Teachers' ratings are often used as early as the preschool period to provide an overall picture of children's behavioral adjustment and social competence. The goals of this study are to (1) show the relations among general, outcome-oriented observational categories of preschoolers' social competence and (2) specify those discrete emotions and reactions to emotions which are likely to form substantial bases of these more decontextualized teacher ratings. Thirty-one preschoolers between the ages of 31 and 54 months were rated by teachers using both the Baumrind Preschool Behavior Q-Sort and the Problem Behavior Questionnaire. They were also independently observed for emotions expressed and reactions to peers' emotions. Results indicated that there were more borderline and significant correlations between teacher ratings and observation than would be expected by chance. Stepwise multiple regression analyses revealed patterns of children's affective displays which predicted global teachers' ratings. A coherent, nonrandom relation was found between teachers' judgments of various aspects of adjustment/social competence and both children's affective expressions and their reactions to specific emotions of peers in the classroom. This study confirms a correspondence between molar and molecular means of assessing social-emotional competence in preschoolers. (Author/BN)
EMOTIONAL AND PROSOCIAL CORRELATES OF TEACHERS' RATINGS OF
PRE-SCHOOL SOCIAL COMPETENCE AND BEHAVIOR PROBLEMS

Susanne A. Denham

U.S. DEPARTMENT OF EDUCATION
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Poster Presentation from the Annual Meeting of the Eastern
Psychological Association Meeting, Rosslyn, VA: April 11, 1987

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ABSTRACT

Expression of and reaction to peers' emotional displays constitute important components of preschool behavioral adjustment and social competence. Teachers' ratings are often utilized as early as the preschool period to provide an overall picture of just such behavioral adjustment and social competence. The goals of this presentation are to (1) show the relations among general, outcome-oriented teacher ratings and more discrete, process-oriented observational categories of preschoolers' social competence and (2) at the same time, to specify those discrete emotions and reactions to emotions which are likely to form substantial bases of these more decontextualized teacher ratings. 31 preschoolers were rated by teachers using the Bauerind Preschool Behavior Q-Sort and the Problem Behavior Questionnaire; they were also independently observed for emotions expressed and reactions to peers' emotions. Results indicated that there were clearly more borderline and significant correlations than expected by chance between teacher ratings and observational categories. Stepwise multiple regression analyses delineated patterns of predictors of the global teachers' ratings; emotional domain variables are important aspects of what we call social competence in young children. Happy, sad, and angry emotion displays, as well as matching emotion, or reacting to emotion by reinforcing, sharing, looking, helping, leaving, and ignoring others' emotions may all be important bases of judgments of social competence made by adults familiar to preschool children.
EMOTIONAL AND PROSOCIAL CORRELATES OF TEACHERS' RATINGS OF PRESCHOOL SOCIAL COMPETENCE AND BEHAVIOR PROBLEMS

Expression of and reaction to peers' emotional displays constitute important components of preschool behavioral adjustment and social competence (Hoffman, 1982; Sroufe, Scharr, Notti, Lawroski, & LaFreniere, 1984; Strayer, 1980). Teachers' ratings are often utilized as early as the preschool period to provide an overall picture of just such behavioral adjustment and social competence (Bahar & Stringfield, 1974; Olson et al., 1983). Ratings are more decontextualized measures than observational data, useful when performed by persons (such as preschool teachers) who have observed ratees in a number of settings or under varying behavioral demands (cf. Cairns & Green, 1982). Some correspondence between the two methods of assessment would, however, be expected; for example, one would expect that the more behaviorally specific processes captured in observations of emotional displays and reactions to emotions would indeed predict more global teachers' ratings of social competence.

Thus the goals of this presentation are to (1) show the relations among general, outcome-oriented teacher ratings and more discrete, process-oriented observational categories of preschoolers' social competence and (2) at the same time, to specify those discrete emotions and reactions to emotions which are likely to form substantial bases of these more decontextualized teacher ratings.
Method

Subjects were 31 preschoolers (12 girls and 19 boys, mean age = 43 mos, range = 31-54 mos), of middle to upper-middle SES. Measurement included the following:

(1) EMOTIONS (happy, sad, angry, hurt, afraid, and other) and REACTIONS TO EMOTIONS (e.g., matching, reinforcing, helping, sharing, concern, leaving, looking, ignoring), observed in the classroom by independent observers (percentage agreement for emotions = .60; percentage agreement for reactions to emotions = .61);

(2) the Behar Problem Behavior Questionnaire (PBQ, Behar, 1972; scores recorded by teachers included Aggressive, Miserable/Unhappy, and Hyperactive/Irritable factor scores);

(3) the Preschool Behavior Q-Sort (Baumrind, 1969; scores recorded from teachers' sorts included factor scores for friendliness, cooperativeness, tractability, dominance, purposiveness, and independence). Test-retest reliability = .79.

(4) Picture sociometric: Children rated peers by inserting photos of classmates into boxes on which happy, sad, and neutral faces were affixed. An aggregate score (test-retest reliability = .64) was used to denote peer popularity.

Results

Table 1 shows correlations between teacher ratings with rates of emotions and various reactions to peer emotion. There were clearly more borderline and significant correlations than expected by chance.

Stepwise multiple regression analyses were performed to delineate patterns of predictors of the global teachers' ratings.
Probability for inclusion in the regression equation was made liberal (p ≤ .10) for these exploratory analyses. See Table 2 for results of these analyses.

For friendliness, two emotion variables, rate of anger (negatively weighted), and rate of happy displays resulted in an \( R^2 \) of .23 (\( F = 3.62, p < .06 \)). For dominance, rate of angry displays, reinforcement (both positively weighted), and sharing in response to emotion displays (negatively weighted) resulted in an \( R^2 \) of .24 (\( F = 3.05, p = .09 \)). Similar results held true for independence, although the predictors entered in a different order. Purposiveness was predicted by matching positive and reinforcing emotion (weighted positively) and sadness (weighted negatively; final \( R^2 = .35, F = 6.68, p < .02 \)). Results for tractability and cooperativeness were similar; tractability was predicted by matching negative emotions (weighted negatively) and looking at emotion displays (final \( R^2 = .48, F = 7.10, p < .01 \)). Cooperativeness was predicted by rate of angry displays, prosocial reaction to negative emotions (both weighted negatively), looking and helping in response to emotion (final \( R^2 = .59, F = 8.43, p < .01 \)).

As for PBO scales, aggression was predicted by rate of anger and leaving emotional displays, often angry (final \( R^2 = .44, F = 11.02, p < .001 \)). Hyperactivity was similarly predicted by leaving after peers' emotional displays, and helping in response to peer emotions (negatively weighted; \( R^2 = .36, F = 7.53, p = .01 \)). The PBO Miserable/Unhappy factor was predicted by ignoring emotions and rate of happy displays (both negatively weighted).
weighted), followed by rate of sad displays (positively weighted; \( R^2 = .44, F = 4.37, p < .05 \)).

Further, cluster analyses of subjects showed that children could be grouped efficiently according to all teacher rating scales (\( p < .001 \) except for Miserable/Unhappy). Four groups resulted—the "bears", the "friendlies", the "assertives", and the "wimps" (N's = 3, 10, 11, and 7, respectively). Table 3 indicates those observational variables on which these clusters differ.

Discussion

Regarding the first aim of this presentation, it is clear that there exist coherent non-random relations between teachers' judgments of various positive and negative aspect of adjustment/social competence, and expression of and reaction to specific emotions of peers in the classroom. Happier children look "better" overall to their teachers, whereas sadder children look less purposive and independent. Angrier children or those who match anger with anger, tit for tat, look less cooperative, less tractable, more aggressive, simply less well adjusted overall.

Multiple regression analyses substantiated these points and take them a step further—for example, children who were seen as miserable themselves were less likely to ignore others' emotions as well as being observed as quite unhappy. Perhaps they are over-empathizing. Anger seems to have a complex role in predicting elements of social-emotional competence—it was a strong predictor of rated aggression, was weighted negatively in the prediction of cooperativeness, friendliness, and tractability, but was also a positively weighted predictor of
dominance and independence. Dominance or independence were also both predicted by reinforcing the emotions of others, but not sharing; i.e., a kind of "big shot" syndrome where children bestow some positive responsivity, but do not go so far as to share. Also, looking at emotions (attending while doing nothing), a rather passive behavior, was a strong positive predictor of both cooperativeness and tractability. In these classrooms cooperative, tractable children were in fact more passive "tagalongs", as this result would suggest. Strong cluster groupings of subjects according to teacher ratings, and differences on observational variables for different clusters, lend strong support to the foregoing results.

In summary, this study confirms considerable correspondence between molar and more microanalytic means of assessing social-emotional competence in preschoolers. Teachers' judgments on the PBQ and Baumrind Q-Sort were in many cases related to children's observed emotions and reaction to their peers' emotions. It is also clear that these emotional domain variables are important aspects of what we call social competence in young children. Happy, sad, and angry emotion displays, as well as matching emotion, or reacting to emotion by reinforcing, sharing, looking, helping, leaving, and ignoring others' emotions may all be important bases of judgments of social competence made by adults familiar to preschool children.
References


### Table 1

**Correlations of Teacher Ratings Variables and Observational Emotion Variables**

<table>
<thead>
<tr>
<th>Observational Variables</th>
<th>Happy</th>
<th>Sad</th>
<th>Angry</th>
<th>Match</th>
<th>Match</th>
<th>Rein</th>
<th>Help</th>
<th>Ignore</th>
<th>Look</th>
<th>Leave</th>
<th>Prosocial Aggregateb</th>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Aggregate</td>
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<td></td>
<td></td>
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<table>
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<tr>
<th>Teacher Ratings</th>
<th>Friendly</th>
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<th>.17</th>
<th>-.36</th>
<th>.18</th>
<th>-.31</th>
<th>.13</th>
<th>.17</th>
<th>-.07</th>
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<th>-.18</th>
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<td>Tractable</td>
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<td>.24</td>
<td>-.56</td>
<td>.03</td>
<td>-.59</td>
<td>-.30</td>
<td>.09</td>
<td>-.16</td>
<td>.55</td>
<td>-.30</td>
<td>-.06</td>
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<tr>
<td>Dominant</td>
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<td>-.16</td>
<td>.41</td>
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<td>-.06</td>
<td>.10</td>
<td>-.41</td>
<td>.54</td>
<td>.17</td>
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<td>Miserable/Unhappy</td>
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<td>.37</td>
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<td>-.31</td>
<td>.42</td>
<td>-.08</td>
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</table>

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**Notes:**

- a d.f. = 29; p < .10 at .30; p < .05 at .36; p < .01 at .45.
- b Prosocial aggregate = Matching Happy + Reinforcing + Helping.
- c First six teacher variables are factor scales from the Baumrind Preschool Behavior Q-Sort.
- d Baumrind Aggregate = Friendly + Cooperative + Purposive + Independent.
- e Next four teacher variables are Preschool Behavior Questionnaire factors.
Table 2

Multiple Regression Analyses of Observational Variables
Predicting Teacher Ratings

<table>
<thead>
<tr>
<th>Step</th>
<th>Predictor</th>
<th>( R ) (Beta)</th>
<th>( R^2 )</th>
<th>( F )</th>
<th>( p )</th>
</tr>
</thead>
</table>

**Criterion Variable: Friendly**

1. Angry  
   \( .359 \)  
   (-.359)
   \( .125 \)
   \( 4.29 \)
   .05

2. Happy  
   \( .483 \)  
   (.323)
   \( .233 \)
   \( 3.82 \)
   .06

**Criterion Variable: Cooperative**

1. Angry  
   \( .592 \)  
   (-.592)
   \( .329 \)
   \( 15.69 \)
   .00

2. Looking  
   \( .474 \)  
   (.373)
   \( .436 \)
   \( 6.55 \)
   .02

3. Prosocial to Negative Emotions  
   \( .530 \)  
   (-.252)
   \( .479 \)
   \( 3.21 \)
   .09

4. Helping  
   \( .803 \)  
   (.509)
   \( .590 \)
   \( 8.43 \)
   .01

**Criterion Variable: Tractable**

1. Matching Negative Emotions  
   \( .590 \)  
   (-.590)
   \( .348 \)
   \( 15.45 \)
   .00

2. Looking  
   \( .692 \)  
   (.389)
   \( .480 \)
   \( 7.10 \)
   .01

**Criterion Variable: Dominant**

1. Angry  
   \( .407 \)  
   (.407)
   \( .166 \)
   \( 5.77 \)
   .02

2. Reinforcing Others' Emotions  
   \( .512 \)  
   (.311)
   \( .262 \)
   \( 3.64 \)
   .07

3. Sharing  
   \( .580 \)  
   (-.278)
   \( .337 \)
   \( 3.05 \)
   .09
Table 2 (continued)

<table>
<thead>
<tr>
<th>Step</th>
<th>Predictor</th>
<th>Criterion Variable: Purposive</th>
<th>B (Beta)</th>
<th>R</th>
<th>2</th>
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### Table 3

**ANOVA Results for Observational Variables: Subjects Grouped by Teacher Ratings Cluster**

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<td>Happy</td>
<td>4.49</td>
<td>.01</td>
<td>Bears &lt;, Friendlies &gt;</td>
</tr>
<tr>
<td>Sad</td>
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<td>Wimps &gt;</td>
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<td>7.52</td>
<td>.001</td>
<td>Bears &gt;, Wimps &lt;, Friendlies &lt;</td>
</tr>
<tr>
<td>Matching Negative</td>
<td>6.22</td>
<td>.01</td>
<td>Bears &gt;, Wimps &lt;</td>
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<td>.02</td>
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<td>Bears &gt;, Assertives &lt;, Wimps &lt;</td>
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<td>Assertives &lt;, Bears &gt;</td>
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<td>Sociometric Rating</td>
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<td>.05</td>
<td>Bears &lt;, Friendlies &gt;</td>
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