

Effectiveness of Aversive- as opposed to Reward-based Training Methods for Dogs

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Introduction

Dog training is essential if desired behaviours are to be displayed and a strong owner-dog bond established. Surveys indicate that up to 90% of dogs display problem behaviours, with these behaviours being the major reason for relinquishment and euthanasia (Yin *et al.*, 2008). Therefore, it is essential that techniques and training programs are established to effectively extinguish these behaviours. Traditional methods incorporated aversive and often confrontational techniques, which often have negative consequences (Haverbeke *et al.*, 2008). Recent studies have suggested that reward-based programs, such as using clicker devices and food, are more effective and offer improved welfare for animals (Herron *et al.*, 2009).

Discussion

Traditional aversive techniques and positive punishment often result in an increased arousal and heightened fear of the owner, perhaps provoking defensive aggression and putting owners at risk of injury (Herron *et al.*, 2009). Dogs can communicate with trainers but they are more likely to ignore trainer commands if persistent aversive correction is used. This method may also lead to a situation of "learned helplessness" (Bentosela *et al.*, 2008). Mild aversive methods may momentarily disrupt undesirable behaviours, but do not selectively reinforce desirable behaviours and are inefficient in rectifying problem behaviours (Herron *et al.*, 2009). Furthermore, they may perpetuate underlying anxiety problems, compromising welfare and increasing the occurrence of defensive aggression, perhaps teaching the dog to bite without warning (Herron *et al.*, 2009; Landsberg *et al.*, 2003). Compromised welfare is often reflected in a lowered body posture and exhibition of defensive aggression to perceived threats (Haverbeke *et al.*, 2008; Herron *et al.*, 2009).

In their investigations, Haverbeke *et al.* (2008) and Herron *et al.* (2009) examined the effects of aversive training methods on dogs. Herron *et al.* (2009) listed 30 possible interventions used to deter or promote certain behaviours and asked 140 interviewees, who had responded to the survey and reported behavioural problems in their dogs, to record the responses of their dogs. Interventions were recorded as "aversive: direct confrontation", "aversive: indirect confrontation", "reward training" and "neutral". Interviewees then recorded whether the technique used induced "positive", "negative" or "no effect" on behaviour, and whether or not it elicited a "growl/bare teeth", "snap/lunge", or "bite" from the dog. In addition, dog owners were also surveyed about the effectiveness of positive reinforcement interventions.

Common methods used to "correct" behaviour included leash correction (75% of interviewees), hitting or kicking the dog (43%), "check chains" and muzzles (both 38%). Similarly, indirect confrontational methods such as "staring down" or growling at dogs also elicited aggressive responses. Staring down and growling prompted aggressive responses from at least a quarter of dogs on which they were attempted. Furthermore, certain methods of correction were more likely to elicit aggressive responses in certain dogs. Examples include the "alpha roll", where the dog was forced onto its back and held there, and yelling "no" at dogs presenting for aggression towards familiar people.

Similarly, Haverbeke *et al.* (2008) recorded and reviewed two training sessions by 33 Belgian military dog-handling teams. Handlers evaluated dogs via a series of eight obedience exercises and five protection exercises, punishing or rewarding dogs at their discretion. Observed parameters were team performance, handler's behaviour and dog's behaviour.

Techniques used by dog handlers were primarily aversive. Leash correction and hanging dogs by their collars were the primary means of behaviour correction. Once again, these methods incited aggressive responses, with one dog biting its trainer. Moreover, they had an obvious effect on welfare, with dogs commonly exposed to punishment exhibiting much lower body postures.

In contrast, non-aversive, reward-based interventions rarely elicit aggressive responses (Haverbeke *et al.*, 2008; Herron *et al.*, 2009) and are significantly more successful in promoting desired behaviours (Yin *et al.*, 2008). This was particularly evident in the investigation by Haverbeke *et al.* (2008), when four trainers opting for a more reward-based approach had considerably more success (finishing first, third, fifth and ninth out of the 33 teams) than those primarily using punishment.

Rewards-based training and positive reinforcement, such as “clicker” training, to induce favourable behaviours, have increased in popularity in recent times (Smith & Davis, 2008). These techniques are more effective and offer higher levels of obedience than programs using aversive interventions, particularly punishment (Herron *et al.*, 2009; Hiby *et al.*, 2004). Furthermore, dogs are less likely to develop future problems such as fear-related responses (Blackwell *et al.*, 2007) and ultimately are less stressed, subjected to less pain, and therefore less likely to injure their owners (Herron *et al.*, 2009).

In their trial, Smith & Davis (2008) investigated the efficacy of clicker training in pet dogs. Eighteen Basenjis were conditioned to associate the “click” (secondary reinforcer) with food (primary reinforcer) by delivering food one second after the “click”. The control group received food alone after one second. Dogs were then trained to nose-touch an orange traffic cone. Efficacy was measured by success in performing the behaviour, time taken for training and extinction of the behaviour. Results suggested that while clicker training may not “speed up” training, it does lead to increased resistance to extinction (Smith & Davis, 2008).

Clicker training is beneficial in circumstances where it is difficult or impractical to reward an animal immediately after it has performed a desirable behaviour, such as when dogs are a considerable distance away from the trainer (Smith & Davis, 2008). Initially associating the clicker with food increases the behaviour’s resistance to extinction, despite the absence of a primary reinforcer. This is particularly significant as it offers an alternative to some more aversive, confrontational methods commonly used in long-distance training.

Conclusion

Recently, the effectiveness of traditional, aversive training methods for dogs has been questioned. Aversive techniques are often more difficult to use correctly and so abuse or accidental misuse by inexperienced trainers may seriously compromise animal welfare and increase the risk of trainer injury. Consequently, alternatives have been sought to address these issues. Reward-based training regimes have increased in popularity, offering improved efficacy and improved animal welfare. Further research into the advantages of reward-based programs is necessary to improve the efficacy of these techniques and further strengthen the owner-dog bond.

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