Guidelines for Dog Training and Behaviour Rehabilitation

Rehoming and Adoption Working Group

Focus Group for Dog Training and Behaviour Rehabilitation

Supported by:

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Introduction

Preface

- This document details information to guide dog trainers, canine behaviourists, as well as pet dog owners in safe, relevant, and effective means of dog training. It is by no means prescriptive as there will be variations in training methods depending on the trainer; instead, the guidelines are recommended to ensure optimal animal welfare and behavioural outcomes throughout training and rehabilitation.

Animal Welfare

- An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, and if it is not experiencing unreasonable or unnecessary pain or suffering. Good animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, and humane handling.
- It is crucial that all training tools, methods, and rehabilitation strategies do not cause harm (physical and psychological) to the dog.

What is training and behaviour rehabilitation?

- Training is the act of teaching an animal to express a goal behaviour. The methods employed will be determined by the purpose of the training, temperament of the animal and environmental circumstances.
- Behaviour rehabilitation is the modification of undesirable behaviours and/or the treatment of complex behavioural conditions. Rehabilitation can employ a wide range of

strategies, such as environmental management, medical treatment, training of obedience skills, modification of emotional states/motivational states/unintended associations etc. Formulation of an effective and humane rehabilitation strategy often requires careful analysis of the ethological, biological, and environmental causes of the behaviour.

The Science of Animal Learning

How do animals learn?

Classical/Pavlovian Conditioning

- Classical conditioning is a learning process that occurs through the association of an unconditioned stimulus that elicits an involuntary response, with a neutral stimulus. After repeated associations, the neutral stimulus begins to elicit the involuntary response and becomes a conditioned stimulus (Fig. 1). Classical conditioning was first described by Russian physiologist Ivan Pavlov.

- Examples of how this learning process is used in training and rehabilitation include:
  - Counter conditioning is a technique where an animal's emotional response towards an aversive stimulus is gradually changed through pairing it with a positive stimulus, such as food or play.
  - For example, the aversive stimulus that elicits a fearful response is paired with a stimulus that elicits a positive emotion (e.g., a tasty treat). Over repeated pairings, the animal learns to expect a tasty treat and feels the accompanying positive emotions when the original stimulus (which previously elicited a fearful response) is presented. The positive emotions are conditioned to occur instead and changes the fearful response into a neutral or a positive one. A successful counter conditioning

procedure aims to generate a positive conditioned emotional response (CER) in the presence of the previously aversive stimulus.

Unconditioned Response (Salivation)

Unconditioned Stimulus (Food)

No Response

Neutral Stimulus (Bell Ringing)

Unconditioned Response (Salivation)

Neutral Stimulus (Bell Ringing)　**Unconditioned Stimulus (Food)**

Conditioned Response (Salivation)

Conditioned Stimulus (Bell Ringing)

Figure 1. Diagram illustrating classical conditioning; the bell does not elicit a response prior to conditioning while the food induces salivation (unconditioned response). After conditioning, the dog salivates when it hears the bell. Figure source: Salehi.s, Creative Commons Attribution-Share Alike 4.0 International.

Operant Conditioning

- Operant conditioning is a learning process where behaviours become more or less likely to occur, due to the consequences that the behaviour has generated. Reinforcement and punishment increase or decrease the frequency of behaviour respectively. Operant conditioning was first described by behaviourist B. F. Skinner.
- In operant conditioning, the term 'positive' means to add a stimulus, while the term 'negative' means to remove a stimulus. The term 'reinforcement' means to increase a behaviour while 'punishment' means to decrease a behaviour. The four main processes are described below.
- Integral to this method are the four quadrants (Fig. 2): positive reinforcement, positive punishment, negative reinforcement, negative punishment.
    - <u>Positive reinforcement</u>: A stimulus is added during or after a behaviour occurs, which results in the behaviour happening more often.
    - <u>Positive punishment</u>: A stimulus is added during or after a behaviour, which results in the behaviour happening less often.
    - <u>Negative reinforcement</u>: A stimulus is removed during or after a behaviour occurs, which results in the behaviour happening more often.
    - <u>Negative punishment</u>: A stimulus is removed during or after a behaviour, which results in the behaviour happening less often.

- Examples of how this learning process is used in training and rehabilitation include:

Positive Reinforcement	Rewarding your dog with a treat when it performs a task
Positive Punishment	Smacking your dog on the nose when it chews on the carpet
Negative Reinforcement	Releasing the pressure of a tight leash/collar when your dog walks next to you
Negative Punishment	Ignoring your dog when it is barking for your attention

Figure. 2 The operant conditioning contingency table depicting the four possible processes.

Habituation and Sensitisation

- Habituation is defined as a decline in the response to a stimulus that is presented repeatedly.
- Sensitisation is defined as an increase in the response to environmental stimuli, when a particularly aversive stimulus is presented repeatedly.
- Examples of how this learning process is used in training and rehabilitation include:

  - Systematic desensitisation, where the technique utilises the principles of habituation to reduce negative emotional responses towards an aversive stimulus. The aversive stimulus is manipulated and presented to the dog at a low intensity, so that it evokes attention but not escape-related behaviours. The dog is then allowed become comfortable with the stimulus at the current intensity, before being gradually exposed to increasingly graded intensities of the aversive stimulus. It is important that systematic desensitisation is performed carefully and correctly to minimise the likelihood of sensitisation occurring, especially if the stimulus is particularly aversive.

  - Systematic desensitation is often combined with counter-conditioning to form a technique that is referred to as De-sensitisation and Counter-conditioning (DSCC). This involves gradual exposure to the aversive stimulus, while repeatedly pairing the exposure with a positive stimulus to form a positive conditioned emotional response (CER).

Factors that influence learning

- Motivational state – A dog that is satiated may not respond to training in the same way as an unsatiated dog (e.g., a dog that has just been fed may not be as willing to cooperate during training as compared to a dog that has yet to be fed).
- Stress levels – Elevated stress levels have been shown to impair learning in animals. It may be counterproductive to use training methods that causes excessive stress. Stress during training should also be minimised in the interest of the dog's welfare, while improving training success.
- Physical health – A dog that is in poor physical condition (e.g., debilitating disease, malnourished, in pain etc.) may not respond to training as well as a dog in good physical condition. In some cases, behaviour problems occur due to the experience of pain and discomfort by the dog. Any prevailing medical ailments should be addressed by a veterinarian before commencing training.
- Previous experience – It is important to find out as much as possible about the dog's history prior to training or rehabilitation as it may affect the dog's ability or motivation to learn, as well as safety considerations during training sessions (e.g., learned helplessness, previous negative experience during training sessions, lack of social skills, bite history).

Principles of Canine Training & Rehabilitation

- It is imperative to address all behavioural (physical/psychological) and medical needs prior to developing any training or rehabilitation plan. Any medical conditions (e.g., pain-related, neurological, locomotion, etc.) must also be considered as these may affect the effectiveness of the methods employed.
- Behaviour assessments should be conducted to assess the underlying cause of the dog's behaviour. Information can also be gathered through detailed taking of a behaviour history from people who have interacted with the dog. Any triggers, concerns and considerations should be documented during this information gathering exercise.
- Techniques used for dog training and behaviour rehabilitation should be science-based. Techniques should focus on reinforcing desirable behaviours and eliminating reinforcers that maintain undesirable behaviours.
- The selection of appropriate strategies (antecedent arrangement, enrichment, management, and behaviour modification) should take into consideration the genetics/breed of the dog, individual temperament, health status, previous learning experience, animal's welfare, and caretaker's circumstances (e.g., financial, time and emotional resources, skill and experience level, safety risks to vulnerable persons).
- The dog should be supervised during training and its behaviour carefully observed during training for any evidence of distress. If

the dog is displaying clear signs of distress, the training session should be ceased immediately, and appropriate steps should be taken thereafter to mitigate the distress.

- Training devices and techniques (e.g., beating, kicking, choking, lifting, or suspending the dog forcefully above ground, etc.) that causes excessive pain, fear, anxiety, and distress must be avoided.

Recommended Approach to Training

Humane hierarchy and the Least Intrusive, Minimally Aversive (LIMA) approach

- The Humane Hierarchy (Fig. 3) is a tool that can be used to guide owners and dog training professionals before and/or during training and behavior modification. Each option should be considered before moving to the next stage in the hierarchy.
  - **Health, nutritional, and physical factors:** It is crucial that any medical, nutritional, and physical factors are addressed by professionals beforehand.
  - **Antecedents:** Manipulating the environment in a way that might remove any triggers, thereby eliminating the problem behaviour.
  - **Positive Reinforcement:** A stimulus is added during or after a behaviour occurs, which results in the behaviour happening more often.
  - **Differential Reinforcement of Alternative Behaviour:** Reinforcement of an acceptable alternative behaviour while removing the reinforcer for the problem behaviour.
  - **Negative Punishment**: A stimulus is removed during or after a behaviour, which results in the behaviour happening less often.

- **Negative Reinforcement**: A stimulus is removed during or after a behaviour occurs, which results in the behaviour happening more often.
- **Extinction**: Removal of the reinforcer that results in the decrease or suppression of the behaviour.
- **Positive Punishment:** A stimulus is added during or after a behaviour, which results in the behaviour happening less often.
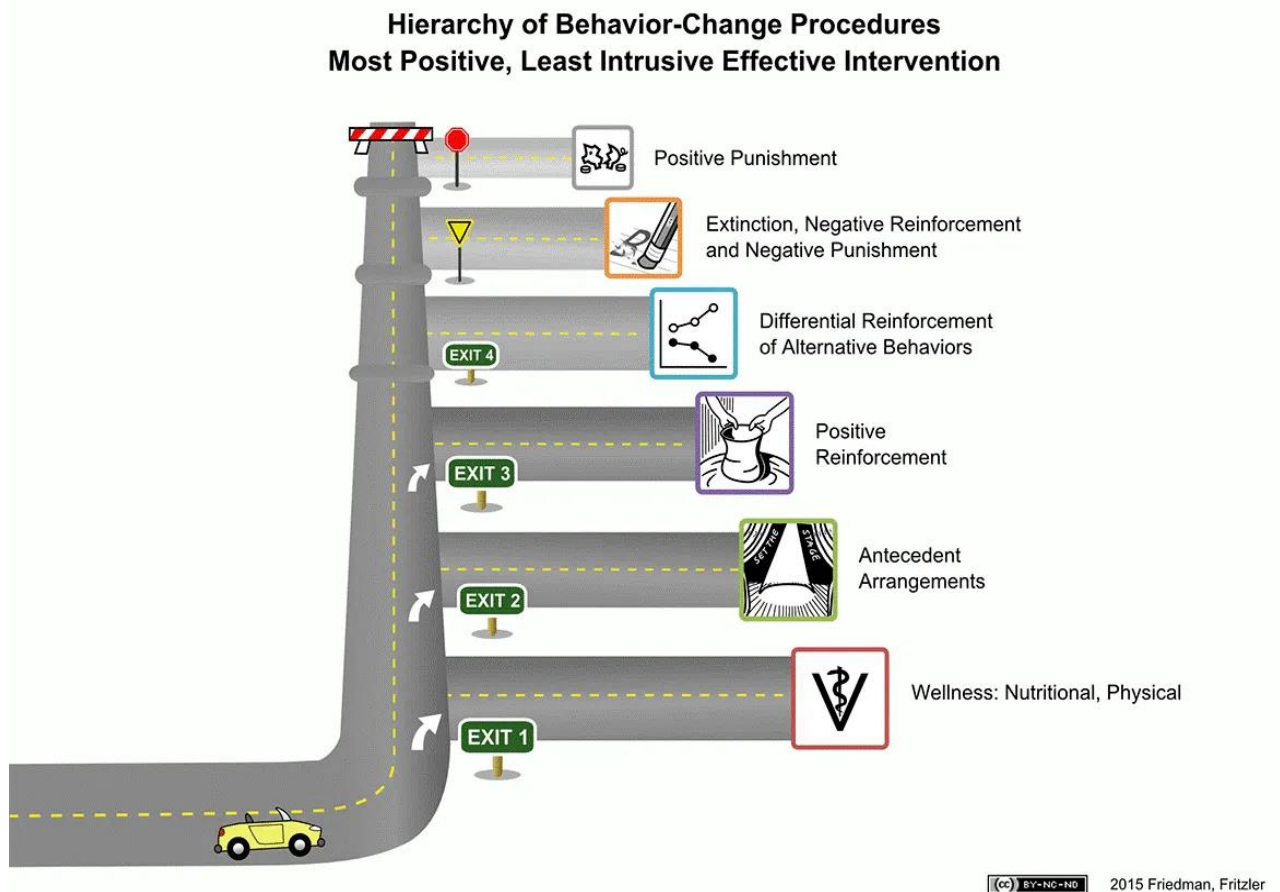

Figure. 3 The hierarchy of behaviour change procedures indicating the least intrusive, minimally aversive method starting from the bottom (exit 1) to the most undesired method at the top (stop sign).

Preventing/Minimising the Development of Behaviour Problems

Puppy Socialisation

- Puppies before 12 to 16 weeks of age should be introduced to novel environments and situations positively and adequately through appropriately controlled exposure so they can learn that these are safe. It should be relevant to the circumstances in which the puppy will be kept (e.g., dog kept in a house with cats should be socialised accordingly).
- Creating positive associations towards objects and procedures that may otherwise produce a fear response (e.g., grooming, vet visits, handling by strangers) will be beneficial for both the puppy as well as the owner and/or other humans it may encounter (vets, family members, strangers, etc.).
- Puppies should undergo supervised socialisation with puppies of similar ages, as well as to adults and senior dogs to learn beneficial social skills.
- Bite inhibition training from a young age can help prevent serious bite injuries even under provocation. Natural play/mouthing behaviour can be shaped gradually through structured training sessions and need not involve any aversive methods.

Early recognition of a behaviour problem

- Recognising and treating problematic behaviours promptly can improve the behavioural prognosis of the dog.
- Some behavioural issues such as aggression can be a serious threat to public safety as people or other animals may be injured or killed because of the problem. Serious bites often occur when aggressive behaviour such as growling, snapping and inhibited biting are left untreated (or inappropriately treated).

  - Aggression issues should be properly assessed by a professional, using objective tools and criteria such as the Dr Ian Dunbar Bite Scale.

  - Safety measures and defensive handling techniques (e.g., trained personnel only, muzzles, personal protective equipment, protective contact etc.) should be considered and implemented when necessary, during the rehabilitation process.

- A canine behaviour professional should be consulted for early behavioural intervention before the behaviour problem worsens.
- Veterinary advice should also be sought for early medical intervention to rule out any health-related causes.

How to Identify a Qualified Dog Trainer

- The trainer holds relevant qualifications in dog training and/or behaviour sciences and has verifiable practical experience.
- The trainer must be able to accurately identify and interpret behaviours that the dog is exhibiting. The trainer must also be able to recognise behavioural issues that may extend beyond training (e.g., underlying medical issues, etc.)
- The trainer is proficient in explaining the training methods and tools they would use to modify your dog's behaviour. He/she is also able to describe the underlying scientific processes that underpin these training techniques.
- Ask for references, check online for reviews or observe a training class.
- Avoid trainers who guarantee that they can solve any behaviour problem and/or advise on problems outside their recognised area of expertise. Such a trainer is not likely to understand the complexities of animal behaviour and may result in ineffective training, or even cause harm to the dog and/or the situation.

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Appendix

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