

Research into the Impacts of Aversive Dog -training Techniques

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Introduction

Traditional dog-training techniques have often involved the use of aversive stimuli such as negative reinforcement or positive punishment to encourage a change in the dog's behaviour. Such techniques include the use of electronic, citronella and choke collars to punish undesired and self-rewarding behaviour, such as nuisance barking, chasing stock, or failure to release bite in protection dogs (Schalke *et al.*, 2007). It is accepted that such techniques compromise the short-term welfare of the animal by inflicting pain and fear, and may also cause long-term damage to the dog by making it more reactive, less trusting, and "less able to reach [its] full potential in [its] partnership with humans" (Overall, 2007b). Recent studies have investigated the impact and result of aversive training on dogs, particularly the use of electronic collars, and whether they are, in fact, effective tools to train an animal.

Discussion

A recent paper on military dog handlers (Haverbeke *et al.*, in press) investigated whether the type of training received by the dog affected both its performance in a standard military evaluation, and its welfare. Meanwhile, two other studies concentrated on the direct impact of the use of shock collars to control undesired behaviours, and used physiological stress indicators in an attempt to measure the dogs' responses. Steiss *et al.* (2007) investigated the use of both electronic collars and lemon-spray collars for control of barking in shelter dogs, and Schalke *et al.* (2007) recorded the intensity of physiological stress parameters arising from the use of electronic collars in controlling prey chasing.

Haverbeke *et al.* (in press) evaluated 33 military dogs and their handlers to analyse the methods of training employed and the resulting performance of the team. A standardised evaluation, including obedience and protection work exercises, was conducted on each dog-handler team. The study found that the team's performance was directly affected by the use of aversive stimuli. Handlers who used fewer aversive stimuli on their dogs obtained a higher performance score than the average achieved by each team. The study also showed that the dogs exhibited a lower body posture after aversive stimuli, indicating a fearful response, and thus an impact on the animals' welfare. This is consistent with previous studies showing stress-related behaviour to increase in dogs that were shocked in their training, compared to those that were not (Schilder & Van der Borg, 2004).

Though the study by Haverbeke *et al.* (In press) concluded that dogs trained by negative methods did not perform as well as dogs trained by positive methods, Steiss *et al.* (2007) showed that using aversive training is still effective at stopping undesired behaviour. Twenty-four healthy, adult, mixed-breed shelter dogs wearing electronic and lemon spray anti-bark collars were studied, and barking frequency, activity level, plasma cortisol and ACTH levels were recorded as indicators of physiological stress caused by the use of this training method. The results of the study indicated that both types of collars significantly reduced barking, with no significant increase in cortisol or ACTH, leading to the conclusion that this form of aversive training is effective at controlling barking without necessarily causing stress to the animals.

Schalke *et al.* (2007) also investigated the intensity of stress signs arising from the use of electronic collars, by measuring salivary cortisol and heart rate. In this study, the use of electronic collars to control prey chasing was studied in 14 laboratory-bred Beagles. One group of dogs was shocked at the instant they touched the prey dummy, another group was shocked for disobeying a verbal recall signal when chasing the prey dummy, and the third group received shocks at random to simulate inappropriate use of the collar by an owner. The results of the study showed that the highest change in heart rate and cortisol concentrations was found in the group of randomly shocked dogs, which suggests that poor timing in the application of the shock causes a stress response in dogs. The lowest change in stress signs was in the group of dogs receiving shocks the instant they touched the prey dummy, as they

were able to predict and control the stimulus far more effectively than dogs in the other two groups.

The two studies on the shock collars (Steiss *et al.*, 2007; Schalke *et al.*, 2007) used physiological stress indicators to make claims concerning the welfare of the dogs. However, because of the complexity of the pituitary-adrenocortical axis, this connection may represent an unreliable assumption (Rushen, 1991). The observation of behavioural indications of stress, such as those identified in Schilder and Van der Borg (2004) (lowered body posture, high-pitched yelps, barks and squeals, avoidance, redirection of aggression, and tongue flicking) was very limited in the studies. Further behavioural analysis could be a useful addition to these studies to develop a more complete analysis of the reactions of dogs to aversive training techniques, and possible long-term consequences of their use. Overall (2007b) states that with aversive training, dogs “become more anxious, more pathologic, and potentially more aggressive and dangerous”. While some surveys report that 97% of respondents were satisfied with the electronic collar (Juarbe-Diaz & Houpt, 1996), Overall (2007b) argues that the dog may be demonstrating learned helplessness rather than behaviour modification, and that cessation of one behaviour does not mean the dog was rationally complying with a program designed to eliminate the reason for the behaviour (Overall, 2007a).

Conclusion

The use of aversive training such as in the form of electronic collars is the subject of ongoing controversy. Supporters claim that such collars are a reliable method of teaching avoidance and stopping undesired behaviours, but opponents state that aversive training techniques cause fear, pain and distrust (Overall, 2007b), and may not, in fact, be the best way to train an animal. Further research into the impact of aversive training techniques, such as shock collars, should include not only physiological stress indicators but also immediate and long-term recording of behavioural changes, to allow the impact on the welfare of the animal to be properly examined.

References

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