

Training methods of military dog handlers and their effects on the team's performances

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Abstract

While only a few studies have analysed training methods used on working dogs, a recent survey in 303 Belgian military handlers revealed the use of harsh training methods on military working dogs (MWD). The present work aims at analysing the training methods used on Belgian MWD and the behaviour of handlers to objectify the performances of the dog handlers teams (DH teams) and the welfare of the animals.

A standardized evaluation, including obedience and protection work exercises, was conducted on DH teams ($n = 33$). Every evaluation was done twice to assess the reliability of the observation methods. The behaviours of MWD and handlers were recorded on videotape and subsequently analysed. Results showed that handlers rewarded or punished their dogs intermittently. Stroking and patting the dogs were the most frequently used rewards. Pulling on the leash and hanging dogs by their collars were the most commonly used aversive stimuli.

The team's performance was influenced by the training method and by the dog's concentration: (1) low-performance dogs received more aversive stimuli than high-performance dogs; (2) dog's distraction influenced the performance: distracted dogs performed less well.

Handlers punished more and rewarded less at the second evaluation than at the first one. This suggests that handlers modified their usual behaviour at the first evaluation in view to present themselves in a positive

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light. During the second evaluation the dogs reacted to this higher frequency of aversive stimuli as they exhibited a lower posture after aversive stimuli. The authors cannot prove that the welfare of these dogs had been hampered, but there is an indication that it was under threat.

Low team performances suggest that DH teams should train more regularly and undertake the usefulness of setting a new training system that would rely on: the use of more positive training methods, an increased training frequency, the elaboration of a course on training principles, and an improvement of dog handler relationship.

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1. Introduction

The communication between pet dog and owner (Gasci et al., 2004; Miklosi et al., 2003; Soproni et al., 2001; Viranyi et al., 2004) and the efficiency of some stimuli and their consequences on behaviour (Hiby et al., 2004; Schilder and Van der Borg, 2004) have recently received some attention. Few studies have been conducted on human–animal communication in service dogs (guide-dogs for the blind in Naderi et al., 2001; search dogs in Lit and Crawford, 2005; military working dogs in Lefebvre et al., 2007). Human–dog communication can be studied through dog training (Schilder and Van der Borg, 2004). In this case, the most usual method of training is operant conditioning: the animal learns that its response to a command (i.e. discriminative stimulus) has consequences (i.e. appearance or disappearance of appetitive or aversive stimulus) (Reid, 1996). For instance, after the command Sit, the dog sits and receives a treat: the dog has established a link between the command Sit and the relation “to sit means that I receive a treat.” Depending on its response, four scenarios are possible: the dog will be reinforced positively (i.e. receiving a treat), reinforced negatively (i.e. stop pulling on a choke collar), punished positively (i.e. giving an electric shock), or punished negatively (i.e. withdrawal of a treat). Traditional dog training techniques have mainly used aversive stimuli. Though the use of those stimuli can be efficient in some situations (Christiansen et al., 2001), serious negative consequences have been observed: well-being problems (Beerda et al., 1998; Schilder and Van der Borg, 2004) and an increase in the number of behavioural problems (stereotyped behaviour, fear, intra- and inter-specific aggression, Tortora, 1983; Roll and Unshelm, 1997; Hiby et al., 2004). Bibliographic review (e.g. Hiby et al., 2004; Adams and Johnson, 1994; Johnston, 1995) and field observations suggest that positive training might be more efficient than aversive training. Positive training methods use positive reinforcement through the presentation of rewards in response to desired behaviours. Purely positive training can be defined as a training method where aversive stimuli, either in the form of positive punishment or negative reinforcement, are not used (Booth, 1998). This move towards more positive training methods has been observed in some institutions using working patrol dogs. In the Belgian army, preliminary studies in the field did not observe these tendencies among DH teams. On the contrary, it seems that the dogs that failed an exercise were punished (change in the tone of voice, pulling on the leash, hitting the hindquarters with the leash, using the choke or the prong collar, when dogs did not release their bite during protection work: hanging them by their collar, attaching a second leash around their hindquarters, using the electric collar, etc.), whereas dogs that carried out an exercise correctly were generally not rewarded (A.H., personal observation). Moreover, the training frequency of these DH teams is less frequent than expected from the military standards (dogs must officially train twice a month).

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