to find out how funny people are. By funny I don't mean funny-looking or dumb or just plain silly, I mean a person has a good sense of humor, tells good jokes, makes people laugh, and can laugh at other's jokes. Put a check mark in the column that best describes each one of your classmates on this list." The list consisted of an alpha/vertical list of children in a classroom, and the horizontal rows consisted of the five point continuum of humorous categories ranging from (1) "Not funny at all," to (5) "Very funny!" The children's mean same- and cross-gender humor ratings were then determined.

DESIGN AND ANALYSIS. Two different types of analyses were performed. The first was designed to answer the question, "Are there differences between humor and social distance ratings received by children of the same or opposite gender?" This was accomplished by using a two-way repeated measures ANOVA design where same- and cross-gender ratings were treated as a repeated measures within-subjects factor and gender of the children receiving the ratings was treated as a between-subjects factor. This design was applied to both the social distance and the humor ratings. The second design was correlational and asked "What is the relationship between between children's humor ratings and their social distance ratings? Is their a 'best fit' model which would predict children's same- and cross-gender social distance ratings from their genders and same- and cross-gender humor ratings which they received from their peers?" Both an a priori path analytic model and a test of its goodness of fit were examined. While gender of rater was not hypothesized to be significantly related to either same- or cross-gender humor ratings, it was predicted to be related to cross-gender social distance ratings. Also, same-gender humor ratings were hypothesized to be significantly (p<.01) and inversely related to same-gender social distance ratings, and cross-gender humor ratings were likewise hypothesized to be significantly (p<.01) and inversely related to cross-gender social distance ratings. The solution to these later questions and hypotheses were determined through the use of Bentler's (1985) EQS structural equations procedures. It is believed that Bentler's (1985) strategy had a far superior solution to these data than the more well known LISREL strategy (Jöreskog & Sörbom, 1984).

RESULTS

After obtaining the children's humor and social distance ratings, their same- and cross-gender ratings for both scales were determined. Thus, each child had four separate ratings, one set of two humor ratings (both a same- and cross-gender rating), and a set of two social distance ratings (both a same- and cross-gender rating). The same/cross-gender ratings then constituted repeated measures in a mixed within and between subjects ANOVA design. Gender of rater was considered as a between-subjects factor. Table 1 presents two separate two-way within/between subjects ANOVA's, one for the social distance ratings and the other for the humor ratings. A statistically
significant (p < .02) interaction between gender of rater and same/cross gender ratings was obtained for the social distance measure (F(1,72) = 5.71). While same-gender social distance means are not significantly different between the two sexes, cross-gender ratings which males received from females were significantly higher (greater social distance) than the cross-gender ratings which females received from males. Nevertheless, cross-gender ratings were significantly (p < .05) higher than same-gender social distance ratings, thus indicating less social distance among children of the same gender. Only the same/cross-gender main effect was statistically significant (p < .001) for the humor ratings (F(1,72) = 73.78). Same-gender humor ratings were significantly higher (more humor) than cross-gender ratings. Figures 1 and 2 clearly display the differences in same- and cross-gender ratings by gender of rater for either the humor or social distance ratings.

Table 1
Same- and cross-gender mean social distance and humor ratings by gender.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Type of Rating</th>
<th>Humor</th>
<th>Social Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender of rated child</td>
<td>Gender of Rater</td>
<td>Same</td>
<td>Cross</td>
</tr>
<tr>
<td>Female</td>
<td>Gender of Rater</td>
<td>2.89</td>
<td>2.12</td>
</tr>
<tr>
<td>Male</td>
<td>Gender of Rater</td>
<td>2.89</td>
<td>2.37</td>
</tr>
</tbody>
</table>

Table 2
Two 2-way within-subjects ANOVAs of same- and cross-gender (repeated measures) social distance and humor rating means by gender.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MSe</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Distance analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (gender)</td>
<td>1</td>
<td>6.33</td>
<td>10.25</td>
<td>.002</td>
</tr>
<tr>
<td>error</td>
<td>72</td>
<td>.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B (cross/same raters)</td>
<td>1</td>
<td>58.72</td>
<td>169.35</td>
<td>.001</td>
</tr>
<tr>
<td>A by B interaction</td>
<td>1</td>
<td>1.98</td>
<td>5.71</td>
<td>.02</td>
</tr>
<tr>
<td>error</td>
<td>72</td>
<td>.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humor analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (gender)</td>
<td>1</td>
<td>.60</td>
<td>.69</td>
<td>ns</td>
</tr>
<tr>
<td>error</td>
<td>72</td>
<td>.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B (cross/same raters)</td>
<td>1</td>
<td>15.29</td>
<td>73.78</td>
<td>.001</td>
</tr>
<tr>
<td>A by B interaction</td>
<td>1</td>
<td>.54</td>
<td>2.58</td>
<td>.11</td>
</tr>
<tr>
<td>error</td>
<td>72</td>
<td>.21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 1
Mean Same- and Cross-gender Social Distance Ratings Received by Male and Female Children.

Figure 2
Mean Same- and Cross-gender Humor Ratings Received by Male and Female Children.
The next step in our analyses was to inter-correlate same- and cross-gender humor and social distance ratings as well as gender of rater (0=female, 1=male) with each other. These zero-order Pearson correlations are presented in Table 3. It is interesting to note that while there is a weak positive relationship between same- and cross-gender social distance ratings (r=.31, p<.05), this same type of relationship for the humor ratings, same- and cross-gender humor, is much stronger (r=.61, p<.001). The later finding by itself might be interpreted as a measure of the reliability of our humor scale ratings. Also, same-gender humor and social distance ratings obtained the predicted inverse relationship (r=-.63, p<.001). Cross-gender humor ratings were weakly and inversely related to same-gender social distance ratings (r=-.30, p<.05) as well as to their counterpart, the cross-gender social distance ratings (r=-.40, p<.01). The only measure significantly related to the gender of the raters was cross-gender social distance (r = .40, p<.01).

Table 3
Inter-correlation matrix of same- and cross-gender social distance and humor ratings (n=74).

<table>
<thead>
<tr>
<th>Variables</th>
<th>SDs</th>
<th>SDc</th>
<th>HUs</th>
<th>HUc</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDs</td>
<td>1.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDc</td>
<td></td>
<td>.31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HUs</td>
<td></td>
<td></td>
<td>.63</td>
<td>.18</td>
<td>1.00</td>
</tr>
<tr>
<td>HUc</td>
<td></td>
<td></td>
<td></td>
<td>.61</td>
<td>1.00</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.14</td>
</tr>
<tr>
<td>Means</td>
<td>1.98</td>
<td>3.27</td>
<td>2.90</td>
<td>2.26</td>
<td>.54</td>
</tr>
<tr>
<td>St. Dev.</td>
<td>.65</td>
<td>.80</td>
<td>.72</td>
<td>.75</td>
<td>.50</td>
</tr>
</tbody>
</table>

Confirmation and testing for a best fit model of the relationship between humor and social distance was accomplished using Bentler's (1985) EQS best-fit modeling procedures. Two models were tested. The first model was based on Chapman's (1983) discussion in which same- and cross-gender humor ratings were assumed to be dependent measures and same- and cross-gender social distance ratings and gender of rater were assumed to be independent measures. Figure 3 displays a path analysis of this model. It is not believed that this model fit the data very well. A significant chi-square goodness of fit index was obtained (x2(4)=34.462, p<.001) and the Bentler-Bonett normed fit index was only .71 (non-normed fit index was only .31). The next model which was tested assumed that same- and cross-gender social distance ratings were dependent variables, and same- and cross-gender humor ratings as well as gender of rater were independent variables predicting social distance. This model made more sense to us in that we assumed that humor was a social facilitator. Indeed, this model fit our data much more efficiently. The chi-square goodness of fit test was not statistically significant (x2(4)=7.14, p<.12). The Bentler-Bonett normed fit index was .94 (non-normed fit index was .93) indicating much greater congruency between our model specifications than the model suggested by Chapman (1983).
**Figure 3**

Model 1 EQS Path Analysis Predicting Same and Cross-gender Humor Ratings from Same- and Cross-gender Social Distance Ratings and Gender of Rater.

Notes. G = gender of rater; HU = humor rating; SD = social distance rating; s = same-gender; c = cross-gender; E = standardized error.
Chi-square goodness of fit = 34.46, df=4, p<.001. Bentler-Bonett normed fit index = .72 (non-normed index = .31). Coefficients next to double-arrowed lines are correlations. Coefficients next to single-arrowed lines are standard regression weights.

**Figure 4**

Model 2 EQS Path Analysis Predicting Same and Cross-gender Social Distance Ratings from Same- and Cross-gender Humor Ratings and Gender of Rater.

Notes. G = gender of rater; HU = humor rating; SD = social distance rating; s = same-gender; c = cross-gender; E = standardized error.
Chi-square goodness of fit = 7.14, df=4, p<.13. Bentler-Bonett normed fit index = .94 (non-normed index = .92). Coefficients next to double-arrowed lines are correlations. Coefficients next to single-arrowed lines are standard regression weights.
CONCLUSIONS

In summary, a replication of an earlier study was accomplished on 74 fourth-graders in three separate classrooms. They responded to a social distance and a humor rating scale. The ratings were reconfigured into same- and cross-gender ratings on both measures. The data support Tajfel’s (1982) and Reykowski’s (1982) views regarding social motivation and inter-group conflict. Differences in gender of raters and the same- and cross-gender social distance and humor ratings were examined. Same-gender social distance ratings were significantly lower than cross-gender ratings. Likewise, same-gender ratings of humor were found to be more humorous than cross-gender ratings. These findings are quite similar to those reported earlier (Sherman & Wolf, 1984; Sherman, 1985a, 1985b). Thus, we would conclude that our earlier findings can be generalized to regular public school environments.

In addition a test of two predictive models was examined, one suggesting that humor is a function of social status, and the other suggesting social status is a function of humor. The model predicting humor from social distance perceptions was not nearly as good a fit to our data as the model predicting social distance from humor ratings. If humor is a social facilitating behavior its function might be to bring people closer together. If this is so, then humor ratings should be inversely related to social distance: e.g., children who are perceived as having a greater sense of humor should have less social distance among their classroom peers, and thus appear to be more popular than peers who are perceived to lack a sense of humor. Our data fit this second model much more efficiently than the one which we interpret to be Chapman’s (1983). Thus, it is believed that this study supports the notion that humor facilitates social interactions.

In our earlier studies we concluded that a sense of humor may be a basic social competency. It is quite surprising that among the recent dirth of studies on children’s friendships and social relations (e.g., Chapman & Foot, 1980; Wine & Smye, 1981; Schneider, Rubin & Ledingham, 1985; etc.), very few focus on humor perceptions or behaviors, and, if they do it is usually only a minor point in passing (e.g., Cole, Dodge & Coppotelli, 1982; Sherman & Burgess, 1985). From our previous analyses as well as the one presented here, humorous children appear to be more desirable and have less social distance among their peers than children who are not perceived to have a sense of humor. It may be much more fun to be around a person with a good sense of humor than one who does not possess this commodity. Gender appears to be an important factor in this relationship between perceived sense of humor and social attraction. Among fourth-graders, children of the same gender are both seen as more humorous and socially desirable than children of the opposite gender. While the present study does not address specific differences in male and female humor, this is an area of future research which probably should be pursued. Our earlier cautions concerning the moderating influences of gender on perceived social distance and humor were further strengthened by the present study: classroom sociometric techniques must take these inter-group social categorization factors into consideration. Also, while several past strategies have been reported
for intervening and helping lonely and rejected children to become more accepted by their classroom peers (e.g., Wine & Smye, 1981; Asher, Oden & Gottman, 1977), none focus upon the training of humorousness in children who appear on the peripheral edges of classroom sociometric structures. Perhaps a sense of humor is just as basic a social competency as knowing when to say "please" or "thank you". One who has mastered the skills of humorousness may be more attractive and accepted by their classroom peers.

REFERENCES


