Counter-conditioning and Desensitization

Counterconditioning and desensitization are powerful ways to change behavior. They are usually used in combination. Desensitization provides a means of safely exposing the pet to the stimulus. Counterconditioning is used to get the pet to perform the desired behavior.

What is counter-conditioning?

Counterconditioning is teaching a different task or behavior than the one that was previously occurring in a situation. For example, a dog lunges at the window when the mailman walks by. The new task will be sitting quietly. So, we “condition” a new response, sitting, that is “counter” to what the animal was doing previously, which was lunging. In order to teach the new behavior, practice the new task in a location and situation which does not stimulate the animal to engage in the behavior you wish to change.

Sometimes the term ‘countercommanding’ is used when the pet is commanded to perform a previously trained behavior. Instead of trying to get the dog to sit when the mailman comes by, practice getting the dog to sit by the window when no one is there. The dog is better able to learn the new task without distractions, when the mailman is not present.

What is desensitization?

Desensitization is a gradual exposure to situations or stimuli that would previously bring on the undesirable behavior, but at a level so low that there is no negative response. As the animal experiences the stimulus, but does not respond in the undesirable way, the animal becomes “less sensitive” to the stimulus, and the undesirable response is decreased. The key to effective desensitization is to design a stimulus gradient so that the pet can be gradually exposed to progressively more intense levels of the stimulus without the undesirable behavior being elicited.

How might these techniques be used in a training situation?

Take the example of the mailman. Begin by getting the dog to sit quietly by the window. Use food as an inducement to the dog to respond, and as a reward for performance. When the dog anticipates a food reward, the “mood” of the dog is usually happy, relaxed and not anxious or aggressive. These are behaviors that are incompatible with the behavior you wish to change, in this case lunging at the window at the mailman. This is counterconditioning. It may take days or weeks for the dog to learn how to perform this task reliably on command. During that time phase out food rewards so that the dog does the task equally well with or without food.

Next, train the pet to perform the desired behavior in the presence of the mailman. Desensitize the dog, by presenting the stimulus, the mailman, at a low enough level so that the dog will still remain sitting and be relaxed, happy and not anxious or aggressive. Start by having someone the dog knows, WHO IS NOT THE MAILMAN, walk by the window. The dog gets to practice the good behavior when it is easy. Repeat this many times so that the dog does it reliably. Gradually progress to stimuli that more closely resemble the real life situation. Perhaps have the dog sit by the window when the mailman is down the street. If the dog could do this well several times, try when the mailman is across the street. It may be necessary to take the dog outside. Proceed slowly, so that the dog learns how to perform the desired behavior over and over before being challenged with the real thing, the mailman delivering the mail to his door.

What are other ways to design a stimulus gradient for desensitization?
In the example of the mailman the stimulus gradient was to begin the training with a family member and then progress with the mailman at varying distances. Stimuli for desensitization can be arranged from mildest to strongest in a number of ways. For example, begin desensitization from a distance and move progressively closer as the pet is successfully counterconditioned. Sound stimuli can be presented in varying intensities from quietly to loud. A pet that is fearful or aggressive toward a man with a beard might be desensitized to young boys, older boys, men with no beards, a family member with a costume beard, familiar men with beard costumes then men with beards. Distance can also be varied. Dogs that are aggressive or fearful as strangers arrive at the front door, could be desensitized and counterconditioned to the doorbell being rung by a family member, a family member arriving in a car, a family member walking up the front walkway, a stranger walking along the path in front of the home (while the dog remains in the doorway or on the porch), a familiar person entering the home, and finally a stranger at the front door.

In order for desensitization and counterconditioning programs to be successful, it is necessary to have good control of the pet, a strongly motivating reward, good control of the stimulus, and a well-constructed desensitization gradient. A leash and head halter is often the best way of ensuring control over the dog. Each session should be carefully planned. Pets that are punished for inappropriate behavior (fear, aggressive displays) during the retraining program will become more anxious in association with the stimulus. Pets that are rewarded during the retraining program will get worse. Owners that try to reassure their pets or calm them with food or toys, WHILE they are acting fearful, will reinforce the behavior. Also, whenever a pet can successfully threaten and the stimulus (person, other animal) retreats, the behavior is further reinforced.

What are flooding and exposure techniques?

Another technique for reducing fearful behavior is to continuously expose the pet to the stimulus until it settles down (habituates). This technique will only work if the stimulus is not associated with any adverse consequence, and the pet is exposed for as long as is needed until the pet calms down. Once the pet is exposed, the stimulus must not leave or be removed until the pet calms down. Similarly the pet must not be moved or allowed to retreat until the pet habituates. Once the pet settles, reinforcement can be given to ensure that the ultimate result is a positive association with the stimulus. The pet must not be rewarded until it calms and settles down as this would serve to reward the fearful behavior. Owner intervention or punishment must not be utilized as this would lead to an unpleasant association with the stimulus. Since exposure must continue until the pet settles down, flooding is most successful for fears that are not too intense. Beginning with a somewhat lower or muted stimulus may be best. In practice, keeping the pet in a cage or crate or keeping a dog on a leash and halter during exposure to the stimulus, will prevent escape and prevent injury to the stimulus (person or pet).