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ABSTRACT

This research study was designed to examine the attitudes of preschool children toward the disabled, evaluate the children's awareness and understanding of physical impairment, and examine the possibility of modifying preschool children's attitudes towards disabled children. Subjects were 102 children, 3-5 years of age, enrolled in preschools or day care centers. Children were asked to select their favorite toy from a set of six photographs. They were then shown one of four photographs of another, same-sex child (boy or girl in regular chair or boy or girl in wheelchair). Children were told that toy preferences of the pictured child were either similar of dissimilar to their own, or they were told nothing concerning toy preferences. While viewing the photographs, subjects were asked questions designed to determine their (1) affinity for the photographed child; (2) assessment of the child's ability; and (3) perception of the attitudes of their parents, teachers, or friends towards the subject's playing with the photographed child. Subjects shown disabled children were also questioned to determine their comprehension of disability. Results indicated that a shift from lack of understanding of disability to understanding occurs between 3 and 4 years of age; but that understanding of a disability does not produce the negative attitudes towards the disabled that are found in older children. (ED)

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AN EXAMINATION OF PRE-SCHOOL CHILDREN'S
ATTITUDES TOWARD THE PHYSICALLY HANDICAPPED

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Paper presented at the biennial meeting
of the Society for Research for
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AN EXAMINATION OF PRE-SCHOOL CHILDREN'S
ATTITUDES TOWARD THE PHYSICALLY HANDICAPPED.

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The existence of negative attitudes toward the physically handicapped has been well documented (Asher, 1974; McDaniel, 1970; Wright, 1960). Research suggests that negative attitudes toward the disabled develop at a young age. Richardson (1970) found that children as young as first grade consistently favor children without handicaps to children with handicaps. The present research examined the attitudes toward disability of an even younger age group, pre-school children aged three to five.

Previous research on attitudes of school-age children toward the disabled used a rank order technique (Richardson, 1970; Goodman, Dornbusch, Richardson, and Hastorf, 1963; Richardson, Hastorf, Goodman, and Dornbusch, 1961). Children ordered a series of six drawings of children from most preferred to least preferred. In five of the drawings, the children had various physical handicaps and in one the child was without a handicap. This procedure has worked well with children over six, however, Richardson (1970) has questioned its usefulness with five to six year olds since a number of children at this age level do not fully understand the task.

Accordingly, a somewhat different assessment procedure was developed for this research. Children were shown a picture of either a same-sex, able-bodied child sitting in a regular chair (able-bodied condition) or the same child sitting in a wheelchair (disabled condition). They were then asked a series of questions to assess their attitudes toward the pictured child. Each question was responded to with either yes or no.

The present research also attempted to evaluate the child's awareness of and understanding of physical impairment. The question of children's understanding of disability has not been a concern in earlier studies. It has always been assumed that school age and older populations had an awareness of the meaning of disability. However, in this research with pre-schoolers, an evaluation was made of the child's comprehension of disability. Children in the disabled condition were asked several questions aimed at determining their knowledge of the wheelchair's name and function.

Finally, the research examined whether pre-school children's attitudes toward the disabled could be modified by varying the perceived similarity of the disabled child. Byrne (1961) has theorized that attraction toward an individual increases as perceived similarity to the individual increases. Studies by Byrne and others have repeatedly found support for this hypothesis with adults (Byrne, 1969). In a study by Byrne and Griffitt (1966) the similarity-attraction model held for children in fourth to eighth grades as well. Asher (1974) applied the similarity-attraction model to adult attitudes toward the disabled. In the Asher study, attraction toward a disabled person was increased by increasing the perceived attitudinal similarity of the disabled person.

In the current research the degree to which the pictured child had similar interests to the subject was varied. Children's interest in various toys was assessed. Children were then told that the pictured child either liked the toys he/she liked (similar interests condition), disliked the toys he/she liked (dissimilar interests condition), or said nothing about the pictured child's interest in toys (no interest information condition). An 2x3 (Physical Condition x Interest Similarity) factorial design was thus used, with physical

condition having two levels, able-bodied and disabled, and interest similarity having three levels, similar interests, dissimilar interests, and no interest information.

Subjects

Participants were 53 boys and 49 girls, ranging in age from three to five. There were 26 three year olds, 53 four year olds, and 23 five year olds. The children came from two day care centers and one pre-school center in the Champaign-Urbana, Illinois area. The socioeconomic level of the children was generally middle and upper-middle class. Eleven of the 102 children were non-white.

Stimulus Material

Four photographs were taken: (a) a four year old able-bodied girl sitting in a regular chair, (b) the same girl in a wheelchair, (c) a four year old able-bodied boy in a regular chair, and (d) the same boy in a wheelchair. In each of the four pictures the child had a slight smile and was facing forward.

To assess whether the faces of the boy and girl were equally attractive, 18 adult judges, 10 women and 8 men, rated their attractiveness. Each judge was randomly assigned one boy and one girl to rate. Frames were placed over the photographs so only the child's head was visible. In this way, the judges rated only the child's facial attractiveness and were not aware that some of the children were in wheelchairs and that some were not. Ratings were done on a 1 to 5 scale from not attractive to very attractive.

Multiple t-tests revealed that the mean attractiveness scores received by the children in the four photographs were not significantly different from each other. Two pictures received exactly the same rating of 4.00, the third obtained a rating of 4.11 and the fourth a rating of 4.22. These ratings indicate that

adults perceived all the children as between somewhat attractive and very attractive.

Procedure

Before testing, the experimenter (a female graduate assistant) spent approximately four hours in each center getting to know the children and having the children become familiar with her. After stratifying on age and sex, children were randomly assigned to one of the six experimental conditions. Children were then individually tested.

At the start of testing, children were given several sample yes/no questions to be sure they understood this type of question and could answer both yes and no. Next, the experimenter showed each child a series of six photographs including a truck, doll, tools, teddy bear, cards, and a cat. For each item the child was asked whether he/she would like to play with it (e.g., Do you like to play with trucks?)

Children in the able-bodied condition were then shown a child of their own sex sitting in a regular chair. Those in the disability condition were shown the child of their own sex sitting in a wheelchair. In the similar interests condition children were told that the pictured child liked the things they liked with the first three items they liked being named (e.g., He/she likes the things you like. He/she likes to play with trucks, tools, and cards). In the dissimilar interests condition children were told that the person in the picture didn't like the things that they enjoyed with the first three items they liked being named (e.g., He/she does not like to play with trucks, tools or cards). Children in the no information condition were simply shown the pictured child and told nothing about the child's interests.

While looking at the picture the children were asked to evaluate the photographed child on a liking measure, ability measure, sharing measure, and

influence measure. The liking measure consisted of the following questions:

- (a) Would you like to play with this child at the center? (b) Would you like to play with this child at home? and (c) Would you like to play with this child in the park? For the sharing measure, participants were shown a picture of:
- (a) blocks, (b) books and (c) puzzles. For each picture they were asked whether they would be willing to share each toy with the pictured child. On the ability measures participants were asked if they thought the pictured child was:
- (a) able to color, (b) able to sing, and (c) able to run. For the influence measure subjects were asked whether: (a) their mother would want them to play with the pictured child, (b) their teacher would want them to play with the pictured child, and (c) if their friends would want them to play with the pictured child.

Each of the four measures was thus composed of three questions, answered with either a yes or a no. Yes responses were scored as one and no responses as zeroes. A total score on the measure was obtained by adding scores for the three questions.

Following these four measures, children in the disability conditions were asked several additional questions aimed at learning whether they understood the meaning of disability. The questions were: (a) Is there anything different about this boy/girl? (b) What is this? (Experimenter pointed to the wheelchair) (c) What is it used for? (d) Do you know anyone who uses a wheelchair? (e) Have you ever seen anyone use a wheelchair? Subjects were categorized as being aware of the meaning of disability if they specified that the chair was a wheelchair, or some related name, and that it was used when a person's legs were hurt, broken, or in some other way not functioning.

Results

The first issue to be examined was whether understanding of disability increased with age. Results of a chi square analysis (Table 1) indicated that recognition of disability increased dramatically with age ($X^2 = 12.00, p < .001$). Only 16 percent of the three year olds were aware that the child was disabled, while 71 percent of the four year olds and 75 percent of the five year olds understood that the child was handicapped.

TABLE 1

	Not Aware of Disability	Aware of Disability	Total
3 year olds	10	2	12
4 year olds	8	20	28
5 year olds	3	9	12
Totals	21	31	52

Chi Square = 11.997

Investigated next was whether there were differences in ratings of the able-bodied child and disabled child and whether these ratings varied as a function of perceived similarity. A 2x3 (Physical Condition x Interest Similarity) analysis of variance was performed. The two levels of physical condition were able-bodied and disabled. The three levels of interest similarity were similar interests, dissimilar interests and no interest information. No significant main effects or interaction effects were found on any of the four measures. Ratings of the able-bodied child and disabled child in terms of liking, sharing, ability and influence did not vary significantly with perceived similarity.

An additional analysis was done to test for possible awareness of disability effects. Children rating the disabled child were divided into two

groups, those aware of the meaning of disability and those unaware of the meaning of disability. A 3x3 analysis of variance was then performed. In this analysis physical condition had three levels: able-bodied condition; disabled condition, not aware of disability; and disabled condition, aware of disability. The three levels of similarity were similar interests, dissimilar interests and no interest information. Results indicated no significant main effects or interaction effects on the liking measure, sharing measure or influence measure. On the ability measure, however, there was a significant effect of physical condition ($f = 6.96, p < .01$). Using a chi square to examine scores on the individual items of the ability measure, it was found that the "to run" item was largely responsible for the significant physical condition effect. Those in the disabled condition, aware of disability, rated the handicapped child as unable to run. While children in the disabled condition, not aware of disability, scored the disabled child as being able to run.

Discussion

The data clearly indicate that the shift from lack of understanding of disability to understanding occurred between three and four years of age. When shown the picture of the disabled child and asked if there was anything different, the three year olds typically gave answers such as "She has blond hair," "His shirt is blue," "She is wearing sandals," or "Nothing is different." Even when the wheelchair was pointed to and named most of the three year olds could give no information about its function. The children at this age do not appear to be attending to the disability related aspects of the picture, and when these were pointed out to them they seemed to have no real meaning for them. In contrast, the four year olds often answered that what was different was that the child was in a wheelchair. By this age they have learned something

about disability and were attending to it as a distinct and important element.

Interestingly, knowledge about disability had no significant effect on liking, willingness to share, or the child's perception of other's desire for him/her to play with the handicapped child. Joining these results with Richardson's (1970) finding that first grade children have negative attitudes toward the disabled, it appears that an awareness of disability occurs by age five but negative attitudes do not develop until somewhat later. Before this interpretation is accepted, however, a methodological issue should be examined. The present research compared ratings given an able-bodied child with those given a disabled child. Children were not asked to choose who they liked better. With a forced choice, or rank order procedure, prejudices against the disabled may become evident.

Finally, the results indicated that degree of perceived similarity had no effect on ratings of the able-bodied child or the disabled child. This is at odds with evidence that perceived similarity influences fourth grade children's interpersonal attraction (Byrne and Griffitt, 1966). A couple of explanations can be offered. It is possible that the manipulation of perceived similarity lacked strength. Only three interest items were used while previous research on the similarity attraction model have used a larger number of items. Alternatively, preschool children may just not be susceptible to similarity as a determinant of interpersonal attraction. Future research is needed to evaluate these alternatives.

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