A study was conducted to determine the frequency of three types of prosocial interactions—empathy, helping, and altruism—which nonhandicapped preschool children could exhibit toward their handicapped peers. Subjects were 32 nonhandicapped 4- to 5-year-olds and 13 developmentally disabled 3- to 5-year-olds attending a mainstreamed preschool classroom. Each of the 32 nonhandicapped subjects was observed in the classroom for six separate 10-minute intervals over a 6-week period, for a total of 32 hours of observation. During this period, a trained observer recorded each time the nonhandicapped child exhibited one of the three types of prosocial behavior, noting whether the behavior was directed toward a female or male peer and whether or not the peer was handicapped. In addition, nonhandicapped children were interviewed concerning their motivation for prosocial behavior. Results obtained from the observation data indicated that handicapped children were significantly underrepresented as recipients of prosocial behaviors. Handicapped children elicited only altruistic actions and received neither empathic nor helping support from their peers. Results from interviews indicated that the nonhandicapped children were at the social responsibility norm level of motivation for their prosocial behaviors. None of the children mentioned a person's handicap as a basis for their altruistic acts. (MP)
Prosocial Behaviors In A Mainstreamed Preschool

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Abstract

The purpose of this study was to investigate prosocial interactions as a measure of friendship toward handicapped children in a mainstreamed preschool. Each of the 32 nonhandicapped preschoolers was observed in the classroom for empathic, helping, and altruistic behaviors directed toward both their handicapped (N=13) and nonhandicapped peers. The results indicated that handicapped children were significantly underrepresented as recipients of prosocial behaviors. The handicapped children elicited only altruistic actions and received neither empathic nor helping support from their peers. Factors influencing prosocial behavior in preschool settings are discussed.
Prosocial Behaviors in a Mainstreamed Preschool

There has been increased interest in the social behaviors within the mainstreamed classroom. Most of the research on social interaction in integrated settings has focused on the elementary school and has indicated that school children do not readily accept handicapped peers (Semmel, Gottlieb, & Robinson, 1979). Recently, researchers have begun to study the social behaviors of preschoolers in mainstreamed nursery school programs. Some researchers have reported data similar to the findings at the elementary school level (Porter, Ramsey, Tremblay, Icaccobo, & Crawley, 1978; Ray, 1979), while other researchers have reported much more acceptance of preschool handicapped children by their nonhandicapped peers (Peterson & Haralick, 1977; Guralnick, 1980). All of these studies focused on general social interactions and some included as many as 15 to 20 different types of behaviors (e.g., smiling, proximity, gestural communication).

A more specific measure of children's social interactions involves prosocial behaviors, one of the least researched areas of social behavior in integrated preschool programs. Prosocial behaviors are socially constructive behaviors intended to aid or benefit another person or group of people (Mussen & Eisenberg-Berg, 1977). The term "prosocial behavior" is a general, categorical term which
includes a number of different behaviors such as empathy, helping, and altruism.

Although Hoffman (1975) has theorized that empathy mediates a variety of prosocial behaviors and therefore should be related to other types of prosocial activities, Payne (1980) found that the individual types of prosocial behaviors were not highly correlated. Most of the investigations reporting a significant correlation between the types of prosocial behaviors have used a behavior rating methodology (Bryan, 1975) rather than an event sampling (naturalistic observation) methodology. Therefore, it is important to investigate the actual frequencies of several different types of prosocial behaviors in preschool settings.

Prosocial interactions indicate a certain amount of positive feelings between the actors and may indicate a certain level of acceptance by the initiator for the recipient. Hayes, Gershmarn, and Bolen (1980), in a study comparing preschool children's unilateral versus reciprocal friendships, found that in reciprocal friendships children often mentioned mutual sharing (altruism) as a dimension of their friendship which was not mentioned by any of the children involved in unilateral friendship dyads. Therefore, the frequency of prosocial behaviors directed toward handicapped children may be a more accurate measure
of their acceptance by nonhandicapped peers than general social interactions.

Only two studies (Ispa & Matz, 1978; Ispa, 1981) have focused on prosocial behavior in a mainstreamed preschool. Both studies were conducted in the same school over a two-year period utilizing some of the same subjects and included only one type of prosocial behavior (helping). The purpose of the present investigation was to determine the frequency of three types of prosocial interactions—empathy, helping, and altruism—which nonhandicapped preschool children could exhibit toward their handicapped peers.

**Method**

**Subjects**

The subjects were 32 nonhandicapped 4 to 5 year olds (15 males and 17 females with an average age of 4 years 6 months) and 13 developmentally disabled 3 to 5 year olds (7 males and 6 females with an average age of 4 years 5 months) enrolled in the Home Economics Preschool Laboratory at California State University, Northridge. There were 13 additional nonhandicapped 3 to 4 year olds and four nonhandicapped 2 to 3 year olds who were not part of the study. The children were from middle class families and lived in the community surrounding the university. The following numbers of children with specific handicaps were represented in the school: language delay (3), language delay with cognitive involvement (4), cerebral palsy with...
cognitive involvement (1), trisomy 21 (2), and developmental
delay without known organic involvement (3).

Procedure
Each of the nonhandicapped subjects was observed in the
classroom for six separate 10-minute intervals (one hour)
over a six-week period for a total of 32 hours of
observation time for the total group. The intervals were
randomly determined within the time the children spent
inside the classroom. The two research assistants, graduate
students in home economics and communicative disorders, were
seated inside the classroom and were randomly assigned to
observe the target children using observational forms
developed for the investigation. The research assistants
had at least one semester of observing experience at the
preschool laboratory. They were blind to the purpose of the
study. During the two weeks prior to the study, the
research assistants were trained to use the observation form
until the Spearman-Brown interjudge reliability correlation
coefficient exceeded .90.

Operational definitions of the three types of prosocial
behaviors were identified on the observation form. Empathy
included such behaviors as responding to another's distress
through empathic crying and by comforting a hurt child.
Helping included assisting a child getting up or sitting
down, picking up objects dropped by another and cleaning up
materials. Altruism included such behaviors as sharing
toys, food, space and materials and taking turns. The research assistants observed each nonhandicapped child and checked the appropriate category each time the child exhibited a prosocial behavior and also noted whether the behavior was directed toward a female peer or male peer and whether or not the peer was handicapped. Behaviors directed toward classroom teachers were also included. Scoring consisted of adding the frequencies for each of the three categories of prosocial behavior. A total prosocial score was obtained by adding the empathy, helping, and altruism scores.

In addition, the nonhandicapped children were interviewed concerning their motivation for prosocial behaviors (Dreman & Greenbaum, 1973). The interviews were conducted by a third research assistant, a graduate student in home economics. Each child was taken individually to the testing room, which is a small barren house located on the playground of the preschool. The questions were asked in the following order. "When you share your toys at home or school with a boy/girl (depending on the sex of the respondent), why do you share them?" "When you have some candy and you share your candy, why do you share it?" "When you give someone a present, why do you give it to them?" The child's responses were given one point if it indicated the "social responsibility norm" level of altruism (child shares or gives aid to conform to social demands), two
points if it indicated the "reciprocity norm" level (child shares or gives aid to return a favor), and three points if it indicated "true altruism" (child shares or gives aid to make others happy). A response was given zero points if it was deemed inappropriate for the question; examples were responses, such as, "I don't know," or "Because candy's not good for me," or "I don't give presents." Examples of responses considered at the social responsibility norm level were, "Because I have to," or "Because my mother says I have to," or "Because my brother makes me." Responses at the reciprocity level were, "When it's their birthday, I give a present, then when it's my birthday, they give me a present," or "They won't play with me if I don't," or "Because they share with me." Responses at the true altruism level included responses such as, "I do it because it makes me feel good," or "Because it makes the girl happy." The Cronbach's alpha for the interview was .68.

Results

Empathetic responses were the least frequently exhibited (M = .31, SD = .45), followed by helping behaviors (M = 3.66, SD = 1.76), and altruistic behaviors (M = 4.84, SD = 1.87). The mean number of prosocial behaviors exhibited per child during one hour of observation time was 8.81 (SD = 2.52). The data included interactions that were from nonhandicapped to nonhandicapped child, nonhandicapped
child to handicapped child, and nonhandicapped child to nonhandicapped adult.

Of the total of 282 prosocial interactions, 188 interactions were child-to-child. The remaining 94 were child-to-teacher interactions. Only five prosocial interactions were directed toward handicapped children. This constituted only 1.8 percent of the total prosocial interactions (including child-to-teacher interactions) and only 2.65 percent of the child-to-child interactions. The handicapped children constituted 16.9 percent of the total population if teachers were included and 20.9 percent of the children-only population. A chi square analysis indicated that the handicapped children were significantly underrepresented as recipients of prosocial behaviors in the total interactions (child-to-teacher interactions included), \( x^2(1) = 1819.71, p < .001 \), as well as child-to-child interactions only, \( x^2(1) = 1175.94, p < .001 \). All of the prosocial behaviors received by the handicapped children were altruistic behaviors; the handicapped children elicited no empathetic or helping behaviors from their nonhandicapped peers. There were no significant sex differences in the initiator or recipient of the prosocial behavior.

The mean level per question of the interview was .81 with a standard deviation of 1.31. The data indicated that the nonhandicapped children were at the social responsibility norm level of motivation for their prosocial
behaviors. None of the children mentioned a person's handicap as a basis for their altruistic acts.

**Discussion.**

The reliability of the interview was relatively high \( (r = .68) \) considering the construct measured, the brevity of the interview (3 questions), and the homogeneity of the group (middle-class 4-5 year olds). It should be noted that Dreman and Greenbaum (1973) did not report any reliability data on their one question interview from which the present interview was based. More attention needs to be given to the development of reliable and valid methods of assessing preschool children's explanation for their prosocial behaviors.

The results indicated a large discrepancy in the actual frequency of prosocial behaviors directed toward the handicapped children. If prosocial interactions are indicative of friendships between the handicapped and nonhandicapped children, then the handicapped children in the present investigation clearly were not fully integrated into the preschool milieu.

While three types of prosocial behaviors were included in the study, handicapped children were recipients of altruistic acts only. Handicapped children received no helping responses from their peers. These data differ from Ispa and Matz (1978) and Ispa (1981) who found that the handicapped children received more, not less, helping
interactions from their nonhandicapped peers and teachers than their nonhandicapped peers. Such inconsistent findings indicate the need for careful study of the different types of prosocial behaviors and the conditions under which they are elicited by handicapped children. Cooke, Apolloni, and Cooke (1977) indicated that simply placing children in mainstreamed programs will not usually result in cross group peer interactions. It may be necessary to train handicapped and nonhandicapped children in specific social skills such as sharing and helping (Gresham, 1981; Synder, Apolloni, & Cooke, 1977).

Eisenberg-Berg and Lennon (1980), in a study of nonhandicapped preschoolers, also found empathy was the least frequent of the prosocial behaviors studied. Thus, the data do not appear to support Hoffman's contention that empathy mediates the other prosocial behaviors. Although the frequency of empathic responses were low in the present investigation, there were more responses directed toward nonhandicapped than handicapped children. Further exploration of possible differences in the development of empathic responses toward handicapped versus nonhandicapped peers will be necessary in the future.

The results of the interview indicated that the nonhandicapped children were at the social responsibility norm level of motivation for altruism, i.e., sharing is desirable because it is rewarded. Children at this level
expect to get feedback from the recipients of their prosocial activities. It is possible that the nonhandicapped children, after observing and interacting with the handicapped child, may have begun to conceptualize the handicapped child as socially inactive and unable to reinforce them for helping and sharing responses.

Sometime after entering elementary school, children begin to operate at the reciprocity level of motivation for prosocial behavior; that is, they begin to share or give aid in order to return a favor or to have it returned in the future. If the handicapped elementary child lacks the skills necessary to deliver prosocial activities to others, then he or she is unlikely to receive any prosocial activities. Again, preschool and elementary teachers in mainstreamed classrooms need to train handicapped children in the specific skills necessary for delivering prosocial interactions to others.

Guralnick (1981) identified several factors that may influence the general social interactions in mainstreamed preschools. The age and/or developmental level of the handicapped children has an impact on the social interaction. The handicapped children in this investigation were of similar age as the nonhandicapped children. In Ispa and Matz (1977) and Ispa (1981), the handicapped children were older (by an average of one year) than the nonhandicapped children and thus, perhaps, at a higher
developmental level than in the present investigation. It should be noted that three of the four handicapped children who were recipients of altruistic acts were 4 to 4½ years of age. Thus, the handicapped child's age and/or developmental levels may be a significant factor in his or her acceptance. The older handicapped children tend to be at a more similar developmental level to the nonhandicapped children and thus may be viewed as a more acceptable playmates to the nonhandicapped children.

Guralnick also identified the teacher-child ratio as a factor in the frequency of social interactions. The Home Economic Preschool Laboratory is a training institute in preparing for child-oriented careers. Therefore, the teacher-child ratio is quite high--1:3.5. Guralnick concluded that high ratios seem to inhibit child-child social interactions. In fact, one-third of the nonhandicapped children's prosocial actions were directed toward the adults in the classroom.

The high ratio of teachers to children may also have caused the nonhandicapped children to perceive the teacher as the appropriate source of helping interventions for handicapped peers. Perhaps the children simply acquiesce to the more capable teacher. In addition, the teacher may be intervening too quickly when helping behaviors could be elicited from nonhandicapped peers. This explanation is supported by Ispa's (1981) finding that preschool teachers
in mainstreamed classrooms give more help and affection to handicapped than to nonhandicapped children. While it is desirable for teachers to be role models for prosocial behaviors, their interventions may be limiting peer interventions.

The ratio of nonhandicapped to handicapped children in the classroom may be a factor in the prosocial interactions as well. While the 1:10 guidelines used by Head Start is often recommended when designing new mainstreamed programs, the preschool laboratory had a ratio of 1:5 during the study. In other studies of general social interaction, the ratio is often much higher (Cooke, Apollone, & Cooke, 1977) or even with the handicapped children being the majority (Guralnick, 1980; Peterson, & Haralick, 1977). What is suggested is that in programs with higher ratios, the nonhandicapped children may interact with the handicapped children not as a matter of choice but of necessity. If the nonhandicapped children are to have any social contacts with other children, then they may select handicapped children simply because they are readily available. General social contacts as well as prosocial interactions may decrease as the ratio of handicapped to nonhandicapped children decreases.

Ispa (1981) and Guralnick (1981) have discussed the child's specific handicap in relation to his or her social interaction with nonhandicapped peers. They suggested that
the nature of each child's disability is a factor in the social contacts with peers. The anecotal sketches of the handicapped children in Ispa's study indicate that they may have been at a higher level of functioning than in most studies (e.g., They were at the same level of social play as their nonhandicapped peers). In addition, Kennedy and Thurman (1982) found nonhandicapped elementary school children were most likely to verbally indicate they would offer help to orthopedically handicapped peers over Down's syndrome or normal peers presumably because the orthopedic handicaps are most visible. None of the children in the present study were orthopedially handicapped. Of the four handicapped children who received prosocial behaviors in the present investigation, three were described as mildly developmentally delayed with oral language delay. Thus, they were probably functioning at a higher level of social development than the other handicapped children in the preschool. The fourth child was trisomy 21 and at a lower developmental level than the other three; she did not actively participate socially and passively received a shared toy from a nonhandicapped peer.

In addition, Ispa (1981) and Guralnick (1981) believe that the interpersonal skills or personalities of handicapped children are a significant factor in their acceptance by peers. This variable seems to be an important factor in whether or not handicapped children receive
prosocial actions from nonhandicapped peers. A striking aspect of the teacher descriptions of the three mildly delayed children was their sociability. All were described as having made a good social adjustment in the classroom due to their eager approach to peers. Perhaps what researchers need to focus on in future research is not the "handicap" of the children but the individual social characteristics they possess. Regardless of the children's handicaps, they have their own personality characteristics (e.g., temperament) which may be as important in their acceptance by nonhandicapped peers as their handicap.

Future investigations should also explore the frequency and possible developmental factors influencing specific types of prosocial behavior and the handicapped child's ability to deliver prosocial assistance. Lastly, greater knowledge of the social cognition of handicapped and nonhandicapped children would provide a more thorough understanding of the factors influencing social interactions.
References


FOOTNOTES

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