

Do Service Dogs Encourage More Social Interactions between Individuals with Physical Disabilities and Nondisabled Individuals than Pet Dogs?

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Abstract

Individuals with physical disabilities are often treated differently in social settings from people without disabilities. Previous research suggests that the social ostracism associated with physical disability can be alleviated by the presence of a service dog. Our study investigated whether pet dogs are also able to increase social interactions. To collect the data, we used two confederates, a male and a female, who posed as physically handicapped individuals. There were three test conditions. In the first, the confederates sat in a wheelchair alone; in the second, they sat in a wheelchair with a pet dog; in the third, they sat in a wheelchair with a service dog. The data show that both the male and female confederate received significantly more social interactions when accompanied by the pet dog and service dog than when alone. However, there was no significant difference in the number of social interactions between the pet dog condition and the service dog condition. These data provide strong evidence that pet dogs are valuable to individuals with physical disabilities due to their ability to increase social interactions between their physically handicapped owners and other people.

Introduction

Individuals with physical disabilities are often treated differently in social settings from people without disabilities. Previous research suggests that people without disabilities avoid eye contact (Edelman, 1984), increase personal distance (Eddy, Hart, & Boltz, 2001) and often experience negative emotions such as

awkwardness and guilt (Schneider & Anderson, 1980) when interacting with individuals with physical disabilities. These atypical social interactions are also reported as unpleasant by the people with disabilities. Heatherton, Kleck, Hebl and Hull (2000) report that individuals with disabilities often feel as though they must pretend to be "normal," despite their disability. They may also feel heightened insecurity and

have feelings of being judged or discriminated against (Comer & Piliavin, 1972).

The social stigma associated with physical disabilities begins at an early age and seems to continue throughout the life of the individual. The identification of individuals with disabilities as “different” may begin as early as preschool (Diamond, Le Furgy, & Blass, 1993). Throughout the teenage years and through college, nondisabled students continue to express negative attitudes when asked about interacting with disabled peers (Fichten, Robillard, Tagalakis, & Amsel, 1991). Perhaps as a result of the atypical social interactions prevalent throughout their lives, adults with disabilities show decreased engagement in social interactions (Mendes de Leon, Glass, & Berkman 2003). Therefore, the effects of the physical disability are not limited to the physical difficulty itself, but also extend into the social life of the individual with the disability.

Previous research suggests that service dogs can alleviate many of the negative social barriers commonly found in individuals with and without disabilities (Eddy et al., 2001). In a study examining the effects of service dogs on social interactions of children with physical disabilities, the results showed an increase in eye contact, conversations and even touching (Mader, Hart, & Bergin, 1989). Lane, McNicholas and Collis (1998) also found benefits for physically disabled individuals who acquired service dogs. Lane et al. (1998) analyzed a questionnaire given to recipients of service dogs trained by an organization in the United Kingdom that provides dogs to people with physical disabilities (Dogs for the Disabled). Of the recipients questioned, 92% stated that people frequently initiated conversations with them when they were out with their dogs, 75% reported that they had made new friends since acquiring the dog, and more than 33% reported that since receiving the service dog their social life had improved.

The robust positive social effects that dogs (both service and pet) can have on human interactions may result in an array of outcomes. Pet dogs have long been used to facilitate social

interactions. The research even supports TV comedies and sitcom representations that suggest that men can use dogs to acquire dates. Gueguen and Ciccotti’s (2008) data show that women are more likely to give their phone numbers to male confederates if the male is accompanied by a pet dog than if the male solicits a phone number when he is alone. The researchers also suggest that people are more willing to help individuals who are accompanied by a dog.

The strong positive social effects of dogs on individuals with physical disabilities are similar to the effect that pet dogs have on social interactions among individuals without disabilities. Wells (2004) found that passersby smiled at a nondisabled experimenter significantly more often when the experimenter was accompanied by a dog than when alone. Passersby also started conversations, many of which centered around the dog, significantly more often when the experimenter had a dog. McNicholas and Collis (2000) controlled for the possibility that the dog itself was soliciting attention from passersby by using a physically plain dog trained to ignore strangers. However, regardless of the dog’s appearance and behavior, the results were consistent with previous research: the presence of the dog acted as a social catalyst. Interactions initiated by passersby were significantly more common for individuals accompanied by a dog, even when the dog itself was not soliciting attention.

The present study was designed to examine whether the type of dog (service dog or pet dog) had an effect on the number of interactions initiated towards people with physical disabilities by nondisabled passersby. We predicted that the effect of a dog on social interactions would be so robust that both types of dogs (service and pet) would increase the number of interactions between strangers. The two confederates used in the study (one male and one female) posed as disabled individuals in need of a wheelchair. We used a male and a female confederate to investigate any possible gender effect. Throughout the course of data collection, the confederates sat alone, either with a well-behaved pet dog or with the same dog

posing as a service dog wearing a service dog vest.

Method

Participants

The passersby were observed at the campuses of Stonehill College (Easton, MA), Wheaton College (Norton, MA), and Bridgewater State University (Bridgewater, MA). The Stonehill College campus has 2,347 full-time undergraduate students and 31 part-time students, with a 39% to 61% male to female ratio. The Bridgewater State University campus has 7,943 full-time students and 2,831 part-time students, with a 40% to 60% male to female ratio. The Wheaton College campus has 2,400 undergraduates and 500 graduates, with a 50% to 50% male to female ratio. Participants were individuals who passed by during the observation period. To ensure accuracy and eliminate the effects of group dynamics, only individuals who were walking alone were included in the data. During each test condition, the observers recorded approximately 50 passersby.

Test Conditions

There were three test conditions. Each condition included a confederate seated in a wheelchair, to make passersby believe that the confederate was physically disabled. The confederates stationed themselves on footpaths of the various schools at times of day when the foot traffic was high. The first condition consisted of a confederate sitting alone in the wheelchair. The second condition consisted of a confederate sitting in the wheelchair accompanied by a pet dog. The third condition consisted of a confederate in the wheelchair with the same dog; however, the dog was wearing a service dog vest. The vest was used to mislead people into thinking that the dog was a trained service dog. The dog used in all three conditions was a quiet and well-behaved mixed breed named Cooper. All three conditions were run with both a male and a female confederate.

Procedure

During all three test conditions, at least two observers recorded interactions initiated by

passersby towards the confederate. Observers maintained a distance that allowed them to discreetly and accurately take observations without appearing to be associated with the confederate. The researchers collected data in two groups: Group A and Group B. Group A consisted of at least two observers from Bridgewater State University and a female confederate from Stonehill College. This group conducted the study at the Bridgewater State University Campus to eliminate the likelihood of the confederate being recognized by passersby at Bridgewater State University. Group B consisted of two observers and a male confederate, all from Bridgewater State University. This group collected data at the campuses of Stonehill College and Wheaton College. Similar to Group A, the male confederate of Group B was unlikely to be recognized by anyone at Stonehill or Wheaton College. During each of the test conditions, the two confederates dressed in nondescript casual attire.

Observers in each group rated the type and level of social interaction elicited by passersby. When an individual walked by the confederate, the observers recorded whether or not a social interaction was initiated by the passerby. The observers recorded an interaction when the passerby looked at or made eye contact with the confederate, made a physical gesture such as smiling, waving, or head nodding, verbally acknowledged the confederate, or engaged in conversation that required more than a general one-word response from the confederate. No interaction was recorded when the passerby completely overlooked the confederate and the dog. All solitary individuals who walked by the confederate were evaluated, and an observation of interaction or no interaction was recorded.

The experimental conditions were run and data were collected during the spring semester of 2010, between March and May.

Results

Previous research has shown that service dogs elicit social interactions between individuals with physical disabilities and individuals without disabilities. Our study was designed to examine whether or not pet dogs are

as effective as service dogs at facilitating human social interactions. To analyze the data, we calculated chi square tests for both male interactions and female interactions for all three conditions (alone, pet dog and service dog). The male confederate received more social interactions when accompanied by the pet dog and service dog than when alone ($\chi^2 = 4.198$, $df = 2$, $p < .001$). As shown in Figure 1, interaction frequencies for the service dog and pet dog trials were similar, with 48% of the passersby initiating interaction when the confederate was accompanied by a pet dog versus 43% who initiated interaction when the confederate was accompanied by a service dog. These two conditions, pet dog and service dog, were not statistically different from one another ($\chi^2 = .48$, $df = 1$, $p > .05$). The female confederate also received significantly more social interactions from the passersby when accompanied by the dog ($\chi^2 = 14.045$, $d = 2$, $p < .001$). Again, there was no statistically significant difference between the number of interactions when the dog posed as a pet dog (62% of passersby initiating conversation) versus a service dog (54% of passersby initiating conversation) ($\chi^2 = .92$, $df = 1$, $p > .05$) (see Figure 2).

The interactive effects of the service dog and pet dog were so robust that both the male and female confederate conditions showed the same pattern of results. However, when comparing the frequency of interactions between male and female, we found that more passersby interacted with the female than with the male confederate, regardless of the presence of the dog. To analyze these data, we collapsed all three conditions and calculated a chi square focused on gender and frequency of interaction. We found that passersby were significantly more likely to initiate interaction with the female confederate than with the male ($\chi^2 = 7.79$, $df = 1$, $p < .01$) (see Figure 3).

Discussion

The results of this study suggest that the presence of either a pet dog or a service dog increases the number of social interactions between individuals with disabilities and

individuals without disabilities. Previous research has shown the same effect with service dogs (Eddy et al., 2001); however, this study is the first to report that companion dogs may elicit a similar increase in social interactions between disabled and nondisabled individuals. The data suggest that some of the negative effects of social ostracism common to individuals with physical disabilities may be reduced when they are accompanied by a dog. This increase in social interactions may be one of the reasons that dog ownership has been shown to improve psychological health. Hart, Hart and Bergin (1987) suggest that service dogs may help individuals confined to a wheelchair feel more secure and confident in public. Our data suggest that a pet dog may create the same effect.

Much research has examined dogs' ability to act as social stimulants. In the Hart et al. (1987) study, researchers reported that passersby often initiated contact to ask questions about the dog. This trend was also found in the current study: questions and comments about the dog, Cooper, were the most common form of extended verbal interaction.

Our study found a slight increase in interaction frequency when the dog appeared to be a pet dog compared with the trials when he posed as a service dog; however, these differences were not statistically significant. It is possible that this small increase may have resulted from people's understanding of service dogs' responsibilities (Mader et al., 1989). Passersby may have surmised that the service dog was working, whereas the pet was not and therefore was more approachable.

Participants were more likely to initiate social interaction when the confederate was a female. In each of the three conditions (alone, with the pet dog, and with the service dog), passersby were more likely to interact with the female confederate. This finding is interesting; however, due to the limited number of confederates (one male and one female), future research is needed to investigate this question further.

Our study had several limitations. All data collection took place on college campuses, where the majority of participants were between the ages of 17 and 22. Thus, the responses of people younger than 17 and older than 22 were not examined. If more age groups were included, the data might be more representative of the general public. Similarly, the college students were probably of similar socioeconomic and educational background, which might affect social etiquette. Additionally, both confederates were undergraduate students and were roughly the same age as the participants, and this may have had an effect on the results. Future studies will control for many of these confounds.

The close personal relationships many of us form with domesticated dogs may be more valuable than previously realized. Much

research has examined why people love their pets (Archer, 1997) and the physical benefits (such as improved health) that often accompany the human–dog relationship (Friedmann & Thomas, 1995). We suggest that pet dogs not only form important relationships with their caregivers but that they also have the ability to increase their human’s social interactions with other humans. This increase in social interaction may be particularly important for individuals who are often treated differently, such as people with various types of physical disabilities. Previous research shows that these individuals can benefit from owning and working with a service dog (Eddy et al., 2001; Mader et al., 1989); however, our research suggests that a pet dog may be just as effective in improving the social lives of individuals with physical disabilities.

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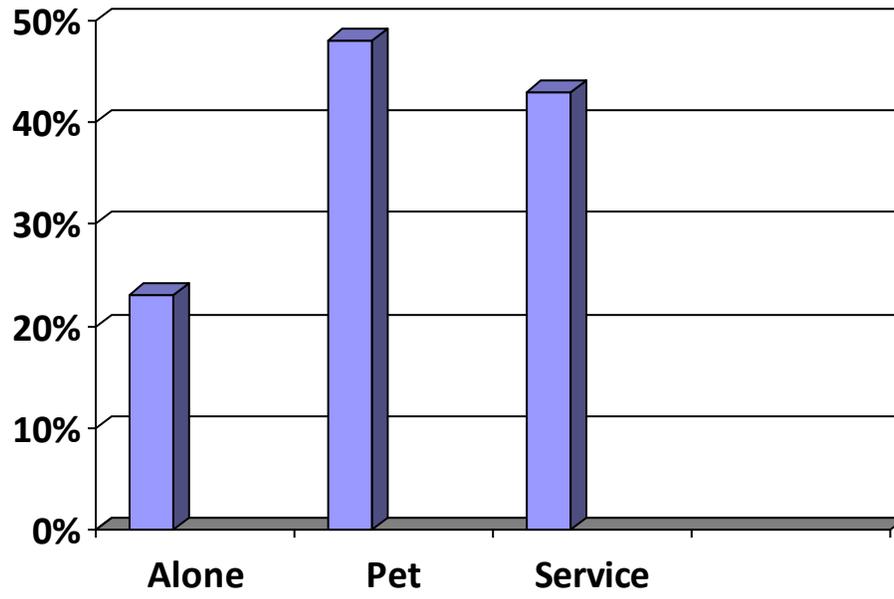


Figure 1. Percentage of passerby interactions with male confederate.

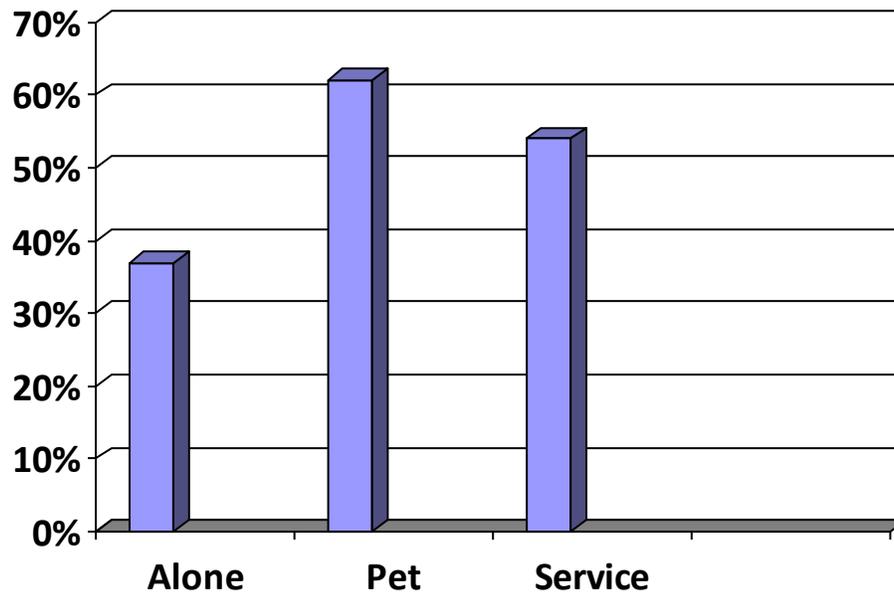


Figure 2. Percentage of passerby interactions with female confederate.

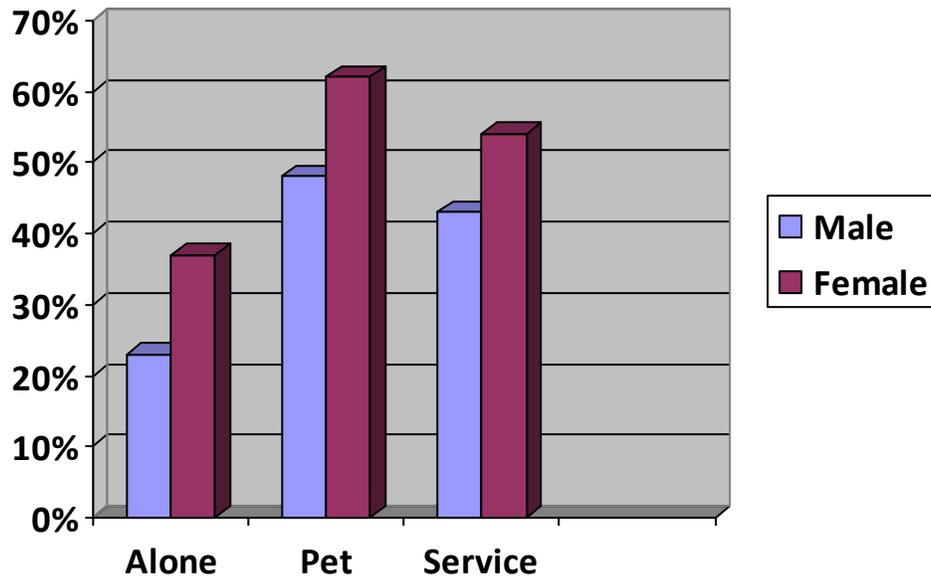


Figure 3. Percentage of interaction based on gender of confederate.

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