Social Acknowledgments for Children with Disabilities: Effects of Service Dogs
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Source: Child Development, Vol. 60, No. 6 (Dec., 1989), pp. 1529-1534
Published by: Wiley on behalf of the Society for Research in Child Development
Stable URL: http://www.jstor.org/stable/1130941
Accessed: 16-04-2015 20:02 UTC

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Social Acknowledgments for Children with Disabilities: Effects of Service Dogs

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MADER, BONNIE; HART, LYNETTE A.; and BERGIN, BONITA. Social Acknowledgments for Children with Disabilities: Effects of Service Dogs. CHILD DEVELOPMENT, 1989, 60, 1529-1534. While service dogs are known to perform important tasks for people using wheelchairs, such as retrieving dropped items or pulling a wheelchair, they may also serve as an antidote for social ostracism. Adults in wheelchairs have been found to receive many more social acknowledgments when a service dog is present than when not. This study examined whether disabled children in wheelchairs with service dogs receive more frequent social acknowledgment than when no dog is present. Behaviors of passersby in response to children in wheelchairs were recorded in shopping malls and on school playgrounds. In both settings, social acknowledgments (e.g., friendly glances, smiles, and conversations) were substantially more frequent when a service dog was present. Social effects of the dog were more pronounced in shopping malls, typical of unfamiliar settings where the child would be likely to experience being ignored or overlooked. Service dogs may assist in normalizing the social interactions for children with disabilities producing social isolation.

Approximately 2% of babies are born with abnormalities that result in mobility restrictions and stigmatization (Russell, 1985). From the moment of birth, or with the occurrence of a disability, physically disabled children have atypical social experiences with parents, peers, and colleagues. People with visible disabilities experience discrimination, and have described "people shying away from you, pitying you, or rejecting you completely. It is a complex social-political reality that one lives with day by day, year by year" (Eisenberg, 1982, pp. xiii-xiv).

Able-bodied people often evidence negative attitudes and feelings of awkwardness, aversion, or guilt when interacting with a disabled person (e.g., Kleck, Ono, & Hastorf, 1966; Schneider & Anderson, 1980; Siller, 1976; Yuker, 1965). As a consequence, personal distance and inhibited behavior are greater in interaction with disabled persons than nondisabled individuals (Kleck et al., 1968). For young children, the stigma of disability can be particularly stressful by curbing their access to the social support that plays a role in fostering physical and mental health (House, Landis, & Umberson, 1988). Children are aware of disabilities and hold negative attitudes about physical disabilities by 5 years of age (Levitt & Cohen, 1976). Many disabled children may be immature owing to the limitations on social opportunities that derive from the negative attitudes of others (Russell, 1985). Deprived of nurturing social interactions that for most children foster self-expression, disabled children regularly face negative social feedback.

Among the interventions that help to normalize the lives of people with disabilities are assistance animals. Guide dogs provide sightless people with increased mobility; with special training, signal dogs alert persons to certain critical sounds, and service dogs can also provide instrumental assistance to people in wheelchairs.

In addition to providing assistance, the presence of an animal seems to assist in eliminating social barriers by enhancing how people are socially perceived (Lockwood, 1983) and by facilitating conversations (Messen, 1984). In one retrospective study, disabled adults with service dogs reported an increase in friendly approaches during outings.

Portions of this study were conducted in partial fulfillment of the requirements for an M.S. degree in counseling at California State University, Sacramento. We thank Bett Korinek and Jane Eddy for technical assistance. Requests for reprints should be sent to Bonnie Mader, Human-Animal Program, School of Veterinary Medicine, University of California, Davis, CA 95616.

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as compared to their situations before their
dogs were acquired (Hart, Hart, & Bergin, 1987). Direct observations of passersby showed that disabled adults using wheel-
chairs and service dogs experienced a four-
fold increase in social acknowledgments as
compared to those without service dogs (Eddy, Hart, & Boltz, 1988).

In the present study, observations were
conducted of social responses to disabled
children who use wheelchairs and either
were, or were not, accompanied by service
dogs. If service dogs provide increased social
opportunities for disabled children, they may
well assist in normalizing the social experi-
ences and development. Social acknowledg-
ments were observed in a school setting
among familiar peers and in a shopping mall
among strangers.

Method
Subjects.—The disabled children who
participated in this study attend regular class-
rooms in northern California schools. While
not developmentally disabled, all were physi-
cally disabled and used wheelchairs for pur-
poses of increased mobility. Children with
service dogs participated in both the school
and public settings. Their dogs were trained
by Canine Companions for Independence
(CCI) in Santa Rosa, California. CCI arranged
contact with those parents who were inter-
ested in participating in a study of the role of
service dogs in children’s lives. The disabled
children who were to be observed in school
settings included all children with service
dogs enrolled regularly in California public
schools at the time (n = 3 girls and 2 boys;
mean age, 13.4 years, range 10–15). For the
observations conducted a few months later in
shopping malls, an additional boy who had
received a dog was included, replacing one
girl who was traveling extensively (n = 2 girls
and 3 boys, mean age, 14.4 years, range 11–
17).

Since service dogs accompany their mas-
ters at all times, children of similar age, race,
and degree of disability were selected as con-
trol subjects. Principals arranged contact with
parents interested in participating in a study
to learn about the role of service dogs for chil-
dren. All control children without dogs at-
tended Sacramento or Davis public schools
(n = 3 girls and 2 boys; mean age, 14.0 years,
range 12–16). Children participating in the
public observations lived in several different
communities (n = 5 girls and 2 boys; mean
age, 13.5 years, range 10–17).

Procedure.—Observations were made of
each child on one occasion in the school set-
ting and/or one occasion in a shopping mall.
In each instance, the child was unaware of
the observations made during periods when
the child was visible and in the presence of
passersby. Scheduling and observation dura-
tions reflected the constraints arising from
how each target child happened to spend re-
cess or shopping time, and of the observer
maintaining a surreptitious presence. Each
school observation covered the lunch recess
and school arrival or departure for 1 day. The
public observation covered one shopping
mall visit.

The school observations had total mean
durations of 43 min per child with a dog
(range 23–89) and 36 min without a dog
(range 27–44), with mean numbers of 58
(range 30–76) and 57 (range 34–79) pass-
ersby, respectively. In the public setting, ob-
servations had mean durations of 62 min with
a dog (range 50–74) and 57 min without
(range 45–65), with mean numbers of 87
(range 38–90) and 72 (range 49–106) pass-
ersby, respectively.

Observations were conducted as the
target child moved naturally about the school
grounds in wide hallways or play areas during
class breaks, and between stores in shopping
areas. So that the children would behave nor-
mally, observations were conducted without
the target child knowing of the observer’s
presence, and were made at various dis-
tances, averaging 15–30 feet, following be-
hind and off to the side of the child. Re-
sponses of all people who passed in an
oncoming direction within approximately 5
feet of the participant were recorded. With
occasional larger crowds, the passerby was
designated as the individual closest to the
participant.

For the experimental group, the observer
recorded the following specific behaviors of
each passerby and specified that they were
directed to either the child or dog, or to both:
looking, talking, and touching. Smiling at the
child-dog team was also recorded. For the
control group, the same behaviors of each
passerby directed to the child were noted.
Since smiling by passersby rarely occurred in
the school setting, it is reported only for the
public setting. When recording looks, those
looks lasting 5 sec or less were recorded as
“brief glances.” Looks lasting longer than 5
sec were recorded as “long glances.” Conver-
sations were categorized also as lasting more
or less than 5 sec. Obligatory responses, such
as remarks made in response to something the target children initiated, or remarks made by salespersons, were noted but not included in the data analyses.

An observational instrument was adapted from Eddy et al. (1988). The refined instrument was tested and verified by the two observers for interrater reliability in both the school and public settings (Cohen, 1960; Hollenbeck, 1978). The observations to establish reliability were made utilizing one disabled child with a service dog for 1 hour in the school setting and for 1 hour in the public setting. Kappa coefficients were computed in both the school and public settings, respectively, for each of the following: looking at the dog (.99, .96), looking at the child (.96, .94), looking at either (1.00, .97), talking to the dog (.88, .77), talking to the child (.86, .96), talking to either (.95, .98), touching either the dog or child (1.00, 1.00).

Percentage scores were computed for each individual child representing the proportion of the child’s passersby that evidenced each of the specific behaviors, including glancing at or speaking to the child, the dog, the child and dog, and smiling at the child-dog team. These percentage scores were ranked for statistical comparisons and graphic representation in Figures 1, 3, and 4.

To assess the quality of interactions, each of the passersby for each child was designated according to their highest level of social acknowledgment with the child. It was assumed that conversations ranked higher in social acknowledgment than smiles, which were higher than glances, and that interactions exceeding 5 sec were of higher quality than those of 5 sec or less. For each child, percentage scores were computed on each behavior expressing the proportion of their passersby who behaved at each designated interaction level, and these were used in statistical comparisons (Mann-Whitney test) and graphic representation in Figures 2 and 5. By working with proportions of passersby, comparisons could be made across children or settings, despite different numbers of passersby for each child.

Results

School setting.—For those children who were observed with service dogs, responses could occur to the child-dog team, to the child alone, or to the dog alone. For those children who had no dog, responses of course could occur only to the child. Figure 1 reveals that the child-dog teams attracted looks from passersby proportionally more frequently than did children who had no dogs (Mann-Whitney one-tailed U-test: \( U = 1, p < .01 \)). A similar pattern was seen in conversations, where again conversations were proportionately most often directed to the child-dog team \( (U = 0, p < .01) \). Conversations directed specifically to the child of the team also occurred proportionately more frequently \( (21.2\%) \) as compared to those directed to children with no dogs \( (9.0\%; U = 1, p < .01) \). Touching, although infrequent, was directed disproportionately to children who had dogs. Three of the five children with dogs received a total of nine touches, whereas only one touch occurred for an unaccompanied child.

Differences were particularly noticeable when data for each passerby were categorized for the highest quality of interaction achieved and for each child were converted to proportions of passersby at each interaction level. The pooled data in Figure 2 illustrate that child-dog teams received a predominant share of long conversations \( (U = 2, p < .02) \) and their interactions consistently more often culminated in long conversations than did those of unaccompanied children.

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Public setting.—As shown in Figure 3, the pattern of responses in the public setting resembled that seen in the school setting, but
the children with service dogs attracted even more friendly glances. This may reflect the novelty of the dog and the child in the public setting. When the dog was present, passersby looked at the team (78.0%) and the child of the team (66.2%) proportionately more often than at the child with no dog (25.4%; each U = 0, p < .01). Conversations similarly occurred proportionately more commonly with the team (8.2%) than with the unaccompanied child (1.1%; U = 4, p < .02). Smiling to the child-dog team was far more frequent than to the solitary child, as shown in Figure 4 (U = 0, p < .01).

When data from each passerby were categorized for the level of interaction achieved and then pooled, it became clear that in the public setting the passersby interacted with the child to a greater extent if a dog were present than when not. Figure 5 shows that interactions led to long conversations more often with the child-dog team than with an unaccompanied child (U = 4, p < .02).

Contrasts with setting.—For children and their dogs, significantly more passersby looked at them in the public setting than in
the familiar school setting ($U = 0, p < .01$). This contrast was not only significant for the child-dog team but also for passersby looking specifically at the child, or at the dog ($U = 2, p < .02; U = 0, p < .01$, respectively). On the other hand, both unaccompanied children and those teamed with dogs were involved in more conversations in the school than the public setting ($U = 5, p < .05; U = 0, p < .01$, respectively).

**Discussion**

Findings from the present study support the hypothesis that service dogs facilitate social acknowledgment for children with disabilities, whether they are among familiar peers or unknown strangers. The results are consistent with the previous observational studies of adults with disabilities (Eddy et al., 1988) and of able-bodied people (Messent, 1984), and with retrospective studies of people with disabilities (Hart et al., 1987).

Increased exposure and interactions between disabled and nondisabled peers can affect positive attitudinal changes of able-bodied children (Rapier, Adelson, Carey, & Croke, 1972). Increased knowledge about disabilities can itself facilitate closer interactions among children with and without disabilities (Perkins, 1978), as occurred in the schools...
with service dogs. When a service dog is introduced to a school, the children are instructed that the dog’s role is to work, and that the dog is not generally free to play. The increased acknowledgments to children with dogs thus occurred despite the familiarity with the service dogs and their working role.

Before a meaningful social interaction can occur, eye contact is generally a necessary step preceding conversation. Looking at a disabled person often reflects curiosity, and it occurs primarily in situations where looking is socially acceptable (Langer, Fiske, Taylor, & Chanowitz, 1976). The dog may make looking more acceptable, particularly among unfamiliar people. The natural curiosity many people have about disabilities, then, may be a resource available to the disabled for initiating social contacts.

Whether the children were moving among familiar peers at school or among strangers in a shopping mall, the dog’s presence was associated with increases in several measures of social acknowledgment. Not surprisingly, a larger percentage of familiar peers at school greeted the children than unfamiliar strangers in a shopping mall. The dog’s contribution appeared to increase in the shopping mall, where a higher proportion of conversations included the dog, both for brief and longer greetings. Perhaps the most dramatic contrast in the public setting is the virtual absence of smiles when no dog was present, whereas one-fourth smiled if the dog was there. If a smile conveys acceptance, friendliness, or social availability, children with dogs receive very different messages from contacts with strangers than do unaccompanied children.

References


