

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

Poster presentation handout - Animal Behavior Society annual meeting 2010 - Williamsburg, VA
Ellen Mahurin, MA Clever Critters Yorktown, VA



"Reports of my dominance have been greatly exaggerated."

(with apologies to Mark Twain)

An Outdated Model

Dominance-Based Dog Training

Concepts of dominance, and alpha position currently popular among many pet professionals are 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 (AVSAB 2007 and 2008, Bradshaw et al., 2009, Hetts & Estep, 2008, Van Kerkhove, 2004). Several animal behaviorists are using education to change attitudes about dog dominance.

Dominance-based dog training assumes that wolves and domestic dogs are genetically determined to organize themselves into a linear dominance hierarchy (Fogle, 2003, Geller & Cagan, 2007, Milan & Peltier, 2007, Monks, 2002). 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 compete, often aggressively, for the highest rank possible (Milan & Peltier, 2007, Monks, 2002). 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) (Fogle, 2003, Geller & Cagan, 2007, Milan & Peltier, 2007, Monks, 2002).

Common Myths and Misconceptions

Some pet professionals teach that dominance is a personality trait in some dogs and that dogs higher-ranked than owners, will develop unwanted behavior (Fogle, 2003, Geller & Cagan, 2007, Milan & Peltier, 2007, Monks, 2002). This is a misunderstanding of the concept of social dominance and its link to behavior (Drews, 1993, Godloe & Borchelt, 1998, Hetts & Estep, 2008).

Examples:

- 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/markings
- Coprophagia (eating feces)
- Aggressive toward a variety of individuals in a variety of situations

Inappropriate Dog Training Techniques

Undue Force

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 (Milan & Peltier, 2007, Monks, 2002). The "alpha roll" falsely claims to imitate behavior between a dominant/subordinate pair of wolves and is dangerous to both dog and human (AVSAB 2007 and 2008, Bradshaw et al., 2009, Hetts & Estep, 2008, Van Kerkhove, 2004). An "alpha roll" usually includes one or more of the following:

- Turning a dog onto its 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 its collar
- Close, direct eye contact, pointing, leaning over dog



Ineffective Blanket Rules

Other trainers recommend a list of "don't" rules (Geller & Cagan, 2007). These are less dangerous but no more effective in preventing/stopping unwanted behavior (Goodloe & Borchelt, 1998, Hetts and Estep, 2008, Rooney and Bradshaw, 2002, Voith et al. 1992).

Examples:

- Don't spoil dog
- Don't treat dog 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

Facts and Understanding from the Literature

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).

Wolf Behavior - Older Studies

Earlier wolf studies (1940s-1980s) involved unacquainted wolves put into captivity to breed freely (Mech, 1970, Bradshaw et al., 2009). 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, Bradshaw et al., 2009).

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 have 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. Some dogs stayed away from all others and several did not show dominance over anyone (Bradshaw et al., 2009). Dogs trained with positive reinforcement versus physical force or verbal threats were better trained with less behavior problems (Hiby et al., 2004).

Observations from Pet Behavior Consulting

As a pet behavior consultant in Knoxville, TN from 2004-2009, I noticed that misconceptions about canine social behavior were pervasive among my clients. 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 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" which lowered confidence and interfered with success.

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, body language, motivation and learning. In behavior modification, the basic principles of operant and classical conditioning were utilized in all my cases. I taught my clients to positively reinforce wanted behavior, ignore, negatively punish or interrupt and redirect unwanted behavior, properly mark behavior with cues, be consistent and repetitive, take small steps and to 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 Attitude

Dogs and humans do not form a canine pack but a multi-species group. Order in the home is not gained through force or blanket rules. Each family should decide on house rules that make all members happy. Dogs can learn how to live by human rules when humans understand normal canine behavior and know how to communicate via body language and classical and operant conditioning.

Literature Cited

- American Veterinary Society of Animal Behavior (AVSAB). (2007). AVSAB Position Statement: The Use of Punishment for Behavior Modification in Animals. Retrieved from http://www.avsonline.org/avsonline/images/stories/Position_Statements/Combined_Punishment_Statements.pdf
- American Veterinary Society of Animal Behavior (AVASB). (2008). Position Statement on the Use of Dominance Theory in Behavior Modification of Animals. Retrieved from http://www.avsonline.org/avsonline/images/stories/Position_Statements/dominance%20statement.pdf
- Bradshaw, J.W.S., Blackwell, E.J., & Casey, R.A. (2009). Dominance in domestic dogs-useful construct or bad habit? *Journal of Veterinary Behavior*, 4, 135-144.
- Coppinger, R. & Coppinger L. (2001). *Dogs: A New Understanding of Canine Origin, Behavior and Evolution*. The University of Chicago Press.
- Drews, C. (1993). The Concept and Definition of Dominance in Animal Behaviour. *Behaviour*, 125, (4), 283-313.
- Fogle, B. (2003). *Dog Owner's Manual*. Dorling Kindersley, New York: Cobalt Id
- Geller, T. & Cagan, A. (2007). *The Loved Dog: The Playful Non-aggressive Way to Teach Your Dog Good Behavior*. Simon and Schuster, New York: Simon Spotlight Entertainment.
- Goodloe, L. P. and Borchelt, P. L. (1998). Companion dog temperament traits. *Journal of Applied Animal Welfare Science* 1(4): 303-338.
- Hetts, S. & Estep, D. (2008). *The Dangers of Dominance: DVD Educational Program*. USA: Animal Behavior Associates.
- Hiby, E.F., Rooney, N.J. & Bradshaw, J.W.S. (2004). Dog training methods: their use, effectiveness and interaction with behavior and welfare. *Animal Welfare*, 13, 63-69.
- Mech, L.D. (1970). *The Wolf: The Ecology and Behavior of an Endangered Species*. Doubleday Publishing Co., New York: Natural History Press.
- Mech, L.D. (1999). Alpha status, dominance, and division of labor in wolf packs. *Canadian Journal of Zoology*, 77, 1196-1203
- Mech, L.D. (2000) Leadership in Wolf, *Canis lupus*, Packs. *Canadian Field-Naturalist*, 114(2), 259-263.
- Mech, L.D. (2001). Standing Over and Hugging in Wild Wolves, *Canis lupus*. *Canadian Field-Naturalist*, 115 (1), 179-181.
- Milan, C. & Peltier, M.J. (2007). *Be the Pack Leader: Use Cesar's Way to Transform Your Dog . . . and Your Life*. Random House Inc., New York: Three Rivers Press.
- Monks of New Skete, The (2002). *How to Be Your Dog's Best Friend*. Boston, New York and London: Little Brown and Company.
- Rooney, N. J. and Bradshaw, J. W. S. (2002). An experimental study of the effects of play upon the dog-human relationship. *Applied Animal Behaviour Science*, 75(2): 161-176.
- Rooney, N.J. & Bradshaw, J.W.S., (2006). Social cognition in the domestic dog: behaviour of spectators toward participants in interspecific games. *Animal Behavior*, 72, 343-352.
- Van Kerkhove, W. (2004). A Fresh Look at the Wolf-Pack Theory of Companion-Animal Dog Social Behavior. *Journal of Applied Animal Welfare Science*, 7(4), 279-285.
- Voith, V.L., Wright, J.C. and Danneman, P.J. (1992). Is there a relationship between canine behavior problems and spoiling activities, anthropomorphism, and obedience training? *Applied Animal Behavior Science*, 34, 263-272.

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 lecture that inspired this poster.