

Behavior Modification – Reinforcement and Rewards

The best way to train your pet is through the proper use of positive reinforcement and rewards while simultaneously avoiding punishment. The goal of training is to "learn" the proper task and/or behavior. First, you must be able to get the pet to perform the desired behavior reliably. Then, add a cue or command prior to the behavior, so that it can be initiated by the command or cue alone. Of course, rewards can and should be given for any behaviors that are desirable, not just those associated with commands. Generally, the most difficult aspect of training is to find techniques that immediately get the desired response after each command (See our handout on 'Puppy – Training Basics' for more details). Before effective training can take place, you must first understand how pets learn and how to use rewards effectively to achieve desirable behaviors.

How does learning take place?

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Learning occurs by establishing the relationship between behavior and consequences. There can be different possible outcomes of behavior, and consequences can be positive or negative.

When there is a positive relationship between behavior and consequences, the more your pet performs a certain behavior, the more of the consequence it receives. If there is a negative relationship between behavior and outcome, then the more of the behavior the pet does, the less of the consequence it receives. When we increase a behavior by giving something positive this is known as positive reinforcement. When we remove a stimulus to increase the behavior, this is known as negative reinforcement. A great deal of what a pet learns can be through negative reinforcement. For example, when a dog barks at an intruder (such as a mail carrier) the barking has been reinforced because the stimulus (mail carrier) was removed. Similarly if growling or aggression leads to retreat of a person or another animal then the growling or aggression has been reinforced. Negative reinforcement can also be used for training when a pull on a head halter or a spray of citronella is terminated as soon as the desirable behavior is observed.

What is positive reinforcement?

Positive reinforcement is anything that increases the likelihood that a behavior will be repeated. There is a positive relationship between behavior and consequence. The more the pet does a behavior, the more consequence it receives and what it gets is good. This makes that behavior increase.

What kinds of things will a dog consider positive reinforcement?

This may differ from dog to dog and may vary with the time of day and between individuals. For some it may be a pat on the head, a play session, a fun toy, a walk, or a food treat. The key is to select the reward that motivates **your** pet. Petting and affection can be an excellent reward when the pet is in the mood for these interactions, but can be a punishment or source of fear and anxiety if the pet is not in the mood, or if the affection is being given by someone from whom the pet does not want attention.



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To increase the motivation of a particular reward, it can be useful to wait until the pet appears to be in the mood for the reward, and can be further enhanced by withholding the reward. For example, if you feed your dog only one or two scheduled meals, then training sessions with food and treats should become most successful as the pet gets increasingly hungry and as meal time approaches. Most puppies can be motivated with pieces of food when hungry, but a different food or treat is often more appealing because of its novelty. In the same way, toys, play sessions and affection can be withheld until training time, so that the dog is "hungrier" for these rewards and so that the pet learns what behaviors will be followed by rewards. Similarly, cats can be trained with petting, play toys and food if we withhold these until such time as the pet is motivated. The more predictable the rewards, the more likely for the pet to continue the behavior (see our handout on 'Training Dogs – Learn to Earn and Predictable Rewards'). On the other hand, if rewards are unpredictable (e.g. affection) the pet will not learn the desired response.

By the way, if there is no good reason to give your dog a treat, don't give one - it gives extra calories and accomplishes nothing. Consider that, if these tidbits and biscuits were used as training rewards, you could motivate and train your pet to exhibit those behaviors that you want the pet to learn by saving these rewards for the training you wish to accomplish. In fact, whenever you are giving your dog anything of value, make certain that is preceded by a behavior that you wish to reinforce. Pets that are difficult to motivate may be hardest to train. Often these pets do better with small morsels of special treats such as hot dog slices or small morsels of cheese, or with pieces of dog food sprinkled with flavoring such as powdered cheese or garlic.

How do I properly use positive reinforcement?



The proper use of positive reinforcement is more than just giving a treat or a pat on the head.

"The timing of the reinforcement is very important."

The timing of the reinforcement is very important. Remember, your pet is behaving all the time. So, you need to be sure to reinforce the behavior that you want and not some other

behavior. Therefore, closely associate the reinforcement with the behavior that you wish to increase. Reinforcement must immediately follow the behavior. If there is any delay, you run the risk of the pet engaging in another behavior while you are administering the reinforcement. One example is when you teach a dog to sit. You tell your dog to 'sit', and manipulate it into the position. If you are saying 'good dog' and giving a food treat as the dog stands up or begins to bark, you will not have rewarded the sit. Instead, you may have rewarded the stand up, the bark or the sequence of sit-stand up and bark. Another example is when you are house-training your dog. You send your dog outdoors to eliminate and as soon as the dog is finished, you call the dog back into the house, dry her feet and give her a reward. What happened this time? You just rewarded your dog for coming back into the house and having the feet dried!

Should I reward my pet every time?

The frequency of reinforcement is important. The rate at which behavior is reinforced is called the "schedule". There are several different schedules of reinforcement.

A. *Continuous reinforcement*: Every time your pet engages in a behavior it is reinforced with a reward. While this may sound like a good idea, it is actually less than ideal. If you reward a behavior continuously, once you cease rewarding the behavior, it will often stop. Continuous reinforcement is useful when first teaching a new task, so that the animal learns the task that leads to a good outcome. In fact, for new tasks favored rewards, small reward jackpots or clicker training can be given the first few times, so that the pet quickly learns that these are very desirable behaviors.

B. *Ratio or variable rate of reinforcement*: The reinforcement does not come after each performance of the behavior but intermittently. This may mean that instead of a reward every time, the pet gets a reward every third time, then perhaps two in a row, then maybe not until the pet has performed the behavior five more times. What happens if you reward this way? Behavior tends to be stronger and last longer. This type of reinforcement is best instituted once the pet reliably knows the task you wish to teach and helps keep the pet responding at a high rate.

What type of reinforcement schedule works best for training?

"Start training new commands or tasks with continuous reinforcement but switch to intermittent, variable rates as soon as your pet is responding consistently."

Start training new commands or tasks with continuous reinforcement but switch to intermittent, variable rates as soon as your pet is responding consistently. When training pets we often use favored rewards (or even clicker training) continuously to achieve the behaviors that we want to train, and when the behavior is

learned, we often switch to lesser rewards such as a petting or praise, and only give a more favored reward intermittently.

What if my rewards are not working?

First, you may not be reinforcing the correct task. Remember the example of 'sit' and 'stand up'. Be sure that the timing of your reinforcement is correct -- immediately after the behavior you wish to increase. Second, you may be phasing out your reinforcement before your pet has adequately learned the new behavior. Go back to basics and be sure your pet understands what to do. Until your dog consistently responds to the command when it is given the first time, it can be valuable to leave a leash attached so that you can immediately show your pet what it is "supposed" to do. It is also possible that you may be repeating commands several times or in different ways, and thus confusing your pet. Another common problem occurs when you use food or toy lures to help achieve the initial behaviors. If you do not substitute a closed hand cue or move to a command, then the dog will respond to seeing the reward cue rather than the hand signal or the word.

What type of rewards should I use?

Rewards do not always have to be food. In fact, there are two forms of rewards. The first are the rewards that will motivate your dog, such as food, toys or treats, and the second are the times during the day when your dog solicits affection, attention, play, a walk or going outdoors.

For many pets, owner attention can be a reward, as can a walk in the park or a game of fetch. In fact, any time your pet is in the mood for some social interaction, and any time you are giving a toy, food or treat, you have the perfect opportunity to first train your pet to a command. If you do not keep track of when and where you give rewards, you may actually be reinforcing undesirable behavior (see below). What is important is that it be appropriate and motivating for your pet. Remember, you need not give a "special" reward such as food each time your pet performs a task, but always acknowledge good behavior, if only with praise or affection.



If you use rewards other than food, you can both train your dog and insure that you are not giving any extra calories. However, if you do use food for a reward, this is not a problem as long as you count the number of calories in your rewards, and reduce the food by an equal number of calories. Working for food is a form of social interaction as well as enrichment for your dog, so may actually be preferable to feeding all food out of a bowl (See our handouts on 'Behavior Modification – Working for Food – Dogs and Cats' and 'Training Dogs – Learn to Earn and Predictable Rewards').

Is there a wrong way to reward my dog?

Yes. We may reinforce behaviors that we do not want. Remember that positive reinforcement makes behavior increase.

"Giving any form of attention to a barking dog, a dog that is jumping up, or a dog scratching at the back door only serves to reward the behavior."

There may be times when are inadvertently giving reinforcement when the pet is exhibiting a behavior that is undesirable. Giving any form of attention to a barking dog, a dog that is jumping up, or a dog scratching at the back door only serves to reward the behavior. Sometimes people even give a bit of food, pat the dog, or play with it in an attempt to calm it down. What they are really doing however is reinforcing the problem behavior. Similarly, you may think that you are punishing your dog when you are indeed reinforcing behaviors. Examples include scolding your dog with an insufficiently harsh tone of voice, or gently pushing the dog away when it is play-biting. What is worse is that, when these behaviors are rewarded occasionally or intermittently, the behavior becomes stronger and lasts longer (see above). A reward should never be given unless it is earned.

What are other ways in which rewards can be used?

There are other situations where rewards can be most helpful. For example, it may help a puppy or even an adult dog to learn to accept new people if that greeting is always coupled with a food treat. This will help the pet learn that new people bring something good. In other cases, rewards can be used to encourage desirable behavior. Food enhanced toys may encourage a dog to chew on them instead of the household possessions. Removal of a reward as soon as the dog exhibits undesirable behavior is another training tool known as negative punishment (e.g. stopping play when the dog bites too hard). In this example, withdrawal of the reward is used as a punishment and play biting should be reduced or cease since it leads to the reward being removed.

What type of rewards would I use for my cat?

Cats respond to training like dogs. However, they seem to need reinforcement at a higher rate than dogs to maintain performance. Food is often the best reinforcement for cats, but many will enjoy play sessions with favorite toys as well.

"Think of toys and snacks as rewards, not as treats."

Like dogs, small tidbits of human food or special cat treats with high appeal may be more motivating than regular food. Train your cat with these treats before mealtime, not after, and feed your cat on a meal schedule rather than free choice so that it is hungry at training times. Remember to think of toys and snacks as rewards, not as treats. It can be an extremely useful and fun exercise to train your cat to a few simple commands (come, sit, mealtime). All it takes is to encourage the behavior (e.g. with a toy or food lure), reward the behavior, and once the cat will respond reliably, add a command. A leash and harness can also help to prompt the cat to get the desired response. These commands can come in very useful when you need to interact with your cat.

What is clicker training and how does it work?

A clicker or an audible tone (found on some remote collars) can be paired with a food reward by consistently sounding it just prior to giving the food, until it becomes a conditioned stimulus for food. The value of a clicker is that it can then be used as a reward, to immediately mark correct responses in a convenient and precise manner, with the food being given shortly afterwards. Clickers then become the highest level of rewards for most dogs. For more details on clicker training, see our handout on 'Training Products for Dogs – Clicker and Target Training'.

What is target training and how does it work?

One common question is how to get a pet to display the behavior that we want to train (and reward). Target training can be a reliable method of achieving desirable outcomes. When an animal is trained to pay attention to a target, they will follow that target, allowing the handler to easily lure them into certain positions (e.g. sit) and to redirect their attention away from competing attractions. See our handout on 'Training Products for Dogs – Clicker and Target Training' for more details.

How do I train commands?



Many people yell commands repeatedly at their dogs in order to achieve compliance. In all pets, but especially those with behavioral problems, yelling or loud voices can increase arousal levels and/or aggravate anxiety - both of these consequences are counterproductive when you are trying to teach a pet to respond in a tranquil manner. Before giving a command, get the pet's attention by saying their name; then the command should be given in a gentle voice and there should be a pause to allow the pet to respond. Responses are rewarded. Non-response or undesirable behavior is not rewarded. If the pet has a head halter on, you may be able to gain compliance with some gentle pressure; if this is not possible, the situation needs to be changed so the pet can be compliant.

A pet that has anxiety or a competing undesirable response needs constant direction. When exposed to the provocative stimulus, the pet should stay engaged with the handler via a constant dialogue. For example, the handler can say "Sophie ... sit ...watch me ... stay

... watch me ... stay ...watch me". Success is unlikely if the pet is given a single verbal command such as "stay" and expected to hold that command for a prolonged period with the distraction present.

How do I use rewards to train new behaviors?

As mentioned, when you are first establishing a new behavior, valuable rewards should be given every time for success.

"For pets that have particularly challenging behaviors and we are trying to change their response, consistent fabulous rewards or a handful of treats (jackpots) will need to be used for significant periods before moving to an intermittent reward schedule."

When the new behavior is firmly established, the rewards can be intermittent. For pets that have particularly challenging behaviors and we are trying to change their response, consistent fabulous rewards or a handful of treats (jackpots) will need to be used for significant periods before moving to an intermittent reward schedule. Rewards should be given immediately after the task is completed. Praise should always be part of the reward package in addition to other rewards such as food treats. Always try to end a training session with success. If the pet performs the behavior perfectly, you can either stop training for the day or move on to some other form of training.

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