

Domestication and Behavior of Dogs

Our topics for this week are dog:

- Domestication
- Body language
- Vocal communications
- Diverse behavior by breed

Domestication of Dogs

The dog's partnership with humans has existed for at least 14,000 years. Dogs have been domesticated longer than any other species. They have served as camp sentries, game hunting scouts, a source of thermal warmth, guardian of humans and livestock, scavengers, beasts of burden, trackers, and in a few cultures, a source of food.

Domestic dogs are a subspecies of the Eurasian gray wolf (*Canis lupus*) and were thought to have evolved from the wolf in the Middle East about 100,000 years ago, but more recent evidence indicates they originally came from south of the Yangtze River in Asia. Its Latin name is *Canis lupus familiaris*, "the familiar wolf."

Dogs are not naturally indigenous to the western hemisphere, but were brought to the Americas by people from eastern Siberia across the Bering Strait land bridge to what is now Alaska about 14,000 years ago. Dogs are in more households as pets in the United States than any other animal.

The DNA of the domestic dog is nearly 99% identical to that of the gray wolf, but due to selective breeding by humans, it has more diverse body shapes, sizes, and dispositions than any other species. The dog has an unusually large number of chromosomes: 78 compared to 46 for humans and 38 for cats, and a short gestation period (63 days) These characteristics have allowed relatively rapid selective breeding for specific traits. Despite the diversity among dog breeds, 99.8% of the DNA is identical among all breeds.

The Kennel Club was formed in England in 1873 and was the first that formally recognized breeds of dogs. The American Kennel Club was formed 11 years later. Most breeds of dogs recognized since 1900 have been selectively bred just on their appearance, not their service.

The proper names for male dogs are **dogs**. Females are **bitches**, and young dogs are **puppies**.

Natural Behavior of Dogs

The great majority of domestic dogs are highly social. If feral, they seek to form packs of two to five dogs and hunt in groups as do wolves. If a choice exists, they prefer to group with dogs of their same breed and same family. Although domestic dogs evolved from the gray wolf, dogs have been selectively bred and amplified into what humans have thought were beneficial qualities and have lost what were considered undesirable behaviors of wolves.

Close extrapolation of wolf behavior studies to dogs may be without merit since some studies have been done on captive wolves. Captive wolves socialize as packs rather than wild

wolves which center their relationships around a family. Wolf behavior is based on family structures. Social rank and behavior are determined early in life and are not reflective of the interactions of adult dogs with strange, unrelated adult dogs or other species. For example, wolves will play fight as littermate pups to determine social rank. Strange adult dogs may fight to the death of an opponent to establish social rank.

All higher animals, including dogs, have a social strata of dominance and submission. Dominance hierarchy in dogs is a complex ranking system which serves to maintain order, reduce conflicts, and promote cooperation within a family unit (pack). An effective socially dominant relationship to dogs must be based on respect gained from controlling resources (food, treats) and movement (being on a leash, in or out of a cage or kennel), and not fear.

Dogs are protective of their territory which radiates from a home. If feral dogs do not find human structures to serve as a home, they will dig to make a den. The den provides a place of security and protection from the weather and a hiding place for surplus food. Territorial aggression can supercede other factors and cause small dogs to be aggressive to large dogs in protection of what the small dog considers its property. Their behavior is markedly different when they are in their own perceived territory and when they are in a strange territory. They are embolden and more aggressive in their own territory, have others (a “pack”) with them, and have a known escape route.

Leadership in a pack is not based on fighting that may lead to serious injury, except as a last resort. Leaders control resources and the movement of others, including breaking up squabbles among pack members.

Dogs watch and respond to master’s face and body language as much as, or more, than their master’s voice. Some dogs are so sensitive to human body language that they can appear to read minds.

Body Language of Dogs

Communication among dogs involves body language, olfaction (feces, urine, anal glands and other glands), and vocalization. Dogs have highly expressive body language. The body language of dogs that communicates dominance is a direct stare with ears forward and tail up. Midline hair over shoulders and neck is raised, and the lips pulled up and back. A dog’s manner of approaching another dog or a human presumed to be less dominant is direct. A submissive approach is to approach the other animal’s side. To establish social dominance over another dog, a dog will jockey for a position above another dog by putting its head or forelegs on the neck or shoulder of a lower-ranking dog. Because of this, a handler lowering a hand onto a dog’s head is perceived as attempting to dominate the dog. It may also circle and sniff with growls if the other dog moves. Territorial marking, such as urinating on objects or where other dogs have urinated, is a dominance sign.

An aggressive dog will stare at their opponent with lowered upper eyelids. Its lips will be drawn back and the mouth is held open. Ears are pointed forward and tail may slowly wag.

Unlike dogs with fear aggression, dominance aggressive dogs will not hesitate to bite at a handler’s face. Dominance aggressiveness is characterized by calculated actions while fear aggression is reactionary.

Submissive dogs demonstrate a lack of direct eye contact with their ears back and their tail held low. A submissive dog may freeze in place, or roll on its side and raise a high leg to expose its belly. Muzzle or face licking another dog is a submissive gesture. Some may lick the

air as if face licking. Profound submission may lead to a submissive pose along with urination. If a dog approaches in a submissive manner, its body is curved toward the other animal or a person and the tail wags. Fearfulness is conveyed by repeated lip licking or yawning. Attempts to hide will occur, when possible. If hiding is not possible, cowering in a corner is common with the head held at shoulder level, or lower. A fearful dog with its head down may glance upward with its eyes at whatever it considers a threat. The ears are held back and flat as possible next to the head. The dog may shiver or shake and lean away from the threat and snarl with its teeth exposed. The neck is held rigid and the tail is tucked down and between its legs. Freezing in place is common just before the dog attempts to bite at the threat.

Olfactory communication is important among dogs. Non-fearful dogs approach new dogs and will immediately attempt to sniff the other dog's anogenital region.

Dogs intending play will begin their interaction with another dog by assuming a *play bow* posture, i.e., rocking back on hindlegs while lowering their front end by stretching forward with their front legs. The dog's ears are placed forward, and the tail is wagged rapidly. This posture is usually accompanied by a series of sharp barks.

Vocal Communication

Growling and snarling are intended to intimidate opponents. Barking is a sign of territory possessiveness or simply attention getting. Whining is a request for care-giving or affection. Whining may be accompanied by raising one front paw or pawing the animal or person of attention.

Natural Behavior by Breed

The natural behavior of dogs has been modified genetically by selective breeding. These traits can be intensified or suppressed by training, but the trait will remain and can be manifested again under new circumstances such as a new home, owner, or handler, among many possibilities. Although breed behavior varies by family lines, the behaviors intentionally or unintentionally concentrated in breeds can be categorized by usage deemed desirable by past and present breeders.

- Personal guard dogs, such as the boxer, St. Bernard, and mastiff, tend to be even tempered and have a strong bond to family.
- Livestock guard dogs (e.g., Great Pyrenees and Komondor) are solitary, bond less with handlers, and have low reactivity.
- Herding dogs (collie and shepherd breeds) bond strongly to individual handlers, have high desire to chase and herd things that move, and a low level of fear.
- Terriers and pinschers are highly alert, aggressive, and develop possessive bonding with individual handlers.
- Sighthounds (e.g., borzoi, greyhound saluki, whippet) are aloof and quiet, have low reactivity, and bond less strongly with handlers.
- Scenthounds (e.g., bloodhound, coonhound, basset hound, beagle) have low reactivity and low aggression with stoic dispositions.
- Sled dogs (e.g., malamutes, spitz, Norwegian elkhound, Siberian husky) are usually not aggressive but can be, bond weakly with owners, and have moderate reactivity.

Now, let's recap the key points to remember from today's episode:

- Dogs have been domesticated longer and more adapted to living with humans than any other species
- Dogs have more diverse body shapes, sizes, and dispositions than any other species
- Dogs have an uncanny sense of smell and ability to read almost imperceptible human body language

More information on animal handling is available in my book, *Animal Handling and Physical Restraint* published by CRC Press. It is also available on Amazon and from many other fine book supply sources.

Additional information is available at www.betteranimalhandling.com

Don't forget serious injury or death can result from handling and restraining some animals. Safe and effective handling and restraint requires experience and continual practice. Acquisition of the needed skills should be under the supervision of an experienced animal handler.