

Human-Dog Interactions: Examining its Effects on Dog Behaviour, Learning Ability and Welfare

Discusses the way in which improving human-dog interactions can enhance dog behaviour, learning ability and consequent welfare.

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Introduction

Human-animal interactions in terms of pet dogs (*Canis lupus familiaris*) and their owners is a developing area of interest in the world of research. This interaction is particularly useful in dog training to extinguish problem behaviours. Two recent studies suggest that factors such as breed, age and life experience may influence the manner in which dogs communicate with their owners as well as the effect particular training methods may have on a dog's ability to interpret human cues (Passalacqua *et al.*, 2011; Yamamoto *et al.*, 2011). A third study investigated the direct interactions between owners and their dogs and the links these interactions may have on dog behaviour and learning ability (Rooney *et al.*, 2011). The aim of this essay is to explore the various facets of human-dog interactions and how behaviour, learning ability and subsequent welfare may be affected.

Discussion

Human-dog interaction is a two-way association between owner and dog consisting of several aspects. The primary features discussed in this essay are: the manner in which dogs communicate with humans, how dogs are thought to interpret human cues and the ways in which humans deliver those cues.

Passalacqua *et al.* (2011) recently studied the manner in which dogs communicate with humans by using human-directed gazing. This behaviour was compared to that of socialised wolves studied by Miklósi *et al.* (2003) using "unsolvable tasks". Although we can never be sure of animals' true intentions, the results indicated that dogs have developed gazing behaviour further than wolves when "asking for help". This suggests that the process of domestication has selected dogs with a larger chance of developing gazing behaviour (i.e., animals with a higher level of interaction potential). Passalacqua *et al.* (2011) repeated the Miklósi *et al.* (2003) experiment using dogs of differing ages and breeds, and found these factors plus life experience influenced the development of gazing behaviour. Therefore, socialising dogs at a young age could expose them to these life experiences more rapidly, allowing them to develop communicative behaviours that will aid the human-dog interaction. Housing also influences dog behaviour, with outdoor-housed dogs using the gazing behaviour less than those housed inside (Passalacqua *et al.*, 2011; Yamamoto *et al.*, 2011). Knowledge of the different factors affecting human-dog interactions will ideally increase owner awareness and encourage selection of better dogs and training methods.

Yamamoto *et al.* (2011) recently investigated dogs' inferred interpretation of human cues, particularly in terms of the attentional focus humans present when delivering cues. Attentional focus, in this study, refers specifically to the act of direct eye contact with the dog, having one's head turned towards the dog or having one's body turned towards the dog. However, it can also refer to pointing, bowing and nodding. Each of these was tested in different combinations on two groups of dogs – a group of guide-dog candidates (plus one guide dog) and a control group of other dogs. Surprisingly, despite the different styles of training the groups received, the dogs' responses to the examiner's attentional focus did not change. The authors thus concluded that dogs do not need the attentional focus from direct eye contact of a human, but rather from the human's face turned towards them (Yamamoto *et al.*, 2011). This facilitates understanding of the way in which dogs could interpret human cues and how one's behaviour can be modified to allow for more effective control of dogs, hence improving trainability.

Rooney *et al.* (2011) examined the interactions between owners and their dogs, particularly discussing how humans communicate with dogs in a domestic environment. The article draws a

distinct line between reward-based and punishment-based training. However, the authors fail to appreciate the overlapping of the two methods, the subtlety with which a punishment can be delivered, as well as failing to define “punishment”. In this way, they were subjective and somewhat anthropomorphised the dogs by stating that they were “suffering” when punishment-based training was used. This bias-related problem tends to appear in survey-based research, however, the results nevertheless show a correlation between owner attitude and dog behaviour. Therefore, it can be concluded that the behaviour and attitude of the owner towards the dog influences the manner in which the dog responds and consequently the human-dog interaction.

Problem behaviour may lead to euthanasia of pet dogs, particularly younger dogs (Edney, 1998). Therefore, modulation of dog behaviour and prevention of behavioural problems via effective human-dog interactions should be utilised to improve the welfare of pet dogs. Behaviour can be adjusted using the findings of the three studies. Consistency is essential, as owner inconsistency in terms of timing and the manner in which commands are given, is associated with disobedience (Yamamoto *et al.*, 2011). Also, training dogs of the right age with correct training attitudes and techniques, keeping in mind how the owner delivers the cues and how the owner interprets his dog’s cues, are important (Passalacqua *et al.*, 2011; Rooney *et al.*, 2011; Yamamoto *et al.*, 2011).

Conclusions

Factors such as breed, age and life experience affect human-dog interactions in terms of dogs communicating with humans by actively gazing at them (Passalacqua *et al.*, 2011), although the type of differential training does not affect the manner in which dogs seemingly interpret human-given cues (Yamamoto *et al.*, 2011). Human attitude and behaviour have significant effects on the human-dog interaction as they shape the dog’s response towards humans and any new tasks it may be presented with, hence also impacting upon learning ability (Rooney *et al.*, 2011). Therefore, not only must one select a dog of the correct age and breed to perform or be taught certain tasks, one must also take the correct approach towards the task in order to communicate as clearly as possible. This will help to avoid misinterpretation by the dog, misinterpretation of the dog and build a strong human-dog interaction. Thus, by education of owners and management of owner behaviour, dog behaviour and training ability will improve and dog welfare will surely benefit.

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