

# Resource Guarding in Dogs

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## The focus of the discussion

- Which individual in a dyad (pair of animals) is considered to be dominant in the relationship?
- What criteria is used to make that determination (acquisition of resource vs. defense of resource)?
- Does aggression over the control of resources equate with dominance based aggression?

“Dominance: the assertion of one member of a group over another in acquiring access to a piece of food, a mate, a place to display, a sleeping site or any other requisite that adds to the genetic fitness of the dominant individual...” E.O. Wilson from *Sociobiology: The New Synthesis* Belknap Press of Harvard University Press, 1975. pg 257

## Resource holding potential

“.....examples of "aggressiveness" are far more likely to represent long-term differences in subjective resource value.” Hurd PL.

“Resource holding potential, subjective resource value, and game theoretical models of aggressiveness signaling.” *J Theor Biol.* 2006 Aug 7;241(3):639-48. Epub 2006 Feb 9

“Dominance is a concept found in traditional ethology that pertains to an individual’s ability, generally under controlled conditions, to maintain or regulate access to some resource.” Karen Overall (“Clinical Behavioral Medicine for Small Animals” Mosby 1997. pg. 115

“Relative dominance is usually tested by giving two dogs access to one bone. The dog that gets possession is considered the higher-ranking dog.” Katherine Houpt (“Domestic Animal Behavior for Veterinarians and Animal Scientists” Iowa State U. Press 1982 pg 65)

“...a single bone was brought in, shown to the puppies, and laid between them....”

“...we defined a completely dominant animal as one that kept possession of the bone the majority of the time and was able to repossess it at will.” John Paul Scott and John L. Fuller (“Dog Behavior: The Genetic Basis” The University of Chicago Press 1965 pg. 156)

“The dominant dog shows a self-assured gait, a large, confident body posture, raised head, raised ears, large eyes and curled lips, all in different intensities and combinations depending upon the degree of dominance, superiority, or self-confidence.” Roger Abrantes (“Dog Language” Wakan Tanka Publishers 1997 pg. 93)

“...Once everyone knows his place, the alpha male need only move toward a lower-ranking male to have that individual hurry out of the way or otherwise signal submissiveness...” John Alcock (“Animal Behavior” Sinauer Associates, Inc. Publishers 2005 pg. 332)

## Equal opportunity tests (EO tests)

“In equal opportunity tests (EO tests), both members of a pair had equal chance to seize the bone when it was tossed into the arena” Beach, Beuhler and Dunbar (“Competitive behavior in male, female, and pseudohermaphroditic female dogs.” *J Comp Physiol Psychol.* 1982 Dec;96(6):855-74)

## Established possession tests (EP tests)

“During an EP test, the loser of the preceding EO test was given possession of the bone before the former winner was returned to the test arena” Beach, Beuhler and Dunbar (“Competitive behavior in male, female, and pseudohermaphroditic female dogs.” *J Comp Physiol Psychol.* 1982 Dec;96(6):855-74)

“...for a meaningful formal test of dominance, and to rule out differential motivation as a confounding factor contaminating the results, both animals must be motivated equally for the same resource.” Wendy van Kerkhove (“A Fresh Look at the Wolf-Pack Theory of Companion-Animal Dog Social Behavior” *JOURNAL OF APPLIED ANIMAL WELFARE SCIENCE*, 7(4), 279–285)

“A reasonable hypothesis is that the physical restrictions and limitations of captivity define environmental circumstances, engendering the formation of dominance hierarchies in wolves. Much the same might be said for dogs living together in a household.” Wendy van Kerkhove (“A Fresh Look at the Wolf-Pack Theory of Companion-Animal Dog Social Behavior” *JOURNAL OF APPLIED ANIMAL WELFARE SCIENCE*, 7(4), 279–285)

## Possessive aggression

Aggressively guarding or maintaining control of a valued object (bone, chew item, stolen items or food, etc.). Guarding is considered to be normal behavior but can increase with opportunities for learning or can be exaggerated as a consequence of fear or defensive behavior/conflict.

“...food guarding was the most common circumstance for bites to familiar children (42%) and territory guarding for bites to unfamiliar children (53%). Behavioral screening of the 103 dogs examined revealed resource guarding (61%) and discipline measures (59%) as the most common stimuli for aggression.” Reisner IR, Shofer FS, Nance ML; “Behavioral assessment of child-directed canine aggression.” Department of Clinical Studies, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA 19104-6010, USA.

- Food Guarding
- Resource Guarding
- Possessive Aggression

These are all terms describing the use of aggressive behaviors to maintain possession of valued items.

The aggression can be directed towards humans or other animals.

Items can include anything which motivates an individual animal. In companion dogs these can be:

- Food
- Bones
- Rawhide
- Stolen Items

### **Possessive aggression**

The sphere of guarding (critical distance in which a dog may react to approaching individuals) can increase over time to the point of the animal guarding a space that the valued object is contained within

The behavior can be seen concurrently with Conflict Aggression and Territorial Aggression

Punishment or forced removal of items or food can increase the likelihood of the animal escalating aggressive displays to maintain control of items. This fear based response can result in the aggressive guarding of benign items that may not contain the same value as the original objects possessed by the dog

The aggressive behaviors can be directed to both familiar and unfamiliar individuals when the appropriate circumstances exist to motivate the guarding response.

Fear based body postures may be present initially but over time, as the dog learns the value of using aggression, body language may appear more confident.

### **Other possible diagnoses**

- Disease Conditions - Is there a medical condition causing the dog to use aggression to prevent pain inducing activities
- Conflict Related Aggression - Does the aggression extend to other situations where the dog is using aggression to have an individual cease certain activities
- Dominance Related Aggression - Does the dog displace another individual from a valued resource?

### **Medical examination**

Always begin with having the animal evaluated medically and appropriate testing should be performed. Conditions which cause pain or conditions which increase appetite may result in an increase in food acquisition and guarding behaviors.

### **Treatment**

- Avoid known triggers (secure food, control access to toys and highly valued items, isolate during feeding and feed small meals)
- Consistent periods of play and exercise
- Avoid confrontation over retrieval of objects
- “Nothing in Life is Free” routine in order to increase consistency of interactions and put control of resources in owner’s hands
- Provide alternate items and activities, especially at high risk times, to substitute for the animal focusing on other valued items
- Trade for valued items that must be retrieved
- Utilize a leash and head collar to facilitate redirecting the dog’s behavior when needed

Once the level of tension has reduced between the dog and owner, if desired, the owner can work on teaching:

- “Drop It” and “Leave It” commands for managing object possession
- Desensitization to the presence of the owner around the food bowl in order to manage food guarding behaviors

Possessive Aggression is typically managed and controlled and not cured. As with most forms of aggression, the only guarantee can be made with a recommendation of euthanasia. Short of this option, the owner is always accepting some degree of risk.