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AUTHOR Johnson, Terry D.; And Others
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ABSTRACT

Employing a new procedure for measuring peer concepts, this study investigated the development of differentiation and accuracy of children's concepts of their peers' attributes. Subjects, 18 second-graders, 23 fourth-graders, and 18 sixth-graders, were asked to rate characteristics of their peers in mathematics, athletics (running), and in two social areas - anger and shyness. To compare methods, the attribute questions were also asked in a paired-comparisons picture sociometric procedure. To assess response accuracy, measures of each child's actual skills or characteristics were obtained by using mathematics grades, a running speed measure, and teachers' ratings of anger, shyness, and popularity. In general, analyses indicated that differentiation and accuracy of children's concepts of their peers' attributes increased with age. While second-graders viewed many of the attributes as being related, they did show some differentiation. Fourth-graders differentiated more than second-graders, but saw running ability as related to popularity and shyness as negatively related to running ability. By sixth grade, the attributes are seen as distinct except that children who angered easily were seen as unpopular. In comparison with the paired-comparison task, the rating-scale method revealed differentiation and accuracy at an earlier age. It is concluded that the rating-scale technique appears to be a viable method for the assessment of children's -- especially young children's -- concepts of their peers. (RH)

The Development of Children's Concepts of Peers' Attributes

Terry D. Johnson, Leda M. Trejos, Jeffrey J. Lockman,
Barbara E. Moely, and Haifleigh Hall

Department of Psychology, Tulane University
New Orleans, LA 70118

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Purpose

This study examined the development of children's concepts of their peers' attributes. A mature differentiated view of one's peers entails understanding that both positive and negative qualities may exist in the same person, and that a person may be proficient in some abilities without being proficient in others. For example, someone may be good in math but poor in reading. Two areas in psychology have focused on how children perceive their peers. One of these areas is sociometric assessment which is traditionally concerned with measuring how well children are liked or disliked by their peers (Moreno, 1934). A frequently used sociometric technique is the rating-scale measure in which children rate each classmate according to a particular criterion, usually how much they like or would like to play with the peer in question. A related technique is that of peer assessment which includes the Guess Who procedure (Hartshorne, May, & Maller, 1929). This procedure requires children to specify certain abilities, characteristics, or traits of their peers. To date, the areas of sociometric assessment and peer assessment have been relatively unconcerned with the social cognitive abilities necessary to make judgments of peers' characteristics and the developmental changes in the nature of these judgments.

The second area which has studied children's concepts of their peers originates from a social cognitive perspective. This approach has been concerned primarily with the cognitive changes

associated with the process of person perception. A frequently used method in this area is to ask children to describe individuals whom they know. According to the person perception literature, it is not until late childhood that children view their peers in a differentiated manner. However, the heavy verbal demands of the free description method may actually mask younger children's competence.

Recent efforts have been made to develop new assessment procedures requiring less verbal proficiency. Measures such as illustrated questionnaires (Ladd & Emerson, 1984) and variations of sociometric techniques such as the paired-comparisons task (Lockman & Trejos, 1985; Moely & Johnson, 1985) have demonstrated that by middle childhood, children may have a differentiated view of their peers. In the present study, a new procedure for measuring peer concepts was derived from a rating-scale sociometric of Asher, Singleton, Tinsley, and Hymel (1979). Children's responses using this new procedure were compared with those given in a paired-comparisons task that also made few verbal demands and had been used in previous work (Lockman & Trejos, 1985; Moely & Johnson, 1985).

Method

Subjects

Subjects consisted of a classroom each of 18 second-graders (Mean age = 7.4 years), 23 fourth-graders (Mean age = 9.6 years) and 18 sixth-graders (Mean age = 11.7 yers).

Materials and Procedure

For the rating-scale task, each child participated in three individual sessions. Two attribute questions were given in each of the first two sessions, and in the third session one attribute question was given as well as a subset of the questions in order to assess test-retest reliability. Children were asked about characteristics of their peers in mathematics, athletics (running), and in two social areas -- anger and shyness. A sociometric question was also asked. Children were also given several of these attribute questions in additional sessions using a paired-comparisons picture sociometric procedure.

The rating scale consisted of five points and employed drawings representing continuums of the attributes in question. For each attribute, the children were shown photographs of their classmates, and they were to indicate the drawings along the continuum that best described each peer. Test-retest reliabilities on a subset of these questions averaged .66 for second graders, .7[illegible] for fourth graders, and .82 for sixth graders. These reliabilities were comparable to previous reports in the literature using the rating-scale technique.

After each child's choices had been obtained, independent measures of each child's actual skills or characteristics were obtained by using mathematics grades, a running speed measure, and teachers' ratings of anger, shyness, and popularity.

Results

For each grade, children's ratings of peers for each attribute were correlated with those made for each other attribute that was queried. Partial correlations were used to control for the actual relationships between the attributes. Thus, for example, when examining the degree to which the children viewed classmates who were seen as proficient in math as also being proficient in running, the actual correlation between math grades and running speed was held constant statistically.

In general, analyses indicated that differentiation increased with age. Second graders viewed many of the attributes as being related in their classmates (see Table 1). They viewed math ability, running ability, and popularity as being negatively related to anger. In addition, peers seen as good in math were also seen as being good runners. Even though second graders viewed many of the attributes as being related, they did show some differentiation amongst the attributes in question. Fourth graders evidenced more differentiation; they viewed most of the attributes as being distinct (see Table 2). However, running ability was seen as related to popularity, and shyness was seen as being negatively related to running ability. By sixth grade, the attributes are seen as distinct with the exception of viewing children who angered easily as being unpopular (see Table 3). Accuracy of the children's responses relative to the independent measures also showed an increase with age (see Table 4). Second graders were more accurate than in previous reports. They were accurate in

judging math ability, running ability, and they agreed with the teacher's judgments of anger and popularity. Accuracy continued to increase with age, with sixth graders being accurate in all their judgments of peers' attributes. In general, when the rating-scale method was employed, mature differentiation and accuracy appeared at an earlier age than when the paired-comparison task was used.

Conclusions

These data indicate that by middle childhood, children are already viewing their peers in a differentiated fashion. They have begun to realize that their peers may possess varying degrees of attributes -- not simply a cluster of positive or negative ones. In the present study, even second graders evidenced some degree of differentiation of the attributes. This differentiation continued to increase with age. It appears that a major change in differentiation occurs sometime between second and fourth grades. This is an earlier age than is usually reported in the person perception literature. Because of the success of this methodology in demonstrating considerable differentiation and accuracy in second graders, we are considering using this method with even younger children. Both the rating scale and the paired-comparisons methods make very limited verbal demands in relation to the questioning typically employed in the person perception research. In addition differentiation and accuracy of children's judgments can be assessed using these methods which are reliable as well. Also, the utilization of visual aids in the rating-scale task may make this method of assessment of peer concepts even more

appropriate for young children. This study demonstrates the utility of adapting sociometric measures to ask questions more typically asked in the person perception literature. In conclusion, the rating-scale technique appears to be a viable method for the assessment of children's — especially young children's concepts of their peers.

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Table 1

Partial Correlations of Choices for Each Attribute Question by Children in Grade 2 (N=18)

	ANGRY	SHY	MATH	RUNS
LIKES	-.63*	-.12	.30	.38
ANGRY		.36	-.57*	-.57*
SHY			-.36	-.26
MATH				.84***

*p < .05
**p < .01
***p < .001

Table 2

Partial correlations of choices for each attribute question by children in Grade 4 (N=23)

	ANGRY	SHY	MATH	RUNS
LIKES	-.25	-.41	.19	.51*
ANGRY		-.40	-.15	.13
SHY			-.21	-.64**
MATH				.27

*p < .05
**p < .01
***p < .001

Table 3

Partial correlations of choices for each attribute question by children in grade 6 (N=18)

	ANGRY	SHY	MATH	RUNS
LIKES	-.51*	-.35	.22	.07
ANGRY		-.17	.02	.25
SHY			-.09	-.31
MATH				.01

*$p < .05$
**$p < .01$
***$p < .001$

Table 4

Relationships between Children's Choices and Independent Assessments of Peers' Attributes

	Grade		
	2	4	6
"Likes" Question with Teacher Ranking	.63**	.67**	.77***
"Math" Question with Math Grades	.61**	.75***	.65**
"Runs" Question with Running Speed	.54*	.63**	.69**
"Angry" Question with Teacher Ranking	.56*	.52*	.54*
"Shy" Question with Teacher Ranking	-.21	.36	.68**

*p < .05
**p < .01
***p < .001