ABSTRACT

        This study examined children's awareness of peers'
perception of them in three areas of social behavior:
Sociability-Leadership, Aggressive-Disruptive, and
Sensitive-Isolated. Subjects were 175 first- through fifth-grade
students who evaluated same-sex classmates using the standard version
of the Revised Class Play (RCP) behavior nomination measure. Subjects
also completed a perspective-taking version of the RCP, which
measured subjects' beliefs about peer perceptions of their behavior.
In addition, students evaluated same-sex classmates using standard
sociometric nominations and ratings. Based on these data, students
were assigned to five sociometric status groups: popular, rejected,
neglected, controversial, and average. Results indicated that RCP
scores (peer evaluations) significantly added to predictability over
and above gender, grade, and sociometric status for awareness of both
Sociability-Leadership and Aggressive Disruptive social behaviors.
Children improved with age in their accuracy of their beliefs about
their peers' perceptions of their Aggressive-Disruptive behaviors.
Accuracy of perceptions of Sensitive-Isolated behaviors was not
related to scores on these behaviors or other variables. Sociometric
status did not predict awareness of behaviors, suggesting that
whereas behaviors are correlated with sociometric status, awareness
of those behaviors by the children is relatively independent of this
classification. (MM)

Children's Awareness of Their Social Behaviors

Christine D. MacDonald

Department of Psychology

Memphis State University

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Abstract

First through fifth grade students (total = 175) evaluated same-sex classmates in terms of a) the standard version of the Revised Class Play behavior nomination measure (i.e., "Who do you think could best play each of these roles?"), and b) a perspective-taking version of the Revised Class Play (i.e., "Who do you think would nominate you for each of these roles?"). As expected, rejected status children received higher scores for Aggressive-Disruptive and Sensitive-Isolated behaviors than for Sociability-Leadership behaviors; popular status children received higher scores for Sociability-Leadership behaviors and lower scores on Aggressive-Disruptive and Sensitive-Isolated behaviors. A pair of factor analyses performed on the standard and perspective-taking versions of the Revised Class Play showed that children used fewer orthogonal dimensions when thinking about their peers' perceptions of them than when thinking about their peers. Children who were seen as high in Sensitive-Isolated behaviors knew that many of their classmates saw them this way, but they were unaware of the specific children who nominated them for these behaviors. Children who scored high on Aggressive-Disruptive behaviors knew that many of their classmates saw them this way, and they knew specifically who nominated them for these behaviors. Children who were seen as high in Sociability-Leadership behaviors did not see themselves as necessarily receiving a high number of nominations for these behaviors, but they were aware of the specific children who nominated them for these behaviors. Awareness of peers' perceptions is not a global attribute of certain children, but is dependent on the dimension being assessed.

Purpose

Knowledge about how the members of a peer group interpret an individual's behavior is critical for peer relations. Dodge, Pettit, McClaskey, and Brown (1986) demonstrated a social cognition and social behavior cycle of influence. How a child interprets social cues influences the child's social behaviors which in turn are interpreted and responded to by peers. This cycle relates to a child's popularity or sociometric status. Lacking in Dodge's account is the influence of the extent to which children are aware of the evaluation of their behaviors by peers. The present research addressed this important and basic social perspective-taking ability.

Three important types of social behaviors are related to children's sociometric status: aggression, sociability, and withdrawal (Newcomb, Bukowski & Pattee, 1993). We examined children's awareness of their peers' perception of them in terms of these three important types of social behavior, using the Revised Class Play (RCP) (Masten, Morison & Pellegrini, 1985). It might be hypothesized that rejected children would be less aware of which of their classmates would choose them for specific roles on the RCP. Our previous research (MacDonald & Cohen, under review) has shown that sociometric awareness was not globally related to sociometric status. Rather, children who were evaluated highly along either a liking or disliking dimension were more aware of the specific peers who evaluated them as such. Thus, in the present research, it was hypothesized that children who scored higher on a specific type of behavior would be more aware of which of their peers perceived them as performing that type of behavior.

Method

A total of 175 1st through 5th graders attending a public elementary school participated. The perspective-taking version of the Revised Class Play (RCP) was administered immediately after the standard version. The tasks were delivered in group format by two adults. The order of tasks was counterbalanced across classrooms at each grade level.

Standard Version of the Revised Class Play

Each child nominated one same-sex peer for each behavior description on the RCP (Masten et al., 1985). This questionnaire provides three factor analytically determined subscales: Sociability-Leadership, Aggressive-Disruptive, and Sensitive-Isolated.

Perspective-Taking Version of the Revised Class Play

The format for the perspective-taking version of the RCP (i.e., "Who do you think would nominate you for each of these roles?") was identical to the original measure. Children were allowed to choose as many classmates as they wished for each behavior description.

Sociometric Measures

The children evaluated same-sex classmates using standard sociometric nominations (three children you "like best") and ratings (a six-point scale ranging from "like very much" to "like very little"). From these data, children were assigned to five sociometric status groups: Popular (14.3%), Rejected (17.1%), Neglected (15.4%), Controversial (4.0%), and Average (17.7%) using the technique developed by Asher and Dodge (1986). This left 31.4% of the children in our sample unclassified. Since initial analyses yielded no statistically significant differences between the Average and Unclassified groups, their data were combined.

Results

Four sets of analyses are presented. Fi--t the three subscale scores derived from the Revised Class Play (RCP) were analyzed in a repeated measures ANOVA, in order to examine the relationship between sociometric status and the behavior subscales of the RCP for our sample. The second set of analyses consisted of a pair of rotated factor analyses. The first of these factor analyses was conducted on the data from the standard version of the RCP to provide a replication of Masten, et al. (1985). A similar factor analysis was performed on the data from the perspective-taking version of the RCP. This second factor analysis was performed in order to determine whether children used the same three dimensions when they thought about their peers' perceptions of their behavior as they did when considering their peers' behaviors.

In the third set of analyses, correlations were calculated between the raw number of nominations received and the raw number of nominations children thought they would receive for each of the three behavior subtypes. The fourth set of analyses examined accuracy of children's social perspective-taking for the three behavior subscales of the RCP by comparing expected nominations for behaviors to actual nominations received. This comparison was made by using signal detection techniques, which involved comparing the specific people from whom nominations were expected and received. Three hierarchical multiple regression analyses are reported (one for each of the subscales).

Results (Continued)

Repeated Measures ANOVA

A 2 (Gender) x 5 (Sociometric Status Groups: Popular, Rejected, Neglected, Controversial, Average) x 3 (Subscale: Aggressive-Disruptive, Sociability-Leadership, Sensitive-Isolated) repeated measures ANOVA was conducted on the three subscale scores of the RCP. As we expected, rejected status children scored higher on Aggressive-Disruptive and Sensitive-Isolated behaviors than on Sociability-Leadership behaviors; popular status children scored high on Sociability-Leadership behaviors and low on Aggressive-Disruptive and Sensitive-Isolated behaviors.

Factor Analyses

Standardized numbers of nominations received by each child for each of 26 items on the standard version of the RCP were subjected to factor analysis. Following Masten et al.'s (1985) procedure, a principal-components analysis was conducted. For the standard version of the RCP, the slope of the eigenvalues and the scree test suggested that three main factors were present, accounting for 48.2% of the total variance. Therefore, three principal factors were rotated to the varimax criterion of simple structure, resulting in the same three orthogonal factors found by Masten et al. (1985). (See Table 1.) All the positive items loaded substantially on the first factor, a dimension that was labeled Sociability-Leadership (S-L). The negative items generally divided into two factors that were labeled Aggressive-Disruptive (A-D) and Sensitive-Isolated (S-I). Internal consistency for the three factors was reasonably high. The alpha reliability coefficients of the three factors were as follows: .87 for the S-L scale, .88 for the A-D scale, and .78 for the S-I scale.

Table 1

Rotated Three-Factor Structure of the Standard Version of the Revised Class Play

	Factor 1	Factor 2	Factor 3
Factor 1: Sociability-Leadership			
1. Good leader	.78	-.04	-.10
25. Everyone likes to be with	.68	.08	-.29
12. Everyone listens to	.66	.12	-.25
26. Can get things going	.62	.15	-.09
4. Has good ideas for things to do	.60	-.08	-.07
9. Has many friends	.60	.09	-.28
7. Someone you can trust	.60	-.24	-.17
23. Helps other people when they need it	.59	-.20	.03
13. Plays fair	.58	-.36	-.01
10. Will wait their turn	.57	-.31	.10
16. Good sense of humor	.52	-.04	-.23
28. Usually happy	.45	-.31	.02
30. Likes to play with others rather than alone	.37	-.04	.07
Factor 2: Aggressive-Disruptive			
29. Picks on other kids	-.02	.84	.07
27. Teases other children too much	-.07	.81	-.03
2. Gets into a lot of fights	-.20	.79	.17
5. Loses temper easily	-.03	.74	.24
6. Shows off a lot	-.03	.70	-.02
21. Too bossy	.01	.68	.01
8. Interrupts when other children are speaking	-.25	.57	.30
Factor 3: Sensitive Isolated			
24. Usually sad	.04	.03	.78
22. Often left out	-.14	-.00	.77
14. Has trouble making friends	-.20	.31	.67
3. Rather play alone than with others	-.14	-.07	.65
15. Acts like a little kid	-.20	.29	.56
11. Feelings get hurt easily	-.02	.11	.50

Note: Based on total nominations received for each child on each of 26 items. Item scores were standardized within gender and classroom. Three principle factors, accounting for 48.2% of the variance, were rotated to varimax criterion.

Results (Continued)

Next, the standardized item scores for the perspective-taking version of this measure were submitted to an identical factor analysis procedure. For the perspective-taking version of the Revised Class Play, the slope of the eigenvalues suggested that two main factors were present, with the first two principal components accounting for 44.1% of the total variance. Therefore, two principal factors were rotated to the varimax criterion of simple structure, resulting in the two orthogonal factors shown in Table 2. All of the positive items loaded substantially on the first factor, labeled Positive, while all of the negative items loaded on the second factor, labeled Negative. Again, internal consistency for the dimensions was reasonably high. The alpha reliability coefficients of the two factors were: .90 for the Positive scale, and .87 for the Negative scale.

Table 2

Rotated Two-Factor Structure of the Perspective-taking Version of the Revised Class Play

	Factor 1	Factor 2
Factor 1: Positive		
13. Plays fair	.81	.08
9. Has many friends	.77	-.05
25. Everyone likes to be with	.74	.10
16. Good sense of humor	.73	.09
12. Everyone listens to	.72	.19
10. Will wait their turn	.71	.07
30. Likes to play with others rather than alone	.70	.20
4. Has good ideas for things to do	.66	-.10
7. Someone you can trust	.64	.05
23. Helps other people when they need it	.63	.30
26. Can get things going	.62	.15
28. Usually happy	.53	.16
1. Good leader	.41	-.01
Factor 2: Negative		
22. Often left out	.20	.74
24. Usually sad	-.05	.69
15. Acts like a little kid	.03	.68
6. Shows off a lot	.12	.68
8. Interrupts when other children are speaking	.02	.64
14. Has trouble making friends	.12	.63
3. Rather play alone than with others	-.10	.62
21. Too bossy	.10	.61
27. Teases other children too much	.25	.59
29. Picks on other kids	.25	.56
11. Feelings get hurt easily	.27	.52
2. Gets into a lot of fights	-.21	.49
5. Loses temper easily	.28	.45

Note: Based on total nominations received for each child on each of 26 items. Item scores were standardized within gender and classroom. Three principle factors, accounting for 44.1% of the variance, were rotated to varimax criterion.

Results (Continued)

Correlations: Standard and Perspective-Taking Revised Class Play

Correlations were calculated for the raw number of nominations received and the raw number of nominations children thought they would receive for each behavior subtype. Number of nominations received and number of nominations expected were significantly correlated for Aggressive-Disruptive behaviors (r = .191, p < .013) and for Sensitive-Isolated behaviors (r = .482, p < .001). Thus, the more nominations a child received for these behaviors, the more nominations they expected to receive for them. This result led us to examine whether children were aware of who among their classmates perceived them in this light.

Multiple Regression Analyses

To assess accuracy of awareness of behaviors, a signal detection analysis was applied to the two sets of RCP nominations (standard and perspective-taking), yielding a measure of accuracy (d' score) for each child for each item. This measure takes into account differences in group size, as well as response biases. The calculation of d' takes into account both "hits" and "false alarms." In terms of our data, hits were defined as those instances when a child believed that a specific person nominated him or her for a particular behavior, and that person indeed picked that child for that item. A false alarm was calculated as those instances when a child believed that a specific person selected him or her for an item when in fact that person did not. A mean d' score for each child for each the three subscales was calculated. These three means then served as dependent variables in separate hierarchical multiple regression analyses.

Grade and Gender were entered in the first step of each regression analysis. Sociometric Status was effect coded and entered on the second s*ep. Finally, the three Revised Class Play factor scores from the standard administration of the instrument (Sociability-Leadership, Aggressive-Disruptive, and Sensitive-Isolated) were entered in the third step. In the analysis predicting awareness of Sociability-Leadership nominations, the only significant predictor was the standardized number of nominations for Sociability-Leadership behaviors received, R^2 = .11, F (9, 159) = 2.11, p <.03. In the analysis predicting awareness of Aggressive-Disruptive nominations, Grade and the standardized number of nominations for Aggressive-Disruptive behaviors received were both significant predictors, R^2 = .16, F (9, 159) = 3.32, p <.001. In the analysis predicting awareness of Sensitive-Isolated nominations, the regression equation did not attain statistical significance at any step, R^2 = .07, F (9, 158) = 1.24, p <.28.

Conclusions

When thinking about and reporting on their peers' behaviors, children used three dimensions: Aggressive-Disruptive, Sociability-Leadership, and Sensitive-Isolated. On the more reflective task of thinking about their peers' perceptions of their own behaviors, children used only two orthogonal dimensions: Positive and Negative. Thus, children used fewer orthogonal dimensions when thinking about their peers' perceptions of them than when thinking about their peers.

The RCP scores (i.e., peer evaluations) significantly added to predictability over and above Gender, Grade, and Sociometric Status for awareness of both Sociability-Leadership and Aggressive-Disruptive social behaviors. Thus, children who were higher in one of these two types of social behaviors were more accurate in their beliefs about their peers' perceptions of them in terms of these behaviors. Further, children improved with age in their accuracy of their beliefs about their peers' perceptions of their Aggressive-Disruptive behaviors. Accuracy of perceptions of Sensitive-Isolated behaviors was not related to scores on these behaviors or to the other variables in the equation. Perhaps when children think about how others perceive them, they use fewer dimensions than when they think about their peers. Also, Sensitive-Isolated behaviors are low visibility behaviors, and it may be that they are simply even less discernible to the child who is characterized by their peers as demonstrating them.

Children's scores on two of the subscales of the standard version of the RCP (Aggressive-Disruptive and Sensitive-Isolated) were significantly correlated with their scores on the perspective-taking version. Children

Conclusions
(Continued)

who scored high on these behaviors either did not think that they necessarily received a high number of these nominations or modestly chose not to report them.

Sociometric status did <u>not</u> predict awareness of behaviors, suggesting that while behaviors are correlated with sociometric status, awareness of those behaviors by the children is relatively independent of this classification. The degree of accuracy with which children thought about their peers' perceptions of behaviors was dependent on the degree to which they were perceived as performing that type of behavior. Children high in Sensitive-Isolated behaviors knew that many of their classmates saw them this way, but were unaware of the specific children who nominated them for these behaviors. Children high in Aggressive-Disruptive behaviors knew that many of their classmates saw them this way, and knew specifically who nominated them for these behaviors. Children high in Sociability-Leadership behaviors did not see themselves as receiving a high number of nominations for these behaviors, but were aware of the specific children who nominated them for these behaviors.

Social behaviors are related to sociometric status, but other factors also play a role in determining a child's sociometric status. Sociometry does predict awareness of liking or disliking, but is not related to awareness of behaviors. Rather, children who were evaluated highly along a dimension were more aware of their peer's perceptions of them on that dimension, but only on that dimension. Thus, awareness of peers' perceptions is not a global attribute of certain children, but is dependent on the dimension being assessed.

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