
INTERACTIONS BETWEEN ADULT DOGS IN OPEN SPACES

Šedivá M., Řezáč P.

Department of Animal Morphology, Physiology and Genetics, Faculty of Agronomy,
Mendel University in Brno, Zemedelska 1, 613 00 Brno, Czech Republic

E-mail: sediva-michaela@seznam.cz

ABSTRACT

One of the ways how to improve healthy life style is regular walking. Effective approaches are desirable to promote this activity. Dog walking may be such recipe. When owners walk their dogs, dogs can interact with other dogs. Therefore, the objective of the study was to investigate social interactions between adult dogs on walks. Three hundred and sixty dogs were observed. The most frequent interaction between adult dogs was sniffing. The use of a leash and the sex of the dog had a strong effect on social interactions between dogs in public spaces. These findings can help to direct future research in the area.

Key words: dog, behavior, walk

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INTRODUCTION

Dog walking is one of the possibilities how to improve quality of life for humans and their dogs. Physical activities are important for muscle and bone strengthening, energy output, vascular elasticity and many other functions (Nijland et al., 2010). Dogs are social animals and they need contacts with other dogs (Rooney et al., 2009). Therefore, dogs interact with other dogs on walks. They use a wide range of signals when they communicate each other. Until now, relatively little is known about the nature and frequency of interactions between dogs in public places. This may be one of the causes why many owners do not walk with their dogs regularly (Cutt et al., 2008). A better understanding of dog interactions about canine communication in public places can help to predict a dog behavior on walks. The aim of the study was to investigate the effect of a leash and the sex of the dog on interactions between dogs in open spaces.

MATERIAL AND METHODS

Dog interactions were observed in public places in the town Náchod from March to August in 2013. Three hundred and sixty dogs were investigated. The observation was conducted by focal-animal and all-occurrences sampling methods. Interactions were recorded when one dog met another dog. The observation was ended when owners or dogs terminated the interaction. The initiation of interaction and termination of interaction were recorded. The manifestation of dominance, submission and neutral behavior was observed. Simultaneously, sniffing behavior was recorded. The effects of a leash and the sex of the dog were seen. The behavior of dogs and their owners was not influenced by the observer. Data about dog behavior were stored in the Excel database. Off-leash dogs that were recalled by their owners during interactions were not included in further analysis. The statistical analysis of the frequency of canine behavior was performed by the chi-square test. Results were considered significant at $P < 0.05$.

RESULTS AND DISCUSSION

Dogs off a leash met each other more often than dogs on a leash (Fig. 1). Dogs of opposite sexes met more often than dogs of the same sexes (Fig. 2). Dogs off a leash initiated interactions three times more often ($P < 0.05$) than dogs on a leash (Fig. 3). Males initiated interactions nearly two times more often ($P < 0.05$) than females (Fig. 4). Dogs on a leash terminated interactions more than three times more often ($P < 0.05$) than dogs off a leash (Fig. 5). The proportion of males and females which terminated interactions was nearly the same (Fig. 6). These findings indicate that the use of a leash and the sex of the dog affect the initiation of interactions. On the other hand, the termination of interactions was influenced only by the use of a leash. Based on these results we assume that owners affect the initiation and termination of interactions between dogs.

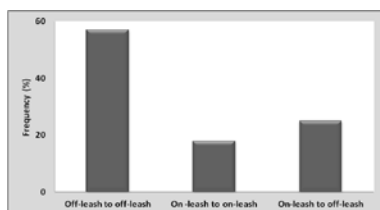


Fig. 1: The effect of the use of a leash on the frequency of dog interactions on walks

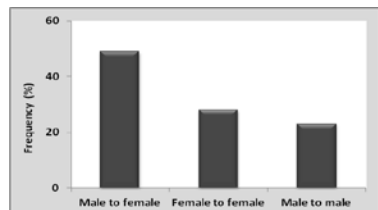


Fig. 2: The effect of the sex of the dog on the frequency of dog interactions on walks

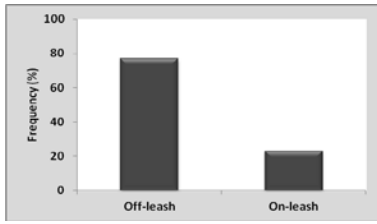


Fig. 3: The effect of the use of a leash on the initiation of dog interactions on walks

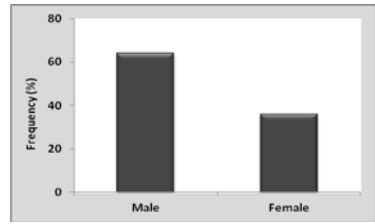


Fig. 4: The effect of the sex of the dog on the initiation of dog interactions on walks

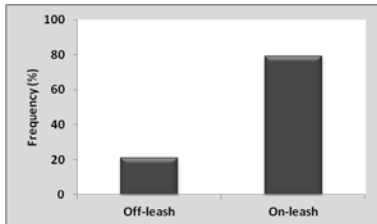


Fig. 5: The effect of the use of a leash on the termination of dog interactions on walks

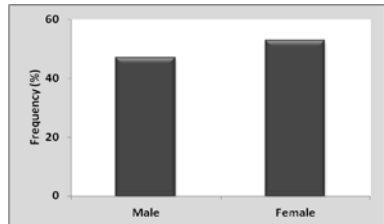


Fig. 6: The effect of the sex of the dog on the termination of dog interactions on walks

A similar proportion of dogs which were led off a leash displayed dominance and submission. Four times more dogs ($P < 0.05$) which were led on a leash displayed dominance than submission (Fig. 7). Males displayed dominance two times more frequently ($P < 0.05$) than females (Fig. 8). These findings show that the use of a leash increases probability of dominant behavior. A similar effect of a leash is reported by Trumler (1996). The occurrence of dominant behavior was also affected by the sex of the dog. Coren (2001) suggests that the dominant behavior is important for males. A dog sniffing another dog was seen more frequently in dogs off a leash ($P < 0.05$) than in dogs on a leash (Fig. 9). A dog sniffing another dog was seen more frequently in dogs of opposite sexes ($P < 0.05$) than in males (Fig. 10). These results show that sniffing behavior was more frequent between dogs of opposite sexes than between dogs of the same sexes. A similar finding was reported by Řezáč et al. (2011). Sniffing behavior was also influenced by the use of a leash. One of the reasons may be that owners affect this behavior.

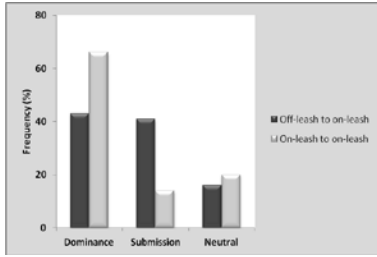


Fig. 7: The effect of the use of a leash on the frequency of dominant, submissive and neutral behavior in dogs on walks

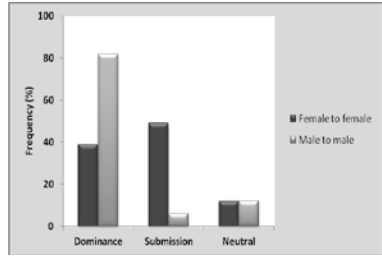


Fig. 8: The effect of the sex of the dog on the frequency of dominant, submissive and neutral behavior in dogs on walks

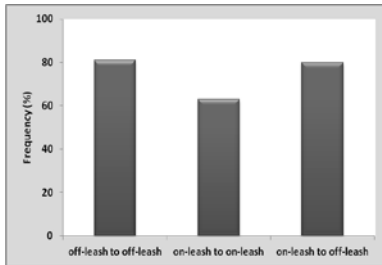


Fig. 9: The effect of the use of a leash on the frequency of sniffing behavior in dogs on walks

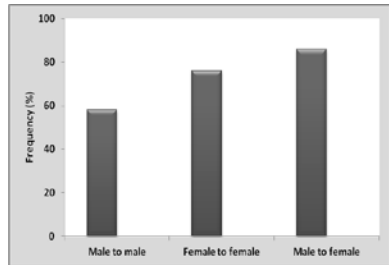


Fig. 10: The effect of the sex of the dog on the frequency of sniffing behavior in dogs on walks

CONCLUSIONS

The probability of interactions increases with the number of dogs on walks. Therefore, it is necessary to study the behavior of dogs in public places. This is important to predict and eliminate an undesirable behavior in dogs on walks. Our results showed that the initiation of interactions between dogs is affected by the use of leash and the sex of the dog. These factors also had an effect on dominant and sniffing behavior in dogs on walks.

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