behavior department

Food for Thought

Modifying food guarding behavior in the shelter environment

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Cooper, a 1-year-old pointer mix, was enrolled in the Humane Society of Boulder Valley's behavior modification program to work on his food-guarding issues. Cooper's face shows the pleasant, anticipatory response staff members look for when working with dogs.

Charlie, a social, wiggly, young miniature poodle mix, was the highlight of my days at the Humane Society of Boulder Valley (HSBV) for a 10-day stretch last spring.

He was a joy of a dog, actively greeting and entertaining visitors, his little white body almost humming with exuberance, his open mouth panting the joys of puppyhood and painting unsuspecting faces with enthusiastic licks. When greeting a dog playmate, Charlie became a bouncy, bounding, white streak of play!

To the casual observer, Charlie appeared to be a fun and enthusiastic dog, a lovely match for many an adopter. However, when approached while enjoying a hearty meal, Charlie guarded his food bowl with intensity, a behavior problem that had rendered him unadoptable at his previous shelter. Charlie displayed the full complement of warning signals when a person drew near his food bowl. Whenever I approached, he commenced gulping large mouthfuls of food and then progressed to freezing over the bowl, growling, and finally exhibiting an inhibited bite.

Dogs like Charlie are the very reason we developed our behavior modification program at HSBV. Recognizing that behavior problems are the most common reason for relinquishment in our community, we made the strategic decision to build a comprehensive training and behavior modification pro-

gram to address the needs of the animals coming through our front doors. Our program focuses on rehabilitating dogs who would otherwise be unavailable for adoption due to a specific behavior problem in one of the following categories: food guarding, body handling sensitivity, dog-dog incompatibility, fearful behavior, or separation anxiety.

Our development of the program originated from a desire to reduce euthanasia in our own shelter. Based on the success we have experienced, we strive to share our strategies with other shelters and encourage the momentum of behavior modification across the country, increasing the lives saved in our own community and beyond.

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We created and piloted our behavior modification program from March 2007 to March 2008. After a successful pilot phase, we formalized the program in April 2008. Since then, 684 dogs have entered the program, representing all five of our behavior modification categories; 17 percent of these dogs—like Charlie—were transferred to us from other agencies unable to place them for adoption due to a specific behavior problem. The program has shown overwhelming success, with 95 percent of the participating dogs completing the appropriate treatment plan with successful resolution of their behavior problems.

In Charlie's case, for example, his social behavior with people and other dogs, his single behavior problem (his resource guarding was limited to food), and his very clear warning signals rendered him an excellent candidate for behavior modification.

Food Guarding: A Life-or-Death Matter

One of the most common components of a shelter behavior evaluation is an assessment of a dog's potential for food-related aggression. A food-guarding assessment usually involves a staff member approaching a dog while he is eating and attempting to remove the food bowl with an artificial hand. Dogs who display guarding behavior such as a freeze, growl, or bite to the hand are frequently deemed unsafe to rehome and euthanized.

We receive more requests to accept food-guarding dogs from our transfer partners than for any other behavior problem. That's understandable. When unaddressed, food-guarding behaviors can result in bites—sometimes to children, whose shorter height often places them at the dog's face level, increasing the risk of a bite to the face, and who don't always recognize the canine warning signals that adults might see. When we consider the prevalence of food guarding in dogs and the lack of resources most shelters have to devote to rehabilitation, it's clear that a significant number of shelter dogs are facing euthanasia because of this issue.

Understanding Food Guarding in Dogs

To modify the behavior problem, it is worthwhile to consider the biological legacy of dogs and the nature of food-related aggression. Food guarding is one of the most common types of aggression, and indeed, many pet dogs are food guarders.



Staff use an artificial limb known as an Assess-A-Hand to help determine a dog's potential for food-related aggression.

Understanding the reason for the prevalence of this behavior may be as simple as understanding and acknowledging its adaptive significance. In a natural, nondomestic environment, food guarding provides survival and reproductive advantage for the guarder. A dog who guards his food is more likely to live, and therefore more likely to survive long enough to reproduce. (I find it wildly fascinating that this behavior is still strongly exhibited by the domesticated species with whom we share our homes today. It certainly speaks volumes regarding the evolutionary significance of the trait.)

I have always appreciated behaviorist Jean Donaldson's description of resource guarding as "an equal opportunity behavior problem." At HSBV, we have observed and resolved food guarding in dogs from 8 weeks of age to 8 years, in breeds ranging from miniature poodles to bloodhounds. Food guarding may crop up in any dog, regardless of age, breed, or life experiences.

One of the most surprising things to many people is the large number of dogs who appear friendly and approachable during social interactions, but will rampantly guard a meal. Charlie's display of food-related aggression and my description of him as a friendly dog may appear contradictory, but I have observed some of the loveliest dogs display this specific type of aggression.

Food guarding does not indicate that the dog is an "aggressive" dog. Even friendly, social dogs may exhibit aggression when approached while consuming a satisfying meal. It does not mean the dog is abnormal; it simply means he is a dog. Dogs who display multiple, clear warning signals—freezing, growling, snarling—and a slow escalation between each warning signal are the best candidates for behavior modification. Dogs who show relatively few warning signals, appear to bite explosively, and inflict damaging bites are in a much trickier category with a less favorable prognosis for rehabilitation.

While it's neither unusual nor unnatural, food guarding is certainly a serious concern that can create dangerous and undesirable behavior in our domestic environment. Fortunately, it is usually preventable and quite modifiable—even in the shelter setting.



Cooper sits when Lindsay Wood, HSBV's director of animal training and behavior, approaches him to deliver a bowl of food.



Cooper demonstrates his new, enthusiastic response (he lifts his head, and wags his tail) when Wood approaches his food bowl. Wood gives him a treat, so that he considers her approach to be a positive event.

Modifying the Behavior

The goal of the food-guarding program at HSBV is to save more lives in our own shelter as well as in other shelters across the country. To this end, we developed a standard behavior modification plan that allows for efficient treatment of food-guarding dogs within a short period of time. A primary challenge to this endeavor is the design of a protocol that has minimal impact on the dog's length of stay in a shelter and can be easily replicated by other shelters. The treatment plan we developed can be fully completed by two people in less than 14 days and is manageable for shelters lacking extensive resources.

We use only science-based, force-free behavior modification techniques to treat social and friendly shelter dogs who display food-related aggression. Our protocol for food-guarding modification uses two of the cornerstones of behavioral psychology: counter-conditioning and desensitization. These two techniques are used very successfully to treat behavior problems that have an emotional basis, such as fear, anxiety, and aggression.

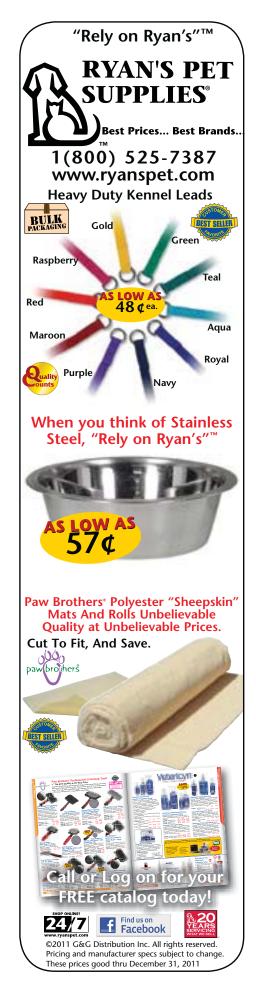
Counter-conditioning teaches a dog to feel better about a thing or event that ini-



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tially caused him to feel fearful, anxious, or threatened. For example, a food guarder often appears to feel tense or threatened when a person approaches him while eating. The goal of counter-conditioning is to counter or change this emotional response by teaching the dog to look forward to being approached while eating.

We can do this by creating a positive association to our approach and removal of the food bowl. Using our work with Charlie as a typical example, we approached his food bowl and immediately provided him with a high-value treat, usually something really delicious like chicken or even a dollop of meatbased baby food. Over time, our approach became predictive of the special treat, and Charlie began to demonstrate anticipatory, enthusiastic behaviors when we moved toward him, starting to lift his head from the food bowl as we moved near the food dish, lick his lips in anticipation of the goodies, wiggle his body, and wag his tail as we reached him. These enthusiastic responses to our approach were our indicators that we were effectively changing his initial emotional response.



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Decreasing Sensitivities

For the counter-conditioning treatment to be effective, we have to teach this positive association without making a dog feel threatened, which would potentially trigger his aggression.

To do this, we use counter-conditioning in conjunction with another type of treatment: desensitization. Desensitization involves exposing a dog to a less intense version of the event that makes him feel tense or threatened. The key element of desensitization is that the initial intensity of the event must be so low that the dog feels none of the original tension or threat.

In the case of food guarding, we begin behavior modification by approaching an empty food bowl (an item that the dog does not guard), and then we provide our counter-conditioning treat. Over time, we work up to approaching a bowl filled only with dry kibble and finally to approaching a bowl filled with high-value canned food mixed with kibble. Our moving up to these more intense versions of the trigger is contingent upon the dog demonstrating those anticipatory and enthusiastic emotional responses at each and every step.

Our training and behavior department staff provide two behavior modification sessions per day for each dog. To best ensure successful treatment, each dog goes through the protocol twice with a different staff member each time. The average length of time in treatment is 11 days. Additional daily activity and enrichment is provided through play groups, basic manners training, and walks with our interns and volunteers. Once the treatment plan is complete, the dog is reevaluated for food guarding by a new person (one who did not provide treatment and is unfamiliar to the animal).

New Beginnings

Once a behavior modification graduate enters our adoption center, we strive to ensure a successful transition into his new home. We recommend homes with children at least 7 years of age, and we provide ongoing support to adopters, including complimentary telephone support, private consultations, and training classes to address any behavior concerns and promote a healthy relationship between the adopter and new pet.

The training and behavior team also collects follow-up information from adopters at two weeks, two months, and one year postadoption to assess the adoption and help ensure continued success in the home. Our follow-up data indicates very few instances of the behavior resurfacing in the adoptive home, further supporting the long-term success of behavior modification in shelters.

Since we developed the food-quarding program, 89 percent of the dogs who entered it have successfully completed the protocol and passed the retest, demonstrating the efficacy of this type of modification and the resulting ability to rehome many more dogs. Within two days of graduating from our food-guarding program, Charlie found a new home and a loving family. According to his happy adopters, Charlie is a charming and joyful enhancement to their family. He continues to greet them with enthusiasm when they approach his food bowl. Charlie seems to be enjoying his fresh start, and his adopters are delighted with the newest addition to their home!

We are so grateful to be able to provide second chances for so many shelter dogs. For our behavior modification graduates, their stories are only just beginning. Our support of these dogs and their adopters will continue throughout their lives.

We are thrilled with the program's success and the opportunity to help save lives, and we hope our story will encourage and support behavior modification in more shelters. We are happy to provide training to other shelters, and share protocols and strategies to increase the scope of our lifesaving opportunities. **AS**

For more information regarding the behavior modification program, food-guarding workshops, and consulting support from HSBV, visit boulderhumane.org.



Lindsay Wood is an associate certified applied animal behaviorist and director of animal training and behavior at the Humane Society of Boulder Valley. She credits

her companion of 10 years, Lyra, for helping get her into the field.