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The "D" Word: Dominance

We talk about dominance, but do we really understand it?

By Karen B. London ([/web/20210619220505/https://thebark.com/category/author/karen-b-london-phd](https://web.archive.org/web/20210619220505/https://thebark.com/category/author/karen-b-london-phd)) PhD, October 2012, Updated June 2021

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If a dog has behavior issues such as a tendency to mount other dogs, any form of aggression, an overly pushy play style or poor response to training, some people are sure to claim that “dominance” is the culprit. But are they right?

The ongoing dialogue about dominance in the dog world is more problematic than an unattended puppy in a shoe store but it’s unlikely to go away anytime soon. While some hate the concept so much that they refer to it as the “D-word,” others swear by it, considering it an indispensable guiding principle for all interactions with dogs. Having a civil discussion on the subject, much less reaching a consensus, is a challenge, as debates often become quite heated.

Scientific inquiry offers an opportunity for greater understanding of this topic, though writings on the subject with titles such as “Social dominance: Useful construct or quagmire?,” “Social dominance is not a myth: Wolves, dogs, and other animals” and “Deconstructing the concept of dominance: Should we revive the concept of dominance in dogs?” reflect continued controversy. While dominance, or social dominance as it is often called, has been studied extensively in a number of species, relatively little work has been done in this area on the domestic dog, and more research is badly needed.

Defining Dominance

To further complicate an already contentious debate, “dominance” has multiple meanings. As James O’Heare notes, “Often, researchers argue over social dominance without agreeing on a clear definition, and perhaps have different definitions in mind.” There are a variety of ways to characterize it. In his study “The concept and definition of dominance in animal behaviour,” Carlos Drews reviewed 13 different definitions of dominance and pointed out that criticisms of one are not necessarily applicable to others.

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Adding to the frustration and confusion, when it comes to domestic dogs the term is commonly applied to two different types of relationships. The first relates to interactions between dogs. In this usage, dominance is defined as the power to control access to desirable resources and refers to the relative status of two dogs. In the absence of another dog, an individual dog cannot be

said to be “dominant” as a personality attribute because dominance refers to the relationship between dogs.

The second, and more controversial, type of dominance relationship relates to interactions between humans and dogs. In this paradigm, humans dominating dogs is considered the path to well-trained dogs. Those who follow this school of thought claim that you have to control your dogs by being dominant over them in order to make them behave and may make suggestions such as not allowing your dog to sleep on your bed or walk through the door ahead of you, or even to spitting in your dog’s food and making a resting dog move rather than walking around him. Today, fewer trainers subscribe to these ideas than in the past.

Dominance Between Dogs

The few scholarly investigations of dominance relationships between dogs have found the concept relevant to their interactions with one another, and scientists who study social relationships aren’t surprised. For example, Marc Bekoff, PhD — ethologist and professor emeritus at the University of Colorado who has had a major influence on the scientific understanding of dogs as well as many other species — observed that “in the real world, dogs are social beings, and social beings form dominance relationships, just as their wild relatives do.”

Becky Trisko, PhD, ethologist and owner of Unleashed in Evanston, Ill., focused her 2011 doctoral dissertation on social interactions within a group of 24 dogs who regularly engaged with one another at daycare. The behaviors she analyzed included aggressive threat and conflict, muzzle lick, crouch, passive submission, retreat, high posture, muzzle bite, mount and chin-over.

Trisko found a dominance hierarchy among the dogs, although only about 30 percent of the pairs had clear dominance relationships. Dominance rank correlated with age (older dogs tended to rank more highly) but not with size. And contrary to popular belief, neither mounting nor performing chinovers were related to status. As a point of interest, not once in 224 hours of observation during this yearlong study did she observe an “alpha roll.”

Muzzle licking was consistently done by subordinate dogs to individuals of higher rank and was highly predictive of relationships between individuals. The clearest signals were those associated with voluntary submission, or deference. Trisko observed that dominance relationships were not about coercion, force or fighting, but rather, about an understanding by both individuals of their relative social status.

In another study exploring dominance relationships between dogs, Simona Cafazzo and three colleagues observed a group of feral dogs in the suburbs of Rome. Their primary finding was that the dogs formed a linear dominance hierarchy, meaning that the individuals in the group could be ranked in order from highest to lowest in status. (Other possible social structures include having one individual who dominates all others who are equally low-ranking or societies in which the relationships are not transitive— e.g. A dominates B, B dominates C, C dominates A). A linear dominance hierarchy indicates that the dogs in this study were capable of forming stable social groups, although many have claimed that feral dogs cannot do so. Additionally, they found that submissive behavior was most predictive of dominance relationships, rank correlated with age, and males within an age class outranked females. Rank order in the linear dominance hierarchy predicted access to food resources, with those of higher rank having priority access.

Dominance has been studied in puppies as well as in adult dogs. John Bradshaw and Helen Nott reported that interactions between littermates were inconsistent over time, and that observations of such interactions did not predict which puppy would come out on top in any competitive situation; “winners” varied from one day to the next. Despite much discussion of choosing (or avoiding) the dominant puppy in a litter, interactions between littermates do not reveal dominance relationships, much less any kind of linear hierarchy.

The Dangers of Misunderstanding Dominance

Conversations about dominance relationships between dogs are often tense, but discussions of the concept within the context of relationships between humans and dogs are sometimes nothing short of explosive. Many of the strongest objections stem from using it to endorse force-based, coercive styles of training. According to Trisko, “Dominance has been wrongly equated with aggression and used to rationalize the use of physical force and intimidation by humans toward dogs. Misunderstandings of the concept of dominance have led to unnecessary physical punishments and abuse of dogs by humans.”

While no studies have thoroughly investigated whether dominance relationships exist between people and dogs, there is evidence that such training styles can create problems. Herron et al. investigated such techniques, often called “dominance reduction training,” and found them to be counterproductive. The confrontational methods associated with training styles that insist that we “get dominance over our dogs” caused aggressive responses in 25 percent of the dogs in their study. Techniques such as grabbing a dog by the jowls and shaking; hitting or kicking; staring; performing alpha rolls (also called “dominance downs”) and physically forcing a dog to release an item were more likely to result in aggressive behavior than were gentler, positive methods. Using such forceful methods can actually create problem behavior as well as increase a dog’s fear and anxiety. Based on what we know about dominance relationships between dogs, this is not surprising. As Trisko notes, “If dominance relationships between dogs and humans are at all similar to dominance relationships between dogs, then dominance does not apply to all relationships and when it does apply, it does not require the use of intimidation or physical force.”

A basic ethological premise is that we must understand the animals we study. In fact, this principle is considered so absolute that it is most often phrased as a commandment: Know thy animal! Understanding how social dominance does and does not apply to dogs is part of knowing who dogs are. Trisko makes this point: “If we really want to understand our dogs’ behavior, especially their relationships with other dogs, ignoring dominance will hinder us.” Bekoff agrees. “That’s who they are, that’s how they behave. They form status relationships, and we have to understand that.”

When it comes to the issue of dominance, common ground is not easy to find. Few would dispute the need for further research, though even the most carefully designed studies may not be enough to bring agreement on this particular subject. As Bekoff has noted, “People get on this kick with dominance. They don’t pay attention to the data.”

Arguments about dominance and its relevance to dogs, their relationships with each other, and our relationships with them are sure to continue. Though I prefer resolution to conflict, I can’t help but see the wisdom in moralist and essayist Joseph Joubert’s remark: “It is better to debate a question without settling it than to settle a question without debating it.”

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