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A Pilot Study of the Confounding Effects of "Jute" on Law Enforcement Canine Training

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Abstract

This study is one of the first of its kind to examine the effect of different training methodologies involving the use of canines in police operations. Specifically, this study seeks to determine if the use of protective equipment (also known as "jute") significantly interferes with the training process of canines in building searches. While it has not been formally demonstrated, there is widespread speculation that dogs trained by agitators consistently wearing jute respond not to the individual human scent but rather to the odor of the jute worn. This study will fill this gap in literature and address this question. The findings and suggestions of this study are important to law enforcement and the greater criminal justice community not only for its training implications, but it also stands as one of the few studies published to methodologically control for inherent threats to the study design. While this study is not the final word, it is hoped that more academic work can be done demonstrating the potential effectiveness of canines in police operations.

Introduction

Mankind, since the beginning of time, has always been fascinated by dogs. Some dogs serve as family pets, others are used to track prey, some work for the family, while other are used by government agencies in the course of their official duties (Chapman, 1990). The use of canines in the past provided law enforcement with a valuable tool, which if used properly, can improve both the efficiency and effectiveness of policing, all the while serving as an important public relations tool.

Previous research has been able to prove that the use of canines in police agencies improves officer morale, deters would-be attackers from attempting an assault and allows agencies to send operatives into a building limiting potential loss of human life. Presently, canine units are an essential part of any metropolitan policing effort. They can search buildings and locate missing or dangerous persons, detect contraband that is hidden in bags, boxes or containers, and serve as a symbolic threat to perpetrators who may attempt to elude an officer on foot. While there are a variety of uses of canines in policing, the majority of agencies use these dog-human teams to search buildings where there is limited visibility, a large amount of space to search, or the officers believes that an imminent threat may be hidden within the premises. Remsberg (1986) found that that greatest danger to officers conducting a building search is the ability for suspects to remain in concealment and ambush officers as they approach. As a result, the use of canine teams to locate hidden suspects has become a routine part of building searches (Eden, 1993).

In this regard, the extant literature has suggested that canines are able to clear buildings quicker, more accurately and safer than if an individual or team of officers attempted the same task (Ellis & Kirchner, 1990; and Bryson, 2000). The efficiency and effectiveness of canine search teams is however contingent on the quality and type of training that each dog receives. The accepted contemporary practice of training these dogs is embedded in the idea that these teams must train in situations that simulate the actual environment that they are called to intercede in. In layman's terms, this means that the dogs must be trained to search a variety of structures and how to respond to individual suspects in varying psychological states of distress. However, training for these operations presents a safety issue for those actors in these scenarios. Often, protective equipment composed of "Jute" (or similar material) is worn during training to allow the dogs to bite without injuring the agitator or the dog's teeth (United States Air Force, 1973).

One of the questions that has yet to be empirically tested concerns the speed and efficiency which dogs are able to locate a suspect. Some have suggested that if dogs are trained to locate suspects wearing jute, it is not only possible, but quite plausible that dogs may focus their ability to locate suspects solely on the scent of jute and not the scent of a human subject. That is the question that this research attempts to answer. More specifically, does the way in which canines are trained and efficiency measured work in the real world, outside of experimental conditions?

Review of Literature

The ability of dogs (*Canis familiaris*) to detect human scent is strongly documented. Human scent is composed of skin flakes, perspiration, skin oils and gaseous components that are perceived by dogs through their olfactory senses (Kristofek, 1991; Pearsall & Verbruggen, 1982). When tracking the scent of a suspect, a police canine can follow the scent of skin flakes and disturbances to ground vegetation. If the canine is attempting to locate an object for recovery, the canine's sense of smell allows the dog to search for the skin oils of the suspect that may have been left on the article. Kristofek (1991) found that canines are capable of locating such objects (e.g. guns, clothing, etc.) up to 48 hours after contact with these oils.

Building searches, however, involve a different type of search. Airborne scents from fatty acids in the skin oils allow the police canine to detect a hidden suspect (Kirchner, 1977; Kristofek, 1991). According to Bryson (2000) glands throughout the body produce perspiration in response to increases in temperature and emotional stimuli, such as stress, fear, or anxiety. These glands, located all over the body, react differently based on "factors such as age, race, sex, size, physical and psychological conditioning . . . Additional factors, such as food, clothing, and lifestyle, cumulatively affect the air or ground scent picture presented to the searching dog" (123-124).

Olfactory Sensitivity

Syrotuck (1974) compared the sensitivity of the sense of smell between humans and canines. He found at a minimum that a dog's sense of smell is at least 44 times greater than the average human. Other research has found this difference may be as great as 100,000 times (O'Block, Doeren, & True, 1979).

Additional research has also confirmed that dogs are able to distinguish between the odors of different people (Kalmus, 1955; Moulton, 1969). In fact, the Institute for Biological Detection Systems at Auburn University (1998) found that canines could be trained to detect as many as ten separate and distinct odors without any deterioration in performance. Based upon these early

findings, an entire field known as "odorology" developed to answer questions and deal with the forensic applications of canine scent discrimination.

Current Training Modules
Although canines are capable of distinguishing between different scents, it has been suggested that dogs, like human beings, perform at the level that is requested of them. In this sense, if a canine is continually trained to find a suspect wearing "jute," it is likely that when searching for suspects without the odor of the protective equipment the dog will either not locate the suspect or may take significantly more time in this task. This concern was addressed by Skalski (2000). He stated that handlers should "be aware of using the same decoy or always hiding with a sleeve. These things will breed a familiarity that the dog may associate with the find and indication" (p. 1).

Frequency of Training
There are other concerns found in the literature concerning the amount and frequency of training that police canines undergo. There has been a suggestion that canines need constant training to exercise their scent discrimination capability. To answer that concern, a study by Williams et al. (1998) found that canine teams may go for up to four months (120 days) without a refresher course, with no loss in performance capabilities. However it must be noted that this took place under controlled conditions and the authors noted that modification of training techniques for work dogs was not recommended (Williams, Johnston, Waggoner, & Cicoria, 1998).

Environmental Concerns
Canines possess the innate ability to discriminate between as many as ten different scents in controlled settings (Williams et al, 1998), However, we don't know how a dog's performance is affected by environmental conditions that are less than ideal. In police work, building searches, by their nature, present challenges that affect scent detection. If a suspect hides within a closed area, the scent will pool within that area and intensify (Bryson, 2000). If that same suspect were to then leave that area and find a new spot to hide, the canine would still be drawn to the first area where the scent is strongest.

Weather and Wind Conditions
Just as the size and shape of the structure can be an important determinant of the success of a canine to detect and locate a suspect, the weather can also be a factor. High humidity or extreme heat and cold can impede scent detection efforts (U.S.A.F, 1973; Remsberg, 1986; Bryson, 2000).

Others have found that the scent of the agitator must be controlled for in each test. Thus, many have found that any true test involving the discrimination of scent by dogs must include the use of the same agitator (Pearsall & Verbruggen, 1982; Kristofek, 1991; Bryson, 2000).

Other factors within a structure may also influence the ability of the canine to locate the suspect. For example, air currents in a structure may swirl and collect scent in specific areas depending on the architecture of the building. Hence it is possible that airflow turbulence may cause the dog to alert his handler at errant locations resulting in a series of false positives (Bryson, 2000). These factors all contribute to the overall effectiveness and efficiency of the operation.

Efficiency and Effectiveness
Any discussion of the use of canines in police search operations would not be complete without a discussion of the efficiency and effectiveness of their utilization. In general, effectiveness refers to

the ability of a person, organization or other entity's ability to achieve their goal. Effectiveness is generally measured in either percentages or reported as a ratio. Within this context, the effectiveness of the use of canines in search operations can be measured in terms of percentages using the number of total attempts and the number of successful discoveries. Many studies have done just that, with the overwhelming majority reporting that the use of canines are much more effective than the use of human personnel alone. In fact, Wolfe (1991) found that canine teams were able to locate hidden suspects 93% of the time compared to only 54% when officers searched the building alone. Wolfe points out that the canine teams performed at 100% accuracy in all but one building. Wolfe hypothesized, but was unable to prove, that chemical or gasoline odors may have interfered with the dog's ability. Scent contamination may also have interfered with the studies as time constraints forced researchers to reuse buildings with as little as fifteen minutes between searches.

Just as important as the effectiveness of the use of canines is their efficiency or the amount of time it takes for a dog to acquire its target. Previous research has been shown that efficiency in search operations is often contingent upon the amount of area that needs to be searched. As the area increases, it stands to reason that any measure of efficiency will also decrease. Wolfe (1991) discovered that as the square footage of the building increased, the accuracy of the human teams decreased and their time involved with searching increased. Thus it stands to reason that barring safety issues, humans and dogs can search very small areas with little to no difference in a measure of the efficiency or effectiveness. However, as the search area increases in size, there is the expectation that the superiority gap between the performance of canines and people will increase.

Methodology

As demonstrated above, there are many issues that need to be thoroughly addressed concerning the use of canines in policing, especially the training issues surrounding the use of dogs in search operations. There are training issues such as whether jute has any influence on the discriminatory ability of the dog's sense of smell, how often a dog needs to be trained, the effect of airflow in a building, amount of relative humidity, the placement of the potential suspect and many others.

The Police Work Dog Association of Florida (PWDAF) agreed to assist with this research by allowing modification of their plans for a conference that took place in November 2000 in Sarasota, Florida. Researchers were brought in to assist with the task of designing a quasi-experiment to help answer some of these questions and to generate suggestions as to future dog training methods. The research team and members of the PWDAF met twice and agreed upon a time and place to conduct the actual field experiment. In order to maximize the generalizability of the study, dog teams were brought in from around the state. Since each of the dogs were trained by different handlers at different times and different locations, this context would help maximize our efforts to generalize the findings of this study to the rest of the population.

A total of five dog teams representing five different law enforcement agencies agreed to participate in this experiment. Each handler was briefed on the purpose of the study and was allowed to provide input into the experimental conditions. Each of the chosen teams had used "jute" in the training of their dogs. Before the trial began, each participant was interviewed and provided basic demographic information about the dog, their handler and the type of training that the dog had had. As shown in Table 1, the participants in this study represented a wide range of experience and training on the part of the handlers and their dogs. While we recognize that we are not dealing with

a large sample, this diversity appears to be similar to that of the population (canine dogs and handlers) in this state and beyond.

Table 1: Demographics of the Sample

Handler's Age range: 27 - 58
Handler's Median Age: 32
Handler's Experience (mean): 7.5 years
Handler's Experience (median) 5.0 years
K9's Experience (mean): 2.8 years
K9's Experience (median): 1.5 years
Training type: All dogs trained in bite and hold

One of the key elements in this study is the field test. This test was undertaken in a 10,000 square foot building in Sarasota County, Florida. The size of the building was chosen because state minimum qualification standards require that a properly trained canine should be able to locate a suspect in a 10,000 square foot building within 10 minutes (Florida Department of Law Enforcement, 1987).

Of critical interest in this study was the use and non-use of "jute" and if this substance affected either the efficiency or the effectiveness with which the dogs were able to locate hidden suspects. Each dog team was given two tests (one with the presence of "jute" and one without) to determine if the scent of the protective gear in the building significantly reduced the amount of time it took the canine to locate the subject and alert the handler. The hidden suspect remained in a similar location for both groups. It was impossible to use the same 'hide' location due to the possibility that jute odor would collect and influence the findings. Fortunately, the design of the building provided two identical locations at opposite end of the structure. The locations utilized were elevated ventilation shafts, well hidden at ground level from both the dog and handler's field of vision. Ventilation shafts were chosen to protect the virtual suspect during the test when he was not wearing a jute protective suit. Additionally, the ventilation shafts had nearly identical air flow characteristics.

A second phase of this pilot study was also conducted. This experiment was designed to determine if the presence of jute would distract a dog from acquiring its target. To operationalize this test, we placed a jute "arm sleeve" along the dog's search path but behind a closed door to see if the jute itself would cause the dog to signal an alert. To make sure that the test was not contaminated, a second building of similar dimensions was utilized. To avoid the possibility of stale human scent as a contaminating influence, the jute material chosen for this phase had not been touched or come into contact with any person for six months.

During searches, canines were instructed to search and then released into the building. The dog worked off lead, but under verbal control of the handler. An observer accompanying the dog's handler, timed the exercise, and monitored progress. The time started when the dog broke the plane of the entry doorway and stopped when a positive alert for the hidden person was made. The observer also took note of handler errors and other potentially interfering effects. The mean time from each group was used for comparison to examine the amount of effect that "jute" had on the search time. Potential extraneous variables identified in the literature that affect canine scent performance (temperature, air flow and humidity) were monitored. Additionally, the jute was not

added until the second round of building searches (approximately three hours after the first search) to prevent contamination or the presence of stale scent trapped in the search area.

Results and Discussion

In the first phase of the test, we tested the hypothesis that there would be no difference in the time that it took the dogs to find the hidden suspect wearing or not wearing jute. When the suspect was hidden in an elevated space with no protective clothing, the mean search time was 127.0 seconds. When the suspect donned the protective clothing the mean time was 126.6 seconds. A simple t-test was performed to determine if the time differential was significant or not. As shown in Table 2, these results yielded a T of .013, indicating that there was no significant difference in the mean locating time of dogs when jute was or was not worn. Thus, it appears with proper training, dogs may not respond solely to jute as was anticipated.

Table 2: T-Test of Mean Location Time of Hidden Suspect

	Time	T-Value	P-Value
Mean Location Time With Jute	126.6	.013 *	.991
Mean Location Time Without Jute	127.0	-	-

*$p > .05$

The results of Phase Two also confirmed the findings of Phase One. In this test, all canines passed by the jute sleeve to acquire their target without hesitation. These results seemed inconsistent with opinions from practitioners and literature on the subject. However, all five canines passed the sleeve without hesitation. This does not suggest that handlers should dismiss this threat but rather take special precautions to alternate their training scenarios to ensure that dogs are not solely relying on the scent of this protective gear. Troy Crepeau, Venice Police Department K-9 Officer and High Liability Instructor stated, "The ramifications of faulty or improper training can be serious. Liability on the departments and the trainers can be reduced significantly by taking these kinds of factors into account through realistic training." (personal interview, January 14, 2001).

While the results of this study are limited in generalizability due to the small sample size, the implications are clear. Many of the calls in the literature concerning the potential impact of training solely with jute may be overstated. This does not mean that trainers and handlers of dogs should not be concerned with this, but rather it may not hold the weight that was once thought. In today's world of policing, where police dogs are being called upon to perform more operations, the training of these dogs and its quality is of the utmost importance. Proper training can limit the potential of injury to the officer as well as future potential liability to the department. While we were able to test the proposition that jute has a negative impact on the scent discrimination ability of the canine, this is not the final word. Additional research is needed. Tests need to be expanded to include different breeds of dogs, in different climates, under different meteorological conditions, and dogs trained using different methods.

If there is one thing that we can say definitively, it is that more research needs to be conducted concerning the use of canines in police operations. At present, there is little professional or academic literature concerning the utilization of police canines. Most of the extant research has

been conducted by police officers and other practitioners with little or no methodological training. And as the police come to rely on canines more in the 21st century, there may be no need area greater than this.

References

Bryson, S. (2000). Police Dog Tactics. Calgary, Alberta Canada: Detselig Enterprises LTD.

Chapman, S. (1990). Police Dogs in North America. Springfield, IL: Charles C Thomas-Publisher.

Eden, R. (1993). K-9 Officer's Manual. Bellingham, WA: Temeron Books, Inc.

Ellis, J. & Kirchner, C. (1990). Establish and Maintain A Successful Canine Program and Effective K-9 Unit Management. Sarasota, FL: Palm Printing.

Fackrell, R. (January, 2000). Box to Building Search. Retrieved September 28, 2000 from the World Wide Web: http://www.uspcak9.com/training/boxsearch.shtml

Kalmus, H. (1955). The Discrimination by the Nose of the Dog of Individual Human Odours and in Particular the Odours of Twins. British Journal of Animal Behavior, 3 (1), 25-31.

Kirchner, C. (1979). Washington Metropolitan Police Department Canine Manual. Washington, D.C.:Washington Police Department.

Kristofeck, W. (1991). A Study of Attitudes, Knowledge and Utilization of Canine Teams by the Louisville Division of Police. Louisville, KY: University of Louisville.

O'block, R., Doeren, S., & True, N. (1979). The Benefits of Canine Squads. Journal of Police Science and Administration, 7 (2), 155-160.

Pearsall, M. & Verbruggen, H. (1982). Scent. Loveland, Colorado: Alpine Publications, Inc.

Pearsall, M. & Leedham, C. (1958). Dog Obedience Training. New York: Charles Scribner's Son's.

Remsburg, C. (1986). The Tactical Edge: Surviving High Risk Patrol. Northbrook, IL: Calibre Press.

Skalski, J. (2000). Building Searches. Retrieved September 28, 2000 from the World Wide Web: http://www.uspcak9.com/training/johnskalskibuildingsearch

United States Air Force (1973). USAF Military Working Dog Program. Washington: Department of the Air Force.

Williams, M., Johnston, J., Waggoner, L., Cicoria. (1998) Canine Substance Detection: Operational Capabilities. Institute for Biological Detection Systems.

Wolfe, M. (1991). A Study of Police Canine Search Teams. Retrieved September 20, 2000 from the World Wide Web: http://www.uspc9.com

Yarnell, D. (1998). "Keep it Simple, Stupid!": An Interview with Sgt. Don Yarnall, LAPD K9. In Starke, C (Ed.), A Dog is not a Gun (pp. 35-40). Calgary, Alberta Canada: Detselig Enterprises Ltd.

Biographical Information

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The Love Languages of Dogs
Angelica Steinker,M.Ed.

If you want your dog to respond to yourcues with lightning speed, read on. Consider that your dog, when untrained, would never consider responding to every cue you give her. This means she will not "come," "sit" or "stay" without training. If you want to train your dog, you must know what she wants. Only by knowing what she wants, can you then negotiate a win/win proposition.

Traditional training offered the dog a win/lose deal. If you do not do what I want, I will punish you or hurt you. Modern training is based on a premise of win/win. It is no longer acceptable to yank a dog or ear pinch a dog bred to retrieve. To make win/win training work for you, you really need to understand your dog. You need to know what your dog dreams of in her sleep, what dilates her pupils, and what makes her leap for joy!

So how can you determine what your dog really loves? Dog love languages are the answer! Ask any dog owner, if their dog LOVES something it is no problem to get the dog to do perform almost any task withenthusiasm and speed.

To use dog love languages in your training just read the following descriptions and pick your dog's love language. Remember that dog love languages are just like dogs—they reflect the individuality of each dog's personality. That means that while your dog may have more than one love language, there is usually one that she really likes to speak.

Food Love Language
This love language is quite common and most dogs speak this language. However,some dogs LOVE food over anything. Training a dog that speaks the food love language is simple; you use lots of food for rewards. The better the performance, the bigger the reward, always keeping in mind that you want to be unpredictable, like a slot machine. There are many dialects of this love language: liver, chicken, hot dog,and cheese are a few that come to mind.

Rodent Love Language
Some dogs are hugely motivated to catch and kill things. This could include your favorite bathroom slipper, the remote control, or small furry animals. Motivating the dog that speaks this language requires a little more creativity. First, one must find the rodent substitute that is most desirable to the dog. This is necessary, since spending the rest of your life with a small rodent in your pocket could

be uncomfortable. Consider the following options: a squeaky toy, a stuffed animal, a stuffed animal tied to a string, or make your own fake rodent by stuffing food in a sock. The way to use the fake rodent is simple: place it in your pocket hidden from view; when your dog gives you a great response, pull out the fake rodent for a nice long tugging session. Remember to teach the dog that something good happens when he gives the fake rodent back to you, like you give him a food treat or you immediately start another great tugging session.

Physical Touch and Praise Love Language

We have all run into the occasional dog that will do absolutely ANYTHING for a belly rub and a kind word from his owner. The dog that speaks the physical touch and praise love language is highly motivated by being scratched, stroked, rubbed and praised by you. Using this in your training is easy. The great thing about the physical touch and praise love language is that no matter how much you use it your dog will not get fat. Food rewards last for only split seconds as the dog, who thinks he is starving to death, gulps the treat down, barely tasting it. That reward only lasted a moment, but with physical touch and praise, you can make the reward last for minutes.

Ball Love Language

Have you ever seen a dog's eyes glaze at the sight of a tennis ball? Owners of herding breeds are very familiar with "ball obsession syndrome" (BOS). Owners of BOS dogs have witnessed their dogs staring for hours at a tennis ball, they have come home to find their huge English Shepherd wedged under the couch because his ball rolled under it, and some have even reported sleepless nights because their dog kept gently placing the ball on their heads. If you want to use the ball love language to train your dog, you must be the keeper of all the balls. In order to harness the power of the ball, you must be in control of all the balls in the dog's universe. Only then will you be able to move small mountains or redirect some waterways with the help of your highly motivated BOS dog.

But, wait, you have read about all of these love languages and your dog does not speak any of them? Do not give up. Get creative. It only takes time and effort to learn to speak your dog's love language. With some detective work, you will be able to find the love languages and dialects that your dog speaks!

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Biographical Information

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How Clicker Training Helped Save The Life of an Aggressive Border Collie
by Renee Premaza

I'd like to tell you the story of my relationship with a 14-month-old Border Collie. This dog was used to having his own way in life; he was controlling/aggressive and extremely hand-shy when I adopted him, and if it weren't for the use of a clicker, I am positive he would not be alive today.

Border Collie, Jack

In March of 1999, a friend called me and asked if I'd be interested in adopting her 14-month-old Border Collie, Jack, and bringing him to our farm to live. She complained that the dog was nipping and snapping at her children, and if we couldn't take him, she was going to bring the dog back to the shelter where she had originally gotten him as a 3-month-old puppy. I remember visiting with these people several times and noticed the dog had been chained outside without any water. I also remember one occasion when my friend's 11- year old daughter smacked Jack on his head because he wasn't listening to her commands. I tried to educate the girl about hitting the dog, but she ignored me, and my friend did not support my attempts to teach her child proper dog handling. Several times we were invited to dinner, and when we asked where the dog was, my friend replied that he was in his crate down the basement so he wouldn't bug us. I wasn't surprised to learn that they were having difficulties with him.

I went to her house to get re-acquainted with Jack, since I had not seen him for a long time. He barked and growled at me when I knocked on the door, and I was handed a doggy-bone to give him. Jack accepted the bone, and allowed me into the house. After he settled down a bit, I suggested we go for a walk, and he behaved very well. When we came back, I sat down on their front steps, and the dog sat on the same step with me. I put my arm around him and he sniffed my face, my ear, and my jacket. He was behaving very sweetly. Thinking back on this, I was extremely lucky not to have gotten my face bitten off. We went into the house, and I initiated some play with Jack by getting one of his toys and throwing it to him. This is when he showed me that he was an object guarder. He didn't bite me, but he snapped at me when I reached for the toy. This made me nervous, as I'd never seen a dog do this before. I told my friend that I needed to discuss the dog with my husband and we'd let her know our decision soon.

Two weeks later, my friend and her family came for a visit, and they brought Jack down with them. When they left that evening, Jack remained at the farm and became a permanent member of my own family. It has been a very challenging time for both of us. We've both gotten an extreme education, and we've both experienced very good days and very trying days. As more time goes by, I realize that this dog is the best gift anyone could have given me. I am grateful to have been given the opportunity to save his life, and to have reaped so many rewards as a result of his being here.

During the first few months, I busied myself taking Jack to obedience and agility classes. This kept him exercised and he was showing some improvements in his general attitude. Unfortunately, this was not enough to curtail the nipping he was doing. In June, things got very serious; Jack bit someone's hand causing 4 puncture wounds. I had to make a decision. My husband and I discussed euthanasia. I spoke to my trainer and she agreed to start working with Jack privately on a one-to-one basis.

For the next 4 months, Jack and I attended private sessions with our Trainer/Behaviorist, 2-3 times/week. Even though these classes were intense, Jack always looked forward to going, and his bond with his trainer, Barbara, got stronger with each session. Every time we went to class, I had to put a basket muzzle on the dog to prevent him from biting. Barbara worked with the clicker to try and help Jack to accept physical handling. Because the muzzle was like a metal basket, I was able to give him treats through the side of the muzzle. Barbara did all the clicking, and I did all the treating. I learned that the timing of the clicks is critical.

The Training Begins

Here is a list of the things that Jack could not tolerate. If I or anyone else went to do anything with him that involved these things, he immediately nipped:

1. Grabbing him by the collar
2. Leaning over him
3. Brushing him anywhere on his body
4. Clipping toenails
5. Reaching over his head
6. Cleaning/medicating his ears
7. Taking anything away from him that he had in his possession
8. Petting him after he was already down for the night.
9. Making eye contact
10. Looking at him while he ate a rawhide or other recreational bone
11. Being at the vet's office
12. Getting needles
13. Reaching into his crate while he was inside
14. Touching his genital area

Another tool that we used, besides the clicker, is called an "Assess-a-Hand". This is a plastic form which looks just like a human arm/hand and is dressed with a sleeve. It has a handle attached to it so the trainer can hold onto it while her own hand remains at a safe distance if the dog were to bite. So, during the first few lessons, Barbara worked with the Assess-a-Hand in order to desensitize Jack to being touched all over his body. She concentrated much of her handling around the collar area. If Jack did not respond aggressively to the hand being on his neck, she immediately clicked him and I fed him a tiny treat through the side of his muzzle. It didn't take Jack long to realize he was working for clicks. Very slowly, she began touching him more aggressively around his collar, clicking him anytime he showed no objection to what she was doing. Once the dog was giving us consistent behavior, Barbara upped the ante. She used the fingers on the hand and gently tugged on the collar. Now, the dog did respond with a low growl. He did not get clicked for growling, but seemed to wait for it. Barbara went one step back to a gentle tap on his neck. He was fine with that, so he earned his click and treat. This was a good place to stop the lesson. Her objective was to end any session we had on a good note, the idea being that we wanted the dog to know he succeeded, and not failed.

The next session started out as a review. Barbara began working on areas that we'd already clicked him for. Then she would begin with a newer challenge. Our second lesson was devoted solely to the collar issue. Again, she tugged on Jack's collar and immediately stopped. Jack showed no response, so Barbara instantly clicked him, and he came to me for his earned reward. She tugged at his collar several times that day and we were both very happy that the dog accepted this handling and only wanted to receive a click. The dog was actually enjoying himself. You could almost hear him thinking, "Wow, if I tolerate this stuff I get yummy treats. What a concept. I'm starting to like this stuff a bit more." I watched as Barbara put the hand in the closet. She came and sat down beside me and called Jack to her. Of course, she clicked him for that too! She put Jack in a sit/stay with his head facing in the opposite direction. She looked at me, and my heart started to pound. Barbara reached under Jack's collar with her bare hand and tugged on it. Jack just sat there, but his eyes were trying to look back toward her. She did not click him because he'd done this successfully many times before. She then gently moved the collar around the dog's neck. No response! A quick click and treat. We praised him verbally, clapped our hands and ended the lesson for that day. After about

5 sessions, both Barbara and I were able to reach under Jack's collar, tug at it, and twist it around his neck.

This is pretty much how it went with the rest of his known triggers. Again, using the Assess-a-Hand, we'd start out slowly desensitizing him to being touched with the hand and then we'd end with touching him with our own hands. Jack was a pro with earning his clicks. I found it very interesting that there were some lessons where he showed almost no interest in coming to me for a treat (although I always gave him one). He was so intent on hearing that click, that that was enough reward for him to offer up his very best behavior.

I was relieved that Jack was more willing now to be groomed. In the beginning, I could not use a groomer's comb or the harder bristles of any brush. I followed through with using the clicker at home when doing these things, since it was proving very successful. Also, because he does have allergies, it's necessary to medicate his ears daily. I was able to desensitize him myself to this just by clicking him and giving him a treat anytime I touched his ears. Finally, my hands were beginning to heal from all the nipping I had gotten. I was feeling much more optimistic about Jack's future. Both my husband and I noticed that the dog's eyes were softening. Border Collies do have a tendency to stare, but Jack's way of looking at us was to glare. What we were beginning to see in his eyes looked more like the way puppies look at their owners; we believed we were seeing trust in his face. We also were happy to see that he was beginning to lick us. He had not done this prior to working with Barbara and her clicker.

Things were not always so cut and dried in his training. One day, Barbara put a baby gate between her office and the room in which we worked with Jack. Her phone rang, and she went to lift her leg over the baby gate to go into her office, and Jack went crazy! He ran over to her and would have bitten her leg multiple times had he not been wearing the muzzle! This was the first time we'd seen him behave so active in his defensiveness. She tested him several times on this, and each time she lifted her leg to go over the gate, the dog reacted violently. She and I looked at each other and silently asked, "So what is this?" She even had me go over the gate, but the dog did not show aggression towards me. Two days later, Jack and I headed for our class, and as soon as I entered the room, I noticed the baby gate was back in position; the gate was a main focus of our attention for at least 2 months. Again, by desensitizing him, we were able to elicit a conditioned response from the dog. Barbara put her foot over the gate, Jack ran towards her barking, but learned not to touch her, then she'd click him, and he knew to run right over to me for a treat. He never got to the point where he wouldn't react at all. Despite this neurotic behavior, when people lean over my fence to pet the dog, he has never reacted in this violent manner. Possibly Jack thought that when someone lifted a leg over the gate, they were going to kick him? I don't think we'll ever really know why this caused such a problem.

During this very trying time, Jack was behaving toward strangers by snarling and growling at them. I decided to take the bull by the horns, and began walking him in a very public park. I went armed with lots of treats and my ever-present clicker. I cannot tell you how stressful our first walk in the park was! I came home with a splitting headache, and Jack slept for several hours. The first park I chose to take him to was beautifully landscaped with a huge duck pond in the center, surrounded by a narrow path. I went at the worst possible time of the day, which was lunch hour on a weekday. Women were wheeling strollers, men were jogging, and children were running around the pond excitedly watching the ducks. What seemed like a 10-mile walk was really only one mile. As soon as we began walking, people were walking toward us and behind us. I heard Jack growling under

his breath when people were approaching us, so I pulled him off to the side of the path and made him watch people walk by in front of us. He seemed a little calmer doing this, so as long as he was not growling or showing any reaction, I clicked my clicker and gave him slices of homemade pot roast. We proceeded farther around the pond area, and I continued to pull Jack off to the side, clicked and treated him. About halfway around, I sat down on a vacant bench and let the dog just have a look at all of these people. I put him in a down-stay and continued clicking and treating him each time any individual walked by. I did see some progress, but I decided to leave at this point.

The next week, I discovered another park to take him to. But this park has an extremely wide path to walk, and is also surrounded by a huge duck pond. Jack's reactions during this second walk were fascinating. We started out and initially he was a little tense. I heard him doing some huffing as we continued our walk. Little by little he stopped being so tense, and I was clicking and treating him for everyone that passed by us because he wasn't reacting to any of them. We were able to stay at this park for well over an hour. Right before I was ready to leave, I looked down at my dog while somebody approached to pass by us. Jack was drooling! I think Dr. Pavlov would have found this very interesting; I know I certainly did!

I am astounded, when I look back almost two years ago, at the difference in my dog. I adopted an aggressively assertive dog who figured he could control humans by biting them, he could keep strangers away by showing his teeth and growling, and he was extremely tense almost all of the time. He even had nightmares on a regular basis. Jack has become a very loving dog who shows affection readily. He has gotten more comfortable with being around humans, including the man at the gas station who must come to the window to get paid. Just last week, he allowed a friend of mine to sit in the passenger seat of my car while we went on an errand. He was very friendly towards this person and allowed him to pet him without showing any discomfort whatsoever. I considered this as a huge milestone. Whenever I am in doubt as to how Jack will react to a situation, I always bring my clicker. It is like having an insurance policy right in your pocket. It tells the dog when he is behaving appropriately, so he responds by trying to please you. We are currently in the process of trying to socialize him with other dogs. He is not aggressive with them, but does not yet know the proper way of saying hello. He is in their face immediately and wants to act a bit like a bully, so we have a lot of work to do there.

Jack retained most of what he learned from clicker training. However, he does still have an issue with his collar. I seem to be the only person he will allow to hold his collar, but he still doesn't like it, and will act a bit antsy if I have to hold onto it for any length of time. So, unfortunately, this is one area he was not able to generalize what he learned. Although he's doing beautifully, we still have some work to do. Since his sessions with Barbara almost a year and a half ago, he's had two incidents of aggression, both occurring last summer. One incident took place with his sheep herding trainer who tried to grab his collar and got nipped on the hand, and the other resulted when my neighbor tried to calm the dog by poking his hand through our fence after a strange dog came up our driveway. My neighbor also got his finger nipped. Rome wasn't built in a day. We will just keep keeping on.

Biographical Information

Renee Premaza lives in Berlin, New Jersey with her husband, Tom. They run a small horse boarding operation on their farm. Since adopting Jack, Renee has been studying canine behavior, assisting in training classes at her trainer's facility, volunteering at her local animal shelter, and she is also training dogs on her own for beginner obedience and manners. Her major accomplishment is the

creation of a talk radio program, called Wednesday in the Doghouse. She provides educational information to the listening public by interviewing experts who are knowledgeable in all aspects of canine related topics. Her dream is to teach adult classes to the average dog owner geared toward helping them to understand their own dogs.

Understanding Learned Helplessness
by Sally Treat, MS

Learned helplessness is a phenomenon first described by Seligman (1975; Seligman et al. 1971 [not seen], cited in Lindsay 2000). Groups of dogs were subjected to continuous electrical shock; one group of dogs was taught how to control the shock but the other group was not. The dogs were then (24 hours later) placed on a shock grid that they could easily escape by jumping over a low hurdle. Those dogs that had not received the uncontrollable shock quickly escaped, but the other dogs simply "gave up" and sat on the grid (Meyers 1998, p. 446 [not seen]; cited in www.inspirationcenter.net/ mindbody/control.html). Since the original experiment, several other species (rats, cats, humans) have been tested with a variety of stressors (noise, crowding, cold, defeat, restraint, pain). Learned helplessness appears to be a common response to conditions of inescapable stress.

There are some different hypotheses as to what is actually occurring in learned helplessness (LH). Seligman and his co-workers concluded that the LH dogs have acquired a cognitive deficit as the result of learning that outcomes are not contingent upon behavior. The cognitive deficit is a mental block that prevents the LH dogs from understanding that escape is possible in the second phase of the experiment. Furthermore, the LH animal has lost motivation to attempt new behaviors. This hypothesis is not universally accepted because it postulates that animals are capable of having ideas, and that those ideas are not tied to specific settings. Research in humans has provided the most support for this hypothesis (www. psychology.uiowa.edu/ Classes/31209/learned.html).

Other views of learned helplessness hold that it results in physiological changes that result in analgesia (decreased sensation of pain or discomfort). That is, prolonged unavoidable exposure to stress causes physiological changes that increase the animal's pain threshold so that it is better able to tolerate stress. Experiments with rats have shown that in some cases there is a temporary depletion of neurotransmitters that could account for transient learned helplessness, but in healthy animals the effect would not be expected to be prolonged. Other manipulative work in rats shows that neurotransmitter depletion does play a key role in LH triggered by sudden stressors (www.psychology.uiowa. edu/Classes/31209/learned.html).

Dogs who have been subjected to unpredictable episodes of punishment often exhibit symptoms of learned helplessness. Lindsay (2000, p. 254) writes that such dogs "tend to become overly cautious, nervous, and insular." Because these dogs cannot control or predict adverse events that occur frequently, they seem to become "pain insensitive," "extremely stubborn," "passively resistant and withdrawn," "mentally paralyzed," and are "frequently stiff with muscular tension" (Lindsay 2000, p. 254) . Both Lindsay and Reid (pers. comm.) note the difficulty of rehabilitating such dogs. Reid points out that because consequences, whether reinforcing or punitive, do not affect these dogs normally, it can be very difficult to convince them that they can, in fact, control and predict events. In other words, these dogs have a very difficult time in gaining some stability and building

confidence. Lindsay (p. 254) says that these dogs often refuse food, reject play, and do not respond to petting; a dog who behaves in this manner will be a challenge to train.

Seligman's experiments also showed that learned helplessness had "dramatic negative and interfering effects on post-shock learning" (Lindsay 2001, p. 343). Other consequences included the inability to recover from LH after repeated episodes of exposure to unavoidable stress (recovery did occur after a single episode); lowered aggressiveness; and loss of appetite. Whether there is also development of a "negative cognitive set" (Lindsay 2001, p. 343) in dogs with LH remains to be convincingly shown, although the ability to learn does seem to be adversely affected.

Dogs who exhibit symptoms of learned helplessness have probably spent a relatively long period of time in a highly stressful environment. Dogs who have been rescued from abusive situations are likely candidates, as are dogs that have been confined in poor quality shelters, which often have miserable kennel facilities. Because such dogs may appear "quiet," they may be adopted by unsuspecting, well-intentioned owners who later find out that their dog seems incapable of being trained, or even of having fun. These dogs, and their owners, will need concentrated efforts to counteract the effects of learned helplessness; patience and persistence, and the use of positive training methods, will be essential. Routine will be very important, so that the dog can learn to predict pleasant events. Clicker training would also be valuable because it rapidly establishes a relationship between a neutral stimulus and a yummy reward--another element of consistency that is so necessary for these dogs.

Literature Cited

Lindsay SR. 2000. Handbook of Applied Dog Behavior and Training. Vol. 1: Adaptation and Learning. Iowa State Univ. Press; 410 pp.
Lindsay SR. 2001. Handbook of Applied Dog Behavior and Training. Vol. 2: Etiology and Assessment of Behavior Problems. Iowa State Univ. Press; 328 pp.

Biographical Information

Sally is a dog trainer in Tampa, Florida. She's been working with Angelica Steinker (Courteous Canine, Inc.) for 3 years, teaching puppy classes in obedience and agility. Sally also supervises the weekly Puppy Play Group. She is an APDT Certified Pet Dog Trainer and has received her Dog Behavior and Learning Theory certificate from ACBT. Her two dogs are Suzy, a Jack Russell terrier largely responsible for Sally's acquisition phase of the dog training learning curve, and Toby, a miniature Australian Shepherd who is helping Sally with fluency, generalization and maintenance. When not working with dogs, Sally is a self-employed editor and also teaches microbiology at a local community college.