

## **2005 APDT Prize & Vet's Best Reward Prize Winner**

### **Animal welfare advancements in the field of dog training**

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#### **Introduction**

According to the Petcare Information and Advisory Service (2002), there are an estimated 4 million pet dogs in Australia. Nearly 60 thousand of these were received by the RSPCA during the 2003/2004 financial year and around 38% were subsequently euthanased (RSPCA Australia National Statistics, 2004). One study claims that more than 26% of pets are surrendered because of behavioural problems (Stabler, 1999), a great many of which are correctable with the implementation of proper training. Studies that broaden our knowledge of dog training contribute greatly to the advancement of canine welfare.

#### **Discussion**

Traditional dog training primarily involved positive punishment or negative reinforcement (Hiby et al., 2004) but with increasing evidence of significant unwelcome short- and long-term effects of such techniques on the animals, there has been a recent swing towards using a combination of reward-and-punishment-based, or exclusively reward-based, techniques. The training program for a team of mine-detection dogs in the United States, for example, successfully used "clicker" training as the sole training technique (Fjellanger et al., 2002).

A popular punishment-based technique for training police and guard dogs in the Netherlands in past decades was the electric shock collar. A study by Schilder and van der Borg (2004) into the behavioural effects of shocking compared the reactions of dogs that had and had not been shocked in the past to a variety of situations - a free-walk, obedience work and protection work. Several important conclusions were drawn from this study.

First, it was shown through the dogs' postural changes, vocalisations and other behavioural modifications (such as lip licking, tongue flicking and lifting of the front paw), that shocking the dogs induced fear, pain and stress, as opposed to mere tolerance. This is important, as by understanding the adverse effects on the animal, it is likely owners will be less willing to use the shock collar as a training tool.

Second, lower ear positions of shocked dogs during free-walks outside the training area suggested that dogs may associate the trainers with getting shocked. This implies that shocks have a lasting impact on the dogs and are detrimental to owner-dog relationships, a discovery that, again, may deter many owners from using shock collars. However, a control experiment was not performed to determine if being walked by an unknown person elicited the same results.

In some cases, the dog may even associate commands with getting shocked, as shown by one dog that yelped after being given the "heel" command. This is especially likely if a command is followed too rapidly by a shock, creating learned helplessness in the animal. Hence, owners wishing to use punishment may have limited success if not trained themselves in operant conditioning methods.

An investigation by Hiby et al. (2004) into the success of reward-based versus punishment-based training recognised there was an important place for punishment when used by trained persons. However, in the general dog-owning community, reward-based training was found to be more successful. The study was in the form of a questionnaire given to 364 dog owners with questions

on the training methods they used to train specific responses in their dogs and how they rated each dog's obedience in a given task.

Overall obedience scores were calculated, with the highest scores emerging for the dogs trained using reward-based methods only. There was also found to be a positive correlation between punishment frequency and the number of behavioural problems exhibited. It was hypothesised that punishment may generate problem behaviour if used inappropriately or timed incorrectly, by inducing a state of anxiety or conflict in the animal. This anxiety may also account for the increased incidence of over-excitability noted in the dogs trained with punishment. Unfortunately, this study does not take into account the fact that dogs that are more disobedient by nature may attract harsher training techniques, such as punishment, which would account for the positive correlation between behavioural problems and punishment.

The evidence from this study suggests there are no benefits to using verbal or physical punishment over positive reinforcement, a notion that, if taken onboard by owners, could potentially prevent much distress to dogs trained with incorrect use of punishment. Furthermore, abandoning punishment methods may also reduce the incidence of behavioural problems, thereby reducing the chance of a dog being relinquished.

An alternative to operant conditioning, and therefore to punishment, is the model-rival method, whereby dogs are trained to compete with another animal or person for the trainer's attention by performing the correct response. A study in the Netherlands showed that the model-rival method was equally as effective as operant conditioning in getting a group of dogs to perform a selection-retrieval task (McKinley and Young, 2003) and so provides the same welfare benefits as reward-based training.

Yin and McCowan (2004) researched the context specificity of barks in domestic dogs by measuring the amplitude and frequency of barks from different dogs in different situations. They found that harsh, low frequency, unmodulated barks were associated with disturbance situations and indicated hostility, while the more tonal, higher-pitch, modulated barks were more common in isolation and play situations and were indicative of either fear or friendliness. A spectrogram was used to compare the barks but owners were not tested on their ability to detect the different barks by ear. Since the spectrogram could not detect significant differences between isolation and play barks, it is unlikely the owners would be able to do so.

## Conclusion

Further research into this field has the potential to bridge the gap in understanding between humans and dogs. By understanding the motivation behind a problem behaviour, the owner is able to respond more appropriately and is better able to resolve the problem through means other than punishment. Improved understanding also strengthens the bond between the owner and dog and reduces the likelihood of the dog being surrendered. Finding alternatives to punishment and improving understanding between owner and dog are important steps in the improvement of canine welfare. Additional research would serve to further validate and add depth to the current findings.

## References

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