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ABSTRACT

The relationship between egocentrism and five components of social competence (decentering ability, social participation, helping behavior, conflict resolution, and egocentric speech) in young children was examined in this study. Measures of egocentrism, intelligence and social competence were obtained for each of 100 three-year-old children paired in 50 dyads. Egocentrism was assessed by seven frequently used tests of egocentrism and intelligence was assessed using McCarthy Scales of Children's Ability. Social competence was assessed by observing each child playing with a friend (generally of the same sex) for 30 minutes in a room that was furnished as a miniature nursery school. Each child's play behaviors were videotaped from behind a one-way mirror and then were categorized by both time unit and discrete social acts. Among the results it was found that in comparison to less egocentric subjects egocentric children were no less social in their play and no less able to integrate their own play ideas with those of their peers. Although level of egocentrism showed a greater relationship to social competence than did level of intelligence, the only significant relationship was with helping behaviors; less egocentric children helped each other more, gave each other more things, and tended to use less egocentric speech. Girl dyads who did better on the egocentrism tests tended to use less egocentric speech and to have fewer conflicts than boys. It was concluded that the results raise questions about the construct validity of egocentrism.  
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Egocentrism and Social Competence with Peers \*

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As children mature, they become less egocentric; that is, they become more able to infer another person's point of view and more able to simultaneously consider their own points of view and someone else's. This ability is presumably important for the development of competent social behavior. Despite its theoretical importance, this presumption has been tested relatively little. Egocentrism has been found to relate to popularity with peers in a number of studies (Deutsch, 1974; Jennings, 1975; Rubin & Maioni, 1975); and egocentrism has been found to relate to some specific prosocial behaviors such as helping behavior (e.g., Zahn-Waxler et al., 1977). Apparently, no studies, however, have related egocentrism to social competence in naturally occurring interactions. In the present study, we examined the frequently accepted relationship between egocentrism and social competence in three year-old children.

We studied several aspects of social competence. The first was decentering ability. This measure was a direct application of Piaget's construct of egocentrism to social interaction. Egocentrism refers to the child's inability to decenter, that is, to flexibly deploy attention so that more than one aspect of a situation can be dealt with at a time. In the social realm, high decentering ability implies that the child can coordinate his/her own point of view with that of another, that is, (s)he is able to flexibly integrate his/her own needs and ideas with those of someone else.

We included four other aspects of social competence: social participation, helping behaviors, conflict resolution and egocentric speech.

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The subjects were 50 dyads of 3 year-old children; the children within each dyad were friends. In all, 100 children participated in the study; they came from predominantly white, middle-class suburban families.

Measures of egocentrism, intelligence and social competence were obtained for each child. The children were seen together only for the social competence session. Egocentrism and intelligence were assessed independently in two subsequent sessions. To assess egocentrism, each child was given seven frequently used tests of egocentrism. As an example of these tests, I will describe Flavell's cube (Flavell, 1968). For this test, the examiner and the child sit opposite one another, each holding identical picture cubes. The examiner asks the child to turn his/her cube so that both are looking at the same picture. The egocentrism score was the sum of the seven tests. Intelligence was assessed in a separate session by a different tester using the McCarthy Scales of Children's Abilities. Measures of intelligence were included to determine whether any relationship found was specific to egocentrism or part of a more general relationship between intellectual ability and social competence.

Social competence was assessed by observing each child while playing with a friend, generally of the same sex. The two children played by themselves in a room that was furnished as a miniature nursery school. A wide variety of toys was available, including dolls, trucks and a toy stove and sink. The mothers and occasional fathers watched from behind a one-way mirror and, when necessary, entered the room. The sessions lasted about 30 minutes and were videotaped from behind a one-way mirror. Three pairs of children had to be dropped from the

sample because they engaged in less than 15 minutes of codable play, i.e., play in the absence of their mothers. We were left with 50 pairs of children.

The free play tapes were categorized by both time unit and by discrete social acts. Together, these provided five measures of social competence.

There were two overall measures; these were decentering ability and social participation.

To measure decentering ability, all nonconflict acts were ordered by the amount of decentering shown. In acts low on this scale, the child focused on his or her own activity and paid no attention to the peer (for example, saying "my train goes fast" while the peer worked on a puzzle). In acts high on the scale, the child demonstrated both input of his/her own ideas and good accommodation to the peer; that is, the child successfully coordinated his own ideas with those of the peer. For example, while watching the peer push his/her train along the floor, the child asked, "Does your train go to Chicago?" All nonconflict acts were coded according to this eight point scale. The measure of decentering ability was the mean of these codes.

The social participation measure was based upon the classic categories of Parten (1932): solitary, parallel, associative and cooperative play. Parten's scheme was expanded upon by Whiteside, Busch and Horner (1976) and by ourselves. We coded 30 minutes of the children's play from video tape and a written transcript. Using a 30 second time sampling unit, the highest level of play observed was recorded for each child. The social participation score was the mean score over all time units. Copies of the coding manual for this system are available (Suwalsky, Martin, Fivel & Jennings, 1980).

Three specific aspects of social competence were also assessed. The measure of helping behavior was the number of times the child offered an object to the peer or offered help or sympathy.

The measure of conflict behavior was a weighted frequency score. Conflict promoting acts were weighted according to the amount of aggression shown, ranging from asking for the peer's toy to hitting the peer.

Finally, egocentric speech was measured by the number of times one child asked the other for clarification, for example, by asking "What?" or "Which car do you mean?" We originally tried having the observer directly record instances of egocentric speech. However, we found that the peer frequently understood a communication that the adult observer viewed as egocentric. Since the communication was directed at the peer, we decided to have the peer, rather than the observer, be the judge of egocentric speech.

Reliability was assessed by having two observers independently code 28 dyads. Reliability ranged from .98 to .70 (Pearson coefficient).

## RESULTS

These data present a statistical problem because the children were seen in dyads and because they were paired with a friend rather than randomly paired. Because of these statistical complexities, we used the conservative statistical approach of analysing the data by dyads rather than by individuals. For all variables, including egocentrism and intelligence, the mean score for the two children was used. For intelligence, mental age equivalent was used because the dyad score was simpler to interpret.

Insert Table 1 about here.

The main findings of the study are presented in this slide; these are the correlations of egocentrism, mental age, and chronological age with the social competence measures.

The primary focus of the study was on the relationship between egocentrism and social competence. These results are presented in the first column; note that higher scores on the egocentrism tests indicate more mature functioning and,

hence, less egocentrism. As can be seen, the dyad egocentrism score did not relate to either of the overall measures of social competence; that is, egocentric children were no less social in their play and no less able to integrate their own play ideas with those of their peer. Although level of egocentrism showed more relationship to the component measures of social competence, the only significant relationship was with helping behaviors; less egocentric pairs of children helped each other more and gave each other more things ( $r = .31, p < .05$ ). Less egocentric pairs of children also tended to use less egocentric speech ( $r = -.27, p < .10$ ) and tended to have fewer conflicts ( $r = -.24, p < .10$ ). Taken together, these findings indicate only a limited relationship between egocentrism and social competence.

We next examined our data to determine whether they supported the conceptualization of egocentrism as a uniquely social aspect of intelligence. We reasoned that egocentrism should show stronger relationships with social competence than should general intelligence. Column one in this table gives the correlations for egocentrism and column two shows those for general intelligence (expressed as mental age). A comparison of column one and two reveals a very similar pattern of correlations. In both columns, there is only one significant correlation.

For general intelligence, dyads with a higher average mental age engaged in less conflict ( $r = -.35, p < .05$ ). Clearly, there is no evidence to support the notion of egocentrism as a separate intellectual ability relating specifically to social skills. This fact is underscored by a very strong relationship between the dyad scores on egocentrism and general intelligence ( $r = .79, p < .05$ ).

For comparison, relations between chronological age and social competence are presented in the last column. These relationships tend to be weaker than those found for egocentrism and for general intelligence. In part, this reflects the quite limited age range of the sample--only six months.

When these relationships were examined separately for girls and boys, fairly marked differences in the pattern of correlations were found. These are

Insert Table 2 about here.

presented on the next slide. For the girls, correlations with egocentrism are in the expected directions and are generally higher than the correlations presented previously for all dyads. Because of the lower number of subjects, however, none of these correlations is significant; however, girl dyads who do better on the egocentrism tests tend to use less egocentric speech ( $r = -.38$ ,  $p < .10$ ) and they tend to have fewer conflicts ( $r = -.39$ ,  $p < .10$ ).

The pattern of correlations for the boys stands in marked contrast. The correlations with the two overall measures of social competence are in the wrong direction ( $r = -.24$ , N.S. and  $r = -.12$ , N.S.). For the component measures, the correlations are in the expected direction but quite low.

It is difficult to account for these differences in patterns of correlations between boys and girls and it must be pointed out that none of these differences in correlations are large enough to be significant. One possible explanation lies in the greater apparent maturity of girls; the girls in our sample scored higher on most variables. Maturity may be accompanied by greater integration of functioning in different areas. An alternative explanation for the difference in pattern of correlations between the boys and girls is that the free play of the boys was more influenced by their curiosity and interest in objects. This competing motivation may have been less important for girls and, thus, we may have a more accurate index of social competence for girls.

In conclusion, these results suggest that egocentrism may predict components of social competence, particularly helping behavior. Egocentrism, however, does not predict general social competence. The relationship between egocentrism and

and helping behaviors supports the findings of Zahn-Waxler, Radke-Yarrow, and Brady-Smith (1977) while the absence of general relationships is consistent with recent questioning of the construct validity of egocentrism (Ford, 1979).

Our data raise further questions about the construct validity of egocentrism because they indicate that egocentrism, as currently measured, is almost indistinguishable from general intelligence.



Table 1

Correlations of Egocentrism, Mental Age and Chronological Age  
 With All Social Competence Measures--All Dyads (N = 50)

<u>Social Competence Measures</u>	<u>Egocentrism<sup>b</sup></u>	<u>Mental Age</u>	<u>Chronological Age</u>
<u>Overall Measures</u>			
Decentering ability	.08	.17	.12
Social participation	.23	.21	.29*
<u>Component Measures</u>			
Helping Behaviors	.31*	.21	.22
Egocentric Speech	-.27 <sup>a</sup>	-.27 <sup>a</sup>	-.02
Conflict Behaviors	-.24 <sup>a</sup>	-.35*	-.04

\*  $p < .05$

a  $p < .10$

b Higher scores indicate less egocentric functioning

Table 2

Correlations of Egocentrism, Mental Age and Chronological Age  
and With All Social Competence Measures:

## Boy Dyads (N = 22)

<u>Social Competence Measures</u>	<u>Egocentrism<sup>b</sup></u>	<u>Mental Age</u>	<u>Chronological Age</u>
<u>Overall Measures</u>			
Decentering ability	-.24	-.09	-.18
Social participation	-.12	-.15	.05
<u>Component Measures</u>			
Helping behaviors	.19	-.17	-.03
Egocentric speech	-.12	-.37 <sup>a</sup>	.22
Conflict behaviors	-.09	-.33	.05

## Girl Dyads (N = 23)

<u>Social Competence Measures</u>	<u>Egocentrism<sup>b</sup></u>	<u>Mental Age</u>	<u>Chronological Age</u>
<u>Overall Measures</u>			
Decentering ability	.21	.31	.36 <sup>a</sup>
Social participation	.34	.36 <sup>a</sup>	.33
<u>Component Measures</u>			
Helping behaviors	.24	.32	.28
Egocentric speech	-.38 <sup>a</sup>	-.22	-.20
Conflict behaviors	-.39 <sup>a</sup>	-.42*	-.06

\*p &lt; .05

a p &lt; .10

b Higher scores indicate less egocentric functioning

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