Measurable Changes In Empathy With Age

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One of the important unanswered questions concerning the so-called ability to empathize with others, or take their role, is the developmental one. There are at least four possible ways that empathy and age may be related.

1. The relationship may be direct. As the child proceeds in his socialization he increases the number and range of his contacts with others. Theoretically, he is incorporating more and more roles. These incorporated self-other patterns allow him to adjust his behavior to others by means of taking their roles incipiently and so modify his behavior to get a desired response from the other. This view suggests that empathic ability increases as a function of age.

2. A second possibility is that the relationship may be inverse; that the ability to take the role of the other successfully decreases with age. Children do seem to play a variety of roles quite overtly: "I'm Daddy" or "I'm the cat." This type of imaginative play diminishes and finally disappears as the child grows older. Perhaps as the "self" role becomes more clearly differentiated, the child loses the ability to change perspective easily and becomes, as Kouzin [3] has suggested, increasingly more rigid with age. It may be debated whether this type of role play should be termed "empathic," particularly as empathy implies an accurate experiencing of the phenomenal field of the other to the extent of permitting correct prediction of his behavior.

3. It is also possible that empathy and age are not so simply related but, as is true of so many other psychological processes, follow some sort of growth curve of development. In this case empathy would rise rapidly early in the developmental history, maintain a high level once it had reached maturity, and finally start to decline with the onset of old age and the egocentricity which so frequently accompanies it.

4. Perhaps, fourthly, there is no consistent relation of the two at all, empathy being more importantly related to other variables than to age.

To explore the relation between empathy and age, a small study was designed to measure and compare the empathic ability of two groups of children who differed in age.

Procedure and Subjects
The samples for this study consisted of two groups of children drawn from the same rural public school. The backgrounds of the children were relatively homogeneous. Twenty-four children, 17 boys and 7 girls, all of whom were second graders, were compared to 16 sixth-grade children of whom 10 were boys and 6 were girls. The mean age of the second-grade sample was 7.2 and of the sixth graders 11.3 years.

Test 1—The Projective Test
The first problem was to design techniques for measuring the empathic ability of these children, because the previously reported devices [1, 2] were much too complicated for use with the younger subjects. Since empathy was defined as the imaginative and accurate transposing of oneself into the thinking, feeling, and acting of another [1, p. 127], it seemed to the investigators that a projective
test modeled on the Murray and Morgan Thematic Apperception Test [4] might be one fruitful way of tapping the ability. In a pretest it was found that the TAT itself was too unstructured for the younger children. A modified TAT was therefore devised. Nine pictures showing children with and without adults in a variety of situations were cut from magazines and mounted on cardboard of a standard size. These pictures ranged, as do the TAT cards themselves, from vague drawings to photographs.

The pictures were shown to each child one at a time. In each case the child was given a simple standard story designed to familiarize him with the stimulus material. The subject was then asked a standard series of questions to elicit from him the thoughts and feelings of the characters in the story. It was hypothesized that children would vary in their ability to see things from the viewpoint of others, and that a child with high empathic ability would have a store of this kind of experience, as a result of previous actual role-taking experiences. Conversely, a child with low empathy would be less able to take the role of others in the fictitious social situations, as he would not have a backlog of thoughts and feelings of others incorporated from past face-to-face experiences.

After the experimenter had read the story for a particular picture, the child was asked to "tell about the people," "what do you suppose they are thinking and feeling?" He was allowed to answer freely. If no thoughts and feelings were included in his remarks, he was then asked a graded series of questions about each character in turn. A sample story and set of questions follows.

The picture shows a dining room scene. The mother is seated at one end of the table. She is looking very cross and pointing to a boy who is about nine years old. He is standing as if he has just risen from his place and is looking at his very dirty hands. The father sitting at the opposite end of the table is surreptitiously looking at his hands under the table.

**Story:** Billy has been playing in the sand lots all day. He was having such fun that he didn't come home for supper until his mother had called him five times. Finally he came running in and sat down at the table. As he picked up his fork to eat his mother saw his dirty hands and sent him to wash them. His father is now looking at his own hands which aren't very clean either.

**Question I-1.** Tell me about the people in this picture.
**I-2.** What do you suppose they are thinking and feeling?
**I-3.** Try to describe them as they seem to you.

If the thoughts and feelings of all the characters were mentioned in response to these general questions no further questions were asked. If not, the following questions were posed until that point was reached.

**II-1.** Tell me about Billy.
**II-2.** What is he thinking now?
**II-3.** How is he feeling?
**III-1.** Tell me about the mother.
**III-2.** What is she thinking now?
**III-3.** How is she feeling?
**IV-1.** Tell me about the father.
**IV-2.** What is he thinking now?
**IV-3.** How is he feeling?

A score was given for each character according to the amount of prodding needed to bring out a statement as to their thoughts and feelings in the described situation. Five points were given for each character with whom some empathy was shown in response to I, the general questions; 4 points were assigned if a statement about the thoughts and feelings of a character was forthcoming in response to II-1 (the first question about a specific character); 3 points if empathy was shown in response to II-2; 2 points if it was displayed in response to II-3; and 1 point was given for no empathy with the character. Since each child was told stories concerning a total of twenty-four people, the minimum score was 24. The maximum score was not as certainly fixed, as the child might introduce more characters into the stories than those mentioned in the standard stories. The scores were not derived by the person who had recorded the children's replies.

**Results of projective test.** The mean score of the second grade group was 51.3, and the range from 24 to 95. The mean of the sixth-grade group was 94.5, and the range from 43 to 141. The difference between these means is significant beyond the 1 per cent level using t.

Do the scores mean that empathic ability increases significantly over this age period, or can the difference be explained on other grounds? It seemed possible that the increase was due to the development of verbal facility, but a careful analysis of the individual records...
established that this was not the case. Some records of second graders actually contained a greater amount of verbalization than those of the sixth graders, but these records were more concerned with a description of external details than with the internal thoughts and feelings. A definite qualitative difference is apparent in the records of the two groups; the sixth graders have obviously become more aware of, or at least more articulate about, the inner world of thoughts and feelings of others.

Although the results of this testing were provocative, they could hardly stand by themselves as a valid measure of empathy. Therefore another attempt was made to test this ability. As the projective test had made use of fictitious situations, it might be argued that the test was measuring creative imagination or some such other ability. For this reason the next test was designed to tap the children's ability to understand their actual face-to-face relations with their peers.

Test 2—The Social Insight Measure

First, a sociometric technique was administered to both groups, which included three choice situations: whom would you like to sit beside, invite home to a party, and take with you when transferred to another room. Four answers were required to each question, three "like" choices and one "dislike." Weighted scores of +5, +3, +1, and −5 were given in that order. Each child, therefore, received a total score which was the sum of the total plus and minus mentions of him by the others. The sociometric test was followed by a reverse sociometric or social insight test. Each child was required to judge the extent to which he was liked or disliked by each other member of the class. This task was thought to require the ability to take the role of the others, and to see himself from the viewpoint of each of them. The names of all the children in the class were listed with six choices following each:

1. John Jones (1) likes me most, (2) likes me very much, (3) likes me some, (4) likes me only a little, (5) dislikes me, (6) dislikes me very much.

An empathy score was based on the degree of correspondence of the ratings of how others felt, to those received on the sociometric rating made by the others. The score was obtained as follows: The range of possible sociometric scores that could be given by each child to any other child was from +15 to −15 (if he received all three +5 or all three −5 choices). This range was divided into six groups, each of which was arbitrarily equated to one phrase of the social insight test.

+ 15 to + 11 = likes me most
+ 10 to + 7 = likes me very much
+ 6 to + 3 = likes me some
+ 2 to 0 = likes me a little
− 5 to − 9 = dislikes me
− 10 to − 15 = dislikes me very much

Perfect correspondence of predicted liking and sociometric score was given a social insight score of 0. One point was given for each place that the predicted liking was removed from the sociometric rating. For example, if a child responded that "John Jones likes me very much," and John actually gave that child only a score of −5 on the sociometric test, his empathy score with John would be 3. It is obvious then that the lower the score the higher the correspondence, or the child's ability to understand how others feel about him.

Again, the results show a clear advantage for the sixth-grade group. The scores were converted to means to equate for the number of others involved in the two groups. The range of the second-grade scores was from .66 to 2.87, and the mean was 1.86. The range of the sixth grade was from .68 to 1.56, and the mean was 1.04. The difference between these means is also significant at the 1 per cent level.

How are these two measures related? Even though there is a clear increase with age in the ability to deal successfully with both the projective and the social insight tests, are they measuring the same ability? The rank-order correlation between the two sets of scores is a low and positive +.46. While there is some overlap in the processes required in the two tasks, in that they both require the subject to penetrate the role of another individual, real or fictional, there are also differences which would lower the correlation. In the case of the projective test there is no criterion against which the statements are evaluated. Any statement of thoughts and feelings, appro-
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appropriate or inappropriate, is accepted as evidence of empathy, the score being based entirely on how readily these are elicited by the stimulus materials and the tester's prompting. In the other test, the accuracy with which the feeling of the other toward the subject is judged is taken into account in the scoring. In the first case, too, we are dealing with a relatively neutral situation, that is, with pictures of people not known by the subject. The second situation is far from neutral, and may be quite threatening to the child, in that he is asked to admit that some of his classmates dislike him, perhaps in some cases that the majority dislike him very much. Since it is easier to admit that one is liked than disliked, we would expect the social acceptability or sociometric scores to be more highly correlated with the social insight scores than with the projective test scores. This does in fact occur. The rank-order correlations are shown in Table 1.

Table 1
Correlations of Sociometric and Projective Scores and Sociometric and Social Insight Scores

<table>
<thead>
<tr>
<th></th>
<th>Sociometric-</th>
<th>Sociometric-</th>
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<tbody>
<tr>
<td></td>
<td>Projective</td>
<td>Social Insight</td>
</tr>
<tr>
<td>Grade 2</td>
<td>-.32</td>
<td>+.26</td>
</tr>
<tr>
<td>Grade 6</td>
<td>-.03</td>
<td>+.50</td>
</tr>
</tbody>
</table>

Test 3—Friendship Qualities

The fact that the correlation of the sociometric scores and the social insight scores is not higher than +.26 for the second graders, raises another question: what are the qualities of those who are best liked at these two age levels? To get some insight into the bases of the friendship choices in the two grades another and final test was administered, consisting of twenty-five short descriptive phrases. The following instructions were given.

Think of the children you like the best. Now from the list below choose the five things that tell about them the best. Draw a line under the words. Make sure you draw five lines.

The phrases used were:

1. Cheerful
2. Good-looking
3. A good fighter
4. Feels sorry when others are in trouble
5. Is well dressed
6. Has lots of spending money
7. Is friendly
8. Shows off
9. Is tidy and clean
10. Has a nice home
11. Is understanding
12. Is always playing tricks
13. Quiet and shy
14. Talks a lot
15. Shares things
16. Thinks a lot of himself
17. Helpful to the teacher
18. Good at sports
19. Bossy
20. Has nice manners
21. Gets angry
22. Gets good marks
23. Helpful
24. Tough
25. Doesn't get mad easily

Table 2
Friendship Qualities Chosen by the Second Graders

<table>
<thead>
<tr>
<th></th>
<th>Rank in Grade 2</th>
<th>Item</th>
<th>Rank in Grade 6</th>
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<tbody>
<tr>
<td>Grade 2</td>
<td></td>
<td></td>
<td>Grade 6</td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td>Has a nice home</td>
<td>12</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>Is good-looking</td>
<td>12</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>Has lots of spending money</td>
<td>9</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td>Cheerful</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td>Feels sorry when others are</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in trouble</td>
<td></td>
</tr>
</tbody>
</table>

Table 3
Friendship Qualities Chosen by the Sixth Graders

<table>
<thead>
<tr>
<th></th>
<th>Rank in Grade 6</th>
<th>Item</th>
<th>Rank in Grade 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 6</td>
<td></td>
<td></td>
<td>Grade 2</td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td>Friendly</td>
<td>9</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>Cheerful</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>Is tidy and clean</td>
<td>13</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td>Has nice manners</td>
<td>10</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td>Shares things</td>
<td>10</td>
</tr>
</tbody>
</table>

Tables 2 and 3 give the items that were chosen most often by the second and sixth graders and the comparative standing of these items in the other group. It seems clear that there are sharp differences between the two age groups in the bases for their friendships. The younger children put more stress on externals such as appearance and the material matters of nice home and money, while the older children have shifted more to an emphasis on personality characteristics. The latter group of items seems to represent an increase in socialization or at least the internalization of middle-class norms as they seem to describe the ideal-typical "nice little friend" from a parent's point of view. If the older children are really choosing their friends more on the basis of their having warm personalities, it would make more understandable the difference in the correlations between the empathy measures and popularity, as measured by the sociometric test. Since the second graders are
not choosing their friends on the basis of their “understandingness” we can hardly expect those who are most popular to be high also in empathy.

The correlations do increase, however, so that the children who are most popular in the sixth grade tend to be those with higher social insight. Since this finding does not also hold for the projective test, it should be interpreted rather cautiously. As children increase in age they are perhaps more aware of the thoughts and feelings of others, and better able to judge them accurately. Where the feelings of the others towards the subject are complimentary or easily acceptable to the self-image, they are more freely accepted and admitted. They are then not subject to the same pressures toward distortion for ego-protection as the damaging references would be. Individuals who are well liked may thus appear to be more empathic on a test of social insight. Those who are disliked may actually say they are liked, not through a lack of understanding of the feelings of others, but because of the difficulty in accepting the concept of self that such an admission would force. It is a different and harder task for the outsider to admit he is an outsider than for the insider to state his position accurately. The correlation of the sociometric test and the projective test scores shows that when the role-taking task is taken out of the realm of self-reference, there is no necessary correlation between social acceptability and empathic ability. Both the “outsider” and the “star” of a social group may be either high or low in empathy as measured by the projective test. Not only is there the highly integrative, highly empathic group leader, but also the egocentric, domineering, unempathic one who still may be courted by others for his power. Likewise, not all fringe members are insensitive. Some may be very understanding of others but lack the social skills to capitalize their ability. One’s place in a group seems to depend then, not so much on one’s role-taking ability per se but also on social techniques which vary with the structure and function of the particular group.

Summary

In summary, two empathy measures, a projective test and a social insight test, both of which required the subject to assume the role perspective of another, showed a marked increase with age from the seven-year to the eleven-year level. There was a low positive correlation between the two measures. Wide individual differences in ability were apparent within both age groups. The relation of social insight to popularity as measured by sociometry, was positive and increased markedly from the younger to the older age group. This finding might be interpreted as showing a high relation between empathy and popularity, were it not for the observation that the correlations of the sociometric test and the projective test remained near zero. Taking into account the nature of the social insight task, a more valid generalization seems to be that while, on the whole, children become more aware and better able to assess the feelings of others accurately, they also become more aware of which feelings are “safe” to recognize and admit, and which need defenses. Children in the center of the sociometric chart are more free to be empathic than those on the periphery.

Concerning the problem of the relation between age and empathic ability, perhaps the only contribution of this paper is to demonstrate some of the difficulties involved. Most obvious are the problems of the measurement of empathy in young children. Although the results of both tests suggest a direct relationship between age and empathy from the years of seven to eleven, perhaps they only reflect the difficulty that younger children have in verbal communication. The authors’ best estimate is that, by and large, the empathic ability of children increases with age.

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References