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DESENSITIZATION AND COUNTER CONDITIONING

Two techniques which can be particularly useful in the modification of problem behavior in pets are called desensitization and counter conditioning. These procedures are often used in combination to eliminate inappropriate behaviors and replace them with more acceptable ones.

In the Pamphlets for Pet Parents on positive reinforcement and punishment, you learned about one type of learning called operant conditioning. Recall that, simply stated, this means pets learn from the consequences of their behavior. Behaviors that result in reinforcement will increase in frequency, behaviors that result in punishment will decrease in frequency.

You may have heard about "Pavlov's dogs" which is an example of another type of learning. Animals can also learn that one event predicts another. Pavlov's dogs learned that a light (in some experiments it was a bell) predicted food would follow. The dogs, that would normally salivate to food in the mouth, began to salivate when they saw the light or heard the bell. They learned bell, or light, means food. This is called classical conditioning, and doesn't depend on the consequences of behavior.

When we use counter conditioning, we want to change what the pet has previously learned. We can do this with either operant or classical conditioning. Whenever you want to change behavior that has a strong emotional basis, classical conditioning generally works best. So, if your cats are aggressive to one another, or your dog is afraid of thunderstorms, modifying your pets' emotional state is the first step in changing their behaviors.

Let's see how this might apply to a common problem in dogs. A dog might be caught outdoors in a sudden thunderstorm. The noise of thunder, nearby lightning strikes, and cold rain may frighten the dog. If the storm is intense, the fear response can be as well. The dog can learn with just one experience to also be afraid of events that precede the thunderstorm such as the darkening of the sky or the sound of wind, rain and distant thunder. After this experience, when these stimuli occur, even though the dog is inside and safe, he or she may show symptoms of fear such as pacing, whining, seeking hiding places, restlessly moving from one location to another, urinating or defecating, or showing destructive behavior in trying to escape from a room or enclosure.

Often we do not know how the initial conditioning took place. For example, a dog or cat that is afraid of or aggressive toward unfamiliar people may not have been abused. A person who has a snake phobia may not have been bitten by a snake. Although it would be satisfying to know how the initial response was conditioned, it is not necessary for the use of the desensitization/counter conditioning techniques.

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Emotional behaviors
respond well to
classical conditioning.

What is Desensitization?

In desensitization, we present the stimuli that have come to elicit the unwanted response (e.g., fear, aggression) at a low enough intensity that the conditioned response is not elicited. With humans, this is done through the creation of a stimulus hierarchy going from the least intense stimulus to the most intense. For example, a person with a snake phobia might start by looking at a plastic toy snake, then handle the toy snake, go on to look at pictures of snakes in a book, from there to looking at a videotape of snakes, and so on, eventually ending with looking, touching and finally handling real snakes.

A pet cannot help us create a hierarchy of stimuli, so we must take our best guesses about what levels of stimuli to use and carefully monitor the animal's behavior to be sure that the unwanted response is not elicited. Sample hierarchies for some common problems are provided later.

If during the presentation of the stimulus hierarchy in desensitization, the unwanted behavior occurs, this can be a set-back in eventually eliminating the behavior. So it would seem that if we could lower the probability of the unwanted behavior, it would allow the desensitization procedure to proceed more efficiently. This brings us to the technique of counter conditioning.

What is Counter Conditioning?

Classical counter conditioning is based on the idea that an animal or person cannot experience two incompatible emotions at the same time. For example, if you are calm and relaxed, you cannot be fearful. If you are happily playing with a ball, you cannot be aggressive, and so on. In counter conditioning, we use stimuli that will elicit emotions and responses that are incompatible with, or counter to, the unwanted behavior. We can then combine these incompatible emotions with the stimulus hierarchy we have developed for desensitization.

For example, suppose you have a fear of flying in airplanes. Also suppose you love to eat chocolate chip cookies. You could go to the airport and look at airplanes, taking along your bag of cookies to eat. The pleasant emotional response you have to the cookies makes it less likely that the low intensity stimulus of just looking at airplanes will trigger your fear of the airplanes.

This example makes an important point about desensitization and counter conditioning. If we gave you a bag of chocolate chip cookies and sent you onto an airplane which then took off, you would be too frightened to eat the cookies. The pleasant emotion of eating cookies has very little chance of countering a strong fear. The unwanted emotion and behavior would break through or over power the incompatible, pleasant emotion. Counter conditioning works best if the fear stimulus is at a low enough level that the emotion of fear and the resulting behaviors aren't triggered.

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Make it as easy as possible for your pet to do the right thing.

How Can We Apply These Techniques to Animal Behavior Problems?

Now let's take a common behavioral problem in dogs. Suppose your dog or cat is afraid of unfamiliar people that he meets on walks or who come to the door. When he meets unfamiliar people who try to touch him, he backs away. Sometimes when the strangers persist, he growls or hisses or and bares his teeth. You are afraid he may bite someone out of fear.

Obviously your first concern is to be sure your pet doesn't bite anyone. You would want to walk your dog in locations where he will not meet many unfamiliar people, and you will want to warn visitors to your home not to touch your cat.

Let's see how we would use desensitization and counter conditioning to help eliminate this unwanted behavior. One way to look at it is that we are going to use desensitization and counter conditioning to change your pet's attitude about unfamiliar people. At the beginning, your pet sees strangers as dangerous and threatening. Your efforts to control your dog by tugging on the leash and yelling "no," and squirting your cat with water have probably made the problem worse by making him more fearful.

Using the technique of desensitization, the first thing we need to do is establish a stimulus hierarchy going from the least frightening stimulus to the most frightening stimulus. You could start by taking your dog to a location where he will see unfamiliar people passing at a distance (for example, a park or bike path). You might keep your cat away from the door, on the other side of the room.

You will have your dog on a leash for control and have him in a relaxed posture, sitting or lying down. Keep your pet relaxed by talking softly to him, touching him and giving him an occasional very tasty treat. If your pet does not become fearful or tense, the next time, you can move a little closer to the path or ask your visitor to take a step toward your cat, to make the stimulus a bit stronger.

After your pet tolerates unfamiliar people at a distance, you could create an actual encounter by setting up a scenario with a person your pet does not know or know well. Have the person approach very slowly as you give your pet special tidbits, to help keep your pet relaxed and under control. If your pet becomes fearful or tense, have the person take a step back and try again. Wait until your pet is completely relaxed and calm before you try the next encounter. If your pet tolerates the approach, let the person make additional approaches, tossing a treat as he advances. Again, if the pet becomes tense, the person should move away until the pet is once again relaxed and happy.

Managing the distance between people and your pets is a common way to reduce the intensity of your pet's reaction and to begin the counter conditioning and desensitization process. Use tasty treats and praise to provide a calm, relaxed and friendly emotional state.

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Gradually make training sessions more realistic.

What are the General Rules for Applying These Techniques?

The procedures described above can be useful in dealing with many unwanted behaviors in all kinds of animals including dogs, cats, horses and birds. The counter conditioning part will usually involve the use of treats and praise, or gentle, quiet massage or, in some cases, play to produce positive rather than negative emotions and behaviors. You need to use rewards that are very strong—very tasty treats or really fun games.

The desensitization part will vary depending upon the specific stimuli that are eliciting the unwanted behavior. The general rules follow: (1) Start with a stimulus so low in intensity or so simple that no undesirable responses are produced. If the response is produced the first time you present the stimulus, make the stimulus less intense or less complex. (2) Go very slowly. The most common mistake people make is to go too quickly. (3) Constantly monitor your pet's response for any signs of undesirable behavior. (4) If your pet shows any signs of the undesirable behavior, go back as many steps as are required to eliminate it and start over. (5) Make it as easy as possible for your pet to do the right thing. Arrange the training sessions so that he can learn quickly and easily. (6) If you reach a sticking point—an intensity level that the pet cannot get past—try to find a way to break up the stimulus or make it simpler. (7) Work in short sessions of 5 to 30 minutes and have several sessions each week. The more sessions you do, the quicker your pet's behavior will change. (8) Each time you start a new session, go back a few steps from where you left off. Don't start at the same place you left off at last time.

Warning

Using these procedures incorrectly can make a behavior problem worse. To use these procedures safely and effectively, you must be able to follow the procedures described above. You must also be able to identify all the stimuli that elicit the behavior, you must be able to manipulate or simulate these stimuli in a controlled fashion, you must be able to present and control strong stimuli that will counter the undesirable emotional state and you must be able to prevent the continued occurrence of the undesirable behavior while you are working to resolve the problem. If you cannot do these things, seek professional help from a competent and experienced behavior consultant. Do not attempt to use these procedures on your own with severe fears and phobias, separation anxiety, any sort of aggression problem or any problem that can cause harm to your pet or to any other animal or person. Get professional help.

Some Sample Hierarchies

In setting up a stimulus hierarchy for desensitization/counter conditioning, first try to identify all of the stimuli that cause your pet to react; then arrange them in increasing order of producing a reaction. Often you can create a hierarchy with objects by varying the distance from them. The further away the pet is, the less intense is the stimulus. With moving objects like animals, people, vacuum cleaners or bicycles, hierarchies can be created by varying the speed of movement. The slower the movement, the less intense the stimulus. Start with the object not moving at all, then moving slowly, then more quickly.

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I. Thunderstorm Phobias

- A. Play a tape recording of a thunderstorm at a volume that your dog hears (pricks ears, looks in the direction of the sound) but does not become fearful. Gradually increase the volume of the tape within the session and over a number of sessions until it is as loud or louder than real thunder.
- B. If possible, add visual effects (strobe light to mimic lightening flashes). Start with low intensity and short duration, then gradually increase them. Add other elements a little at a time to make the storm more realistic. For example, wind from a fan, moisture from a humidifier, a darkened room. Each time you add a new element you may need to go back a few steps before progressing again.
- C. Gradually make the situation as realistic as you can by putting all the elements together with the loud tape recording.
- D. Don't forget to use treats, play or massage to get your dog in his "counter" emotional state before you present the thunderstorm stimuli, and continue to do this throughout each training session.
- E. During the early stages of a natural storm, do positive things with your dog to counter his fearful emotions such as play, short walks, cooking food, etc. If you are doing obedience training with your dog, a short simple training session can help to distract the dog from the storm and counter his fear.

II. Cat's Fear of Being Picked Up

- A. While reaching toward your cat with one hand, offer him a dollop of canned food or other treat he enjoys, with the other hand. Repeat until he looks for the food whenever you extend your hand.
- B. Touch your cat under the belly, as you would if you were going to pick him up (but don't). Offer the dollop of food with the other hand. If your cat enjoys being petted, you can pet him near his ears or cheeks after he finishes the food.
- C. With your hand under your cat's belly as before, gently lift him just a fraction of an inch off the floor while offering the food with the other hand. Repeat several times in succession if your cat tolerates it and licks the food from your hand.
- D. Continue to repeat, gradually lifting your cat farther off the floor OR hold him up for slightly longer each time. Do not do both at the same time (longer AND higher). You may need to ask a second person to help you, as you will ultimately need both hands to lift your cat, and your helper can offer the food.

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