Changing Attitudes About Dominance in Domestic Dogs (*Canis lupus familiaris*)

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An Outdated Model

Dominance-Based Dog Training

Many concepts of dominance, and alpha position currently popular among pet professionals is based on older scientific research on wolf and dog behavior that has been brought into question since published or is based on misinterpretation of scientific results (Bradshaw et al., 2009, Hetts DVD, Van Kerkhove, 2004).

Dominance-based dog training assumes that wolves and domestic dogs are genetically determined to organize themselves into a strict linear dominance hierarchy (source). In other words, the group or pack has a top down organization in which the highest ranking individual or pair, referred to as the alpha(s), have primary access to all resources at all times. The beta individual outranks all but the alpha(s) and so on. Dominance-based dog training further assumes individuals will aggressively compete for the highest rank possible (source). It concludes, therefore, that pet dog owners should view their households as a pack with a linear hierarchy and should take steps to be the alpha dog(s) (source).

Common Myths and Misconceptions

Misinformed assumptions have lead to beliefs that dominance is a personality trait in some dogs and that dogs higher-ranked than owners, will develop unwanted behavior (source). For example...

- Mouthing or nipping during play
- Leaning against person or jumping up on person
- Not responding to commands
- Attention seeking
- Pulling on leash
- Mounting (aka humping)
- Excessive barking
- Destruction and stealing objects
- Escaping
- Lying in doorways
- Excited at the front door
- Elimination problems/marking
- Coprophagia (eating feces)
- Aggressive toward a variety of individuals in a variety of situations

Inappropriate Dog Training Techniques

Physical force and threats by humans toward dogs as a means of establishing dominance has been recommended as daily exercises and/or as punishment for unwanted behavior (AVSAB source, Hetts DVD).

The "alpha roll" falsely claims to imitate behavior between a dominant/subordinate pair of wolves and is dangerous to both dog and human (AVSAB, Bradshaw et al., 2009, Hetts, DVD, Van Kerkhove, 2004). An "alpha roll" usually includes one or more of the following:

- Turning a dog onto it's side or back
- Holding or shaking the scruff, neck or face
- Holding or putting pressure on the muzzle
- Pulling a dog off the ground by it's collar
- Close, direct eye contact, pointing, leaning over dog

Less dangerous but no more effective in preventing/stopping unwanted behavior is a list of "don't" rules (Voith, Hetts, DVD). For example...

- Don't spoil dog/treat like human child
- Don't allow dog to win at tug-of-war
- Don't allow dog to sleep in bed or on furniture
- Don't allow dog through doors first
- Don't allow dog to walk ahead on leash
- Don't allow dog to eat first

photograph by Ellen Mahurin

Example of an "alpha roll," a dangerous and inappropriate training technique. This dog was trained with positive reinforcement to allow such handling. No animals or humans were harmed.

photograph by Ellen Mahurin

Facts and Understanding

Social dominance is a relationship between two animals established over time by repeated competitive interactions (Drews, 1993). Observations of pairwise interactions within a group do not always clearly reveal one of several defined social structures (Bradshaw et al., 2009).

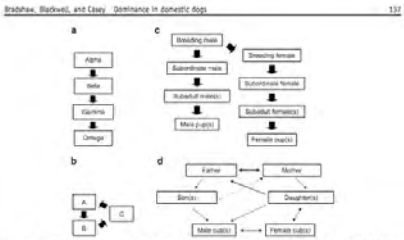

Figure 1 Diagrammatic representations of distributions of dominance relationships within social groupings, where arrows indicate the direction of dominance: (a) linear transitive hierarchy, (b) intransitive (circular) structure, (c) classic captive wolf-pack seralgo graded hierarchy, (d) family-based wolf pack. Figures (c) and (d) are redrawn from Packard (2003).

Wolf Behavior - Older Studies

Earlier wolf studies (1940s-1980s) involved unacquainted wolves put into captivity to breed freely (Mech, 1970). Scientists observed an aggressive struggle to establish social structure which resulted in a graded, linear dominance hierarchy. Scientists concluded alpha males and females in wild wolf packs control all resources and activities through aggression and that the most aggressive animals achieve the highest rank and get the most chances to breed and, therefore, evolution favors aggression (Mech, 1970).

Wolf Behavior - More Recent Studies

Wild wolves are family packs usually composed of one breeding pair and one or more litters of offspring (Mech 1999 & 2000). There is no need for aggressive status climbing because parents naturally lead the activities of the offspring and divide resources and responsibilities in a way that is practical and beneficial to the family (Mech, 1999 & 2000). Older siblings naturally dominate younger siblings. All offspring have equal potential to breed when they disperse at 1-3 yrs. old. Displays of dominance and submission within the family pack are ritualized and non-aggressive (Mech, 1999, 2000 & 2001).

Feral Dog Behavior

Feral dogs show less sophisticated social organization compared to wild wolves (Bradshaw et al., 2009, Van Kerkhove, 2004). In urban areas, feral dogs showed amorphous associations in which a few dogs scavenged together for a short time then dispersed. In larger populations in less urban areas coherent social groups of close kin with ritualized dominance/submission displays within groups and aggression between groups has been observed. In both areas, feral dogs rarely cooperated to catch large prey, females were bred by multiple males, there was poor parental care and low pup survival (Bradshaw et al., 2009, Van Kerkhove, 2004).

Domestic Dog Behavior

I has been suggested that dogs may have descended from wolves who left packs to become scavengers at human dump sites (Coppinger & Coppinger, 2001). This niche would favor individuals who were self-sufficient and less wary of humans. A group of 19 male domestic dogs in a rescue group were observed to show dominant/subordinate behavior with one another but no clear hierarchy could be determined. A few dogs stayed away from the others so no relationships could be determined. Several others did not show dominance over anyone (Bradshaw et al., 2009).

Further Information

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Observations from Pet Behavior Consulting

I worked as a pet behavior consultant in Knoxville, TN from 2004-2009. Prior to consultation, many of my clients were practicing some form of dominance-based dog training.

Poor Results

Narrow focus on dominance, prevented clients from making other observations that could have accurately explained and eliminated unwanted behavior. Some were advised to determine linear hierarchy of dogs or dogs+humans in the home. Observers often failed to understand that dominance has to do with direct competition, did not take into account subjective value of resources and/or did not consider associative learning in particular contexts. Alternative, simpler explanations (parsimony) for unwanted behavior were not considered. Some clients felt guilty for not being mentally or physically "strong enough" to "control their dogs." Taking away blame created a better relationship among client, pet and behaviorist resulting in higher success in behavior modification.

Alternative Training That Works

In my practice, successful training began with history taking, observation and client education on topics such as natural canine behavior, dog communication, motivation and learning. In behavior modification, the basic principles of operant and classical conditioning were utilized in all my cases. More specifically, I taught clients to positively reinforce wanted behavior, negatively punish unwanted behavior, interrupt and redirect behavior, be consistent and repetitive and/or modify the environment, human behavior and routine.

Why Does Dominance-based Training Persist?

Many clients were surprised about training alternatives because dominance-based training was recommended by the majority of pet professionals encountered. Some would ask for help improving their dominance-based training, so convinced in the appropriateness of this advice and in their inability as the reason it was ineffective in modifying behavior. Sometimes dominance-based techniques worked but not because dogs began to see their owners as "alphas" but rather because principles of classical and operant conditioning were part of training. In some cases where dominance-based physical force was used, it seemed clients were highly stressed, found emotional satisfaction in force or greatly feared losing control of their dogs.

A New Perspective

If all members of the family are happy then there is no need to make changes. Let dogs be dogs by understanding their true nature. Let humans be humans, because without a dog's body, brain or timing, it's impossible to appear dog-like to a dog. Dogs and humans can live together happily when the two species know how communicate and learn from one another. No more "alpha" guilt.

photograph by Ellen Mahurin

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Voith

Acknowledgments

Thanks to the Animal Behavior Society and the Interdisciplinary Forum on Applied Animal Behavior for the joint meeting and special poster session.

Thanks to Dr. John New and Teresa Jennings of the University of Tennessee College of Veterinary Medicine for requesting the public education talk that inspired this poster.