

BEHAVIOR OF DOGS

The following text is taken from the U.S. Customs training manual. We won't discuss the training involved in narcotics work, but I think the behavioral aspects can apply to any type of canine training.

The behavior of a dog is the result of many factors. Some of these may include heredity, natural instinct, basic senses, past experiences and basic drives. All of these factors will contribute in one way or another to successful training.

In addition to recognizing the factors influencing behavior, various types of behavior dogs exhibit must be considered. The behavior dogs demonstrate can be discussed using many of the same terms used in referring to human behavior.

You must remember, dogs like humans, are individually different. This is an extremely important aspect to consider in training, because a method that proves successful for one dog may not for another. All factors governing a dog's behavior must be considered and each closely analyzed in order to properly apply methods of training at the correct time.

Basically, the majority of canine training is conducted with the praise versus punishment method. However, the concept of training that is employed by Customs is directed primarily toward channeling the dog's basic behavioral patterns and drives to achieve the desired result. Therefore, the importance of studying canine behavioral patterns and understanding how a dog's mind functions is of greater importance than most dog trainers realize. Failure to appreciate this may result in a confused animal and a frustrated trainer, when, in fact, the trainer is at fault through his own lack of understanding. Full understanding of the function of the dog's mind and knowledge of behavioral patterns will not only lead to a better trained animal, but will enhance progression through avoidance of commonly encountered training errors.

Behavior is never entirely inherited or acquired, but is developed under the combined influences of heredity and environment. The object of socialization of a dog is to produce a well-balanced and well-adjusted animal. The ideal dog to train for narcotic detection is intelligent, self-assured, demonstrates a frantic desire to retrieve, and displays a high degree of boldness. In addition, the animal must be both physically and mentally acceptable. Normally, a dog should not be entered into a full narcotic detection training program until the age of one year.

1. The Basis of Behavior

A fairly popular notion which demands close scrutiny in a discussion of behavior is that "dogs don't think, they merely behave." To picture the dog as a hopelessly stereotyped behavioral robot, reacting as automatic as an eye-blink, is as erroneous as the other extreme view--that a dog has the ability to solve complicated problems.

Thinking is a nervous process defined as "to form or have in the mind." Within this definition, dogs would seem to have the ability to think, even if not in the elaborate manner of humans. An example of thinking or reasoning power concerns a German shepherd who loved to kill rabbits. The animal would proudly bring home the mutilated rabbits to show them off to his owner. The owner was never pleased with his dog's "accomplishment" and told him so each time the dog arrived home with his prey (but never sternly). The owner decided he would have to take more drastic measures to break the habit, and the next time the dog brought home a mutilated rabbit the owner reprimanded the dog severely. The next time the dog killed a rabbit

he was found burying it, trying to hide it. Did the dog know he would be punished if he came home with the dead rabbit? Was this reasoning power?

It has been determined that a dog's mind functions 80% of the time by instinct and 20% of the time by knowledge acquired during life. The critical periods which dogs begin to develop mentally starts after the first 21 days of the dog's life.

During the first 21 days the mental capacity of the puppy is zero. It reacts only to the necessity for warmth, food, sleep and mother. The second critical period is from the 21st to the 28th day. although it is totally dependent upon its mother, the puppy begins to use its senses during this week when emotional and social stresses have their greatest impact. Between the 28th and 49th days it begins to react to the surroundings. It ventures away from the litter to explore the adjacent surroundings. On the 28th day the brain of the puppy comes alive as if a switch had been turned on. The brain of the puppy becomes active and he starts to function with an awareness of his environment. During the three weeks to the 49th day the nervous system and brain develop to the capacity of a adult form, although the animal is physically immature. At this time it is critically important that the puppy be taken from the litter by the end of this 7-week period.

Some training should start at the 7-week point and extend to the 12th week. The human now takes the place of the mother and the bond of attachment is established that has permanent effect on the dog. Human contact during this period is the key to the dog's future prospects.

A critical amount of variety in early experience is absolutely necessary if dogs are to develop their full potential. Serious deficits (such as, nerve blindness) can develop in the nervous system because of insufficient stimulation from the environment. Mature dogs raised in kennels, cages or similar stimulus-deprived environments often are easily startled by sound and touch in strange surroundings. Those which have been mainly house or yard pets as well as kennel dogs may overreact to novel visual objects and persons. Such dogs do not normally possess the criteria for selection in narcotic detection training.

In their natural state, pups gain a fairly broad degree of experience with their physical environment--the earth, trees, twigs, etc. However, social experiences were clear-cut and well-defined. They identified pack members as such and all other animals fell into the category of outsiders. These outsiders were further classified as prey (to be sought and killed when hungry), predators (to be avoided or fought against), neutrals (to be tolerated or ignored) or territorial rivals (such as members of their own species or other predators).

This is not the case with the urban pet dog, which is a four-legged member of a two-legged pack. Predatory behavior is stifled by unearned daily feedings from owners. The dog's defensive mechanisms against outsiders are strained to discriminative limits by artificial standards. The pet is expected to accept family friends, but the burglar is to be somehow perceived as such and repulsed. For the most part, the dog's owners are inconsistent in their day-to-day activities as well as in their treatment of the pet. When contrasted with the stable activities and social relationships existing in wild dog packs, it is no wonder that a conflict exists between the dog's naturally simplistic social behavioral tendencies and its domestic environment.

Since cooperative pack behavior is a natural pattern in dogs, selection for social adaptation contributes heavily to the wild dog's genetic makeup. Troublemakers are driven away from the pack and rarely produce offspring. Not so in the domestic dog, especially the purebred which is more often bred for the ability to win ribbons and trophies than for purely physical attributes,

or to respond to a single handler in a stereotyped obedience routine.

Now that we have generally discussed the basis of behavior, you will find that it is indeed a complex series of events which shape the dog's adult behavior prior to the animal entering into our training program. Therefore, it is necessary to study what is inherited and what is learned, and to examine some of the general principles of learning that are relevant to the shaping of a dog's behavior into desirable patterns that will be channeled throughout the training course.

Research has identified several adaptive patterns of behavior in the dog, all of which are based on instinctive behavior. However, as we discuss instinctive behavior we do not mean it to have the same automatic totally unlearned quality of instinct, for example, as insects possess. Dogs are much higher on the evolutionary scale and, as it is with humans, have all but the very earliest behavior resulting from what is inherited and environmental conditioning which means learning is extremely complex and involved.

A review of these behavior patterns will prove beneficial in your ability to better understand the dog.

a. Investigative Behavior

Investigative behavior is undoubtedly one of the most prominent types of behavior seen in the dog. It is also one of the most important factors that must be considered when selecting a dog for narcotic detection training. The dog that possesses a high degree of investigative behavior is very inquisitive and has a desire to examine objects very closely, therefore he will normally excel very fast when teaching him to hunt for narcotic odors. There are several observable signs to recognize investigative behavior in dogs. One of the most characteristic activities of dogs when kenneled is to trot around, investigation objects with the nose and eyes and stooping to look and listen whenever there is a sound. Other characteristics of dog's investigative behavior include:

- (1.) Walking or running with nose to ground, sniffing.
- (2.) Head in air sniffing, may run from side to side.
- (3.) Sniffing anal and/or genital region.
- (4.) Sniffing nose or face of another dog.
- (5.) Head raised, ears erect (listening and looking).
- (6.) Nosing and sniffing urine or feces.
- (7.) Crawling forward, moving head from side to side, sniffing.

b. Allelomimetic Behavior

The tendency to do what the other animal is doing is Allelomimetic behavior. This behavior appears to be fairly strong in dogs, particularly in half-grown puppies. It is principally seen in connection with traveling from place to place or when a common attack is made on prey or a strange dog. Investigation tends to conflict with it in older animals, causing them to separate.

Other signs of this behavior are:

- (1.) Walking or running together.
- (2.) Lying down, sleeping and getting up together.
- (3.) Howling in unison and howling when solitary (like human loneliness).

c. Epimeletic Behavior

The giving of care or attention is highly developed in dogs along certain special lines. The tendency toward nest building is rather weak. Most dogs make use of shelters already provided, or enlarge holes already made. Grooming is likewise rather poorly developed, consisting mostly of the cleaning of very young puppies by the mother. Adults scratch themselves, but rarely lick their fur, and there is almost never mutual grooming between adults. Feeding the young, on the other hand, is highly developed. The mothers not only nurse their young but may vomit food which they have chewed and swallowed themselves. Under the proper feeding conditions, adults of both sexes may provide food for the young and the habit of burying or catching food is frequently seen.

The behavior pattern of the dog to use its feet to dig in the earth (such as burying food) is a very important factor that is channeled into use during narcotic detection training. Through this drive, we are able to focus the dog's desire to use its feet, by digging and scratching, at the location of concealment when responding to a narcotic odor.

d. Et-Epimeletic Behavior

Attention seeking behavior is also prominently developed and prolonged from early infancy. This behavior seems necessary for puppies and is certainly indulged in among adult dogs and between dogs and their human companions. It is through this pattern of behavior that you are able to establish a close bond of relationship with the dog, which is necessary if training is to be successful.

Signs of this behavior are:

- (1) Whining.
- (2) Yelping.
- (3) Tail wagging.
- (4) Licking face (or hands) of person.
- (5) Touching with paws.

e. Eliminative Behavior.

These patterns of behavior appear to have great social significance in dogs, and it is possible that they were originally connected with territoriality. Both sexes have anal scent glands and may scratch the ground after defecation. The micturition patterns differ in males and females. Apparently these reactions are primarily elicited by strange animals. Signs of this behavior are:

- (1) Male:

a-Micturition with all four legs extended.

b-Micturition with lifting of hind leg, usually in places used by other males.

(2) Female:

Micturition in squatting position.

(3) Both sexes:

a-Defecation.

b-Scratching ground with all four feet following defecation.

c-Defecation and urination in places previously used.

f. Conflict or Agonistic Behavior.

As may be expected in a predatory animal, this sort of behavior is prominent. Fighting or its alternated pattern of running away occurs rather frequently. Playful fighting is very common in young puppies. There is a tendency to develop dominance under certain conditions, together with characteristic attitudes of dominant and subordinate animals. On the other hand, a well coordinated group of familiar animals may be strikingly peaceful and cooperative. Signs of agonistic behavior are:

(1) Fighting and Predation:

Chasing, biting, snapping teeth, pawing, snarling, growling, barking, wagging tip of tail, pouncing or springing, tossing game into air and herding.

(2) Defense and Escape Reactions:

Sitting, crouching, running away, yelping and showing teeth, tail between legs, rolling on back--pawing--and extending legs.

(3) Attitudes of Dominance:

Standing over dog on the ground--growling, standing with tail erect.

(4) Attitudes of Subordination:

Allowing dominant animal to place feet on back, tail down, tail between legs, crouching, ears depressed, roll on back--legs extended--tail between legs.

g. Sexual Behavior

The dog exhibits two interesting specializations of sexual behavior. One is the comparatively long period of heat in the female, usually including a week or more of preliminary behavior and approximately two weeks of receptivity. The other is the copulatory tie, as a result of which the male and female are attached together. The males can be sexually aroused at any time, but react much more vigorously to specific stimuli from the female in heat. Signs of this behavior are:

(1) Male:

a-Running with female.

- b-Licking female's genitalia.
- c-Forepaws extended, body thrown back on haunches, head to one side.
- d-Mounting - clasping - pelvic thrusts and copulatory tie.

(2) Female:

- a-Running with male.
- b-Forepaws extending, body thrown back on haunches.
- c-Mounting - clasping - pelvic thrusts.
- d-Standing for dog - tail to one side.

h. Ingestive Behavior

There is nothing particularly striking about the ingestive behavior except the tendency toward rapid eating and the ability to go long periods without food and water. Signs of ingestive behavior are:

- (1) Lapping, tail out and down from body.
- (2) Chewing and swallowing, tail in same position.
- (3) Gnawing, holding food with paws.
- (4) Eating grass.
- (5) Sucking, pushing with head. Alternately pushing with forepaws, hind feet pushing, tail out and down.

i Contactual Behavior

The tendency to maintain bodily contact with other animals is important in puppies which need it to maintain warmth, but this seems relatively less important in adult dogs. Signs of this behavior are:

- (1) Lying close together in a heap.
- (2) Curling up.

There are other miscellaneous motor activities such as: twitching while asleep, stretching, yawning, and rolling over.

Domestication of the dog has resulted in a great variety of shapes and sizes in the animal and a great difference in the ability of the animal to learn certain kinds of behavior. Some breeds find it very easy to pursue prey by sight, other breeds find this virtually impossible and trail prey almost exclusively by sense of smell. Such differences in abilities in breeds has made it pointless to ask how intelligent a particular breed is. The proper question should be what specific abilities does the breed have that will be of benefit to accomplish training objectives.

The principle of rewarding desired behavior is the basic way that dog trainers shape the behavior of dogs. The desired behavior has to be brought about some way, whether by helping the dog oneself, or waiting for the behavior to happen more or less at random, rapidly rewarding it. The procedure of course requires considerable patience and skill, as the reward, at least initially, must follow the desired behavior very rapidly indeed, otherwise one is rewarding not the desired but some other piece of behavior. Research with other animals has suggested that the timing of reward or reinforcement and the schedule of it, how many trials are rewarded and how many are not rewarded, is very important in establishing stable patterns of learned behavior.

We could not leave learning theory without mentioning negative reinforcement or punishment. Just as animals learn to continue behavior which is rewarded, so they learn to inhibit behavior that is punished. Note however, that punished behavior is not lost, it is only inhibited. Every dog trainer knows that some punishment is needed in the training of dogs. Watching a mother dog, one tends to see variable signals of punishment and reward, with an undesirable act such as a too sharp nip on the ear being followed by hasty punishment and then comfort such as licking. With the use of punishment even more than with the use of positive reward, it is most essential that the punishment be attached to the undesirable behavior. If the dog is punished five minutes later for a misdemeanor, only confusion and bewilderment and possibly generalized fear can follow. In general, punishment is best used judiciously, sparingly, and in a context of reward for desired behavior.

The domestic dog can, and does, learn a variety of behaviors, some of which we desire, some not. Training methods will not be successful unless you are the pack leader, confident, secure, and communicate well with your dog. He needs to know what you want of him and you must understand his responses.