



The Role of Toys in Canine Behavior

*Katherine Albro Houpt, VMD, PhD, DACVB
James Law Professor of Animal Behavior
Department of Clinical Sciences
College of Veterinary Medicine
Cornell University*

One of the most endearing traits of dogs is their playfulness, which often extends beyond puppyhood to the dog's life span. Play behavior begins during the critical or sensitive periods of development, when puppies are about 3 weeks old.¹ At that age, they mouth; by 4 to 5 weeks, they scruff hold and can "worry" (shake) one another. By 6 weeks, they can signal play with the play bow. Humans can use a bow-and-lunge movement to initiate play in dogs.²

Social play decreases with age in puppies, but exploratory play increases. Although play may be directed toward other dogs or humans, it is also directed toward inanimate objects—toys. Owners are often discouraged from wrestling with their dogs because of the possibility of encouraging dog-to-human aggression. This leaves toys as a primary way in which owners can interact with their dogs.

TOY TYPES

Toys can be classified into three main types: retrieving toys, usually balls but also simple objects such as sticks; chew toys, which are less interactive; and puzzle toys that reward the dogs with food. Chew toys are attractive either because they have interesting textures or because of their resiliency, which stimulates the dog orally (Figures 1 and 2). Chew toys

are an artificial substrate for canine gnawing, which might otherwise be directed to the owner's shoes, table legs, or other undesirable objects. The wolf gnawing on the leg of its prey has its counterpart in the beagle gnawing on a sterilized bone purchased by its owner from a pet store or even an untreated bone from the butcher shop. Bones may

be dangerous as toys—especially small, cooked bones that are friable. This has led some veterinarians to advise against providing bones to dogs. The recent fad of feeding bones and raw food (BARF diet) may help determine whether these warnings are justified.

Bones are the most defended of toys.³ Dogs are most likely to be aggressive—



Figure 1. The texture of toys made of resilient rubber is often attractive to dogs. (Courtesy of Dr. Tom Houpt)



Figure 2. One goal of a chew toy is to redirect the natural chewing instinct to a more acceptable object. (Courtesy of The Hartz Mountain Corporation)

growl, snap, or bite—when a human attempts to take a bone from them. This problem is so common, even among dogs that otherwise do not defend food, that many owners do not classify it as aggression or even a problem. Many veterinary behaviorists classify it as “possessive” aggression.⁴

The next chew toy most likely to be guarded is a rawhide. These are large or small pieces of dried animal hide or other body parts, such as hooves or penises. These, too, may cause choking if a piece of rawhide is aspirated or gastrointestinal obstruction if a dog swallows a large piece of rawhide. Despite these possible consequences, bones or rawhides enrich the lives of many dogs, helping them endure the absence of their owner or serving as an evening treat, almost like a cocktail, to help the dog relax. Artificial bones may not be as attractive to dogs.

Some dogs favor fabric or fleece toys. These do not provide the same dental stimulus but are more flesh-like, which may be why such toys often release predatory behavior; the dog may shake or worry it and then carry the toy. Some dogs destroy fabric toys within minutes or hours, in which case a tougher chew toy is needed. Chew toys made of rubber are usually strong enough to withstand canine teeth. A popular feature of many

rubber toys is a hollow portion that can be filled with food or a treat, which can encourage the dog to chew on it. Items such as peanut butter or liverwurst are good choices; cheese can be melted inside some such toys (by placing it in a microwave), or biscuits or other treats can be wedged inside. Another option is to first freeze the food or treat in water or broth. Popcorn can be used for dogs prone to obesity. The principle is that the dog will spend a long time extracting the contents from the toy. Dogs often hold the toys between their front paws while they chew the outside or lick the inside. For this reason, these types of toys are suggested as part of the treatment of separation anxiety.⁵

Dog toys are sold in a dazzling array of colors, but because dogs are dichromatic—they perceive fewer hues than humans—the reds and greens are more apparent and, presumably, more pleasing to the owner than to the dog. Dogs see the world in shades of yellow, blue, and purple.⁶ Toys in those colors would be more distinguishable to the dog but may not be any more attractive.

A NOTE ABOUT PUPPIES

Puppies can be very destructive. They probably do not aim to destroy things but rather are exploring their environment. Lacking fingers, they explore with their

mouths, feeling and tasting their world. This is why it is so important to provide puppies many types of toys.

An important warning to owners of puppies is that discarded human clothing, especially shoes, should not be used as toys. Any money saved on puppy toys is soon surpassed by the replacement costs of good shoes, which the puppy believes are just another chew toy. The pup may even associate the smell of human feet, common to discarded and in-use shoes, with desirable chewing surfaces.

“TUG OF WAR” GAMES

The importance of chew toys for some adult dogs is exemplified by dogs employed in sniffing out ammunition or narcotics. The reward for many of these dogs is not food but the opportunity to play with, tug, and worry a rolled-up towel. Owners are often counseled not to play tug of war with their dogs, especially if the dog is aggressive. The only published experiment along these lines involved golden retrievers; the experimenter played tug of war with the dogs in forty-eight 3-minute sessions, half of which the dog won.⁷ These dogs did not become aggressive, but different results might be obtained if a guard-type (i.e., aggressive) dog played tug of war with its owner for the first 2 years of life. If the owner always wins, it is probably safe to play this game enjoyed by so many dogs and their owners. Alternatively, tug toys can be suspended from a tree branch for the dog to use alone. Dogs are more rewarded if they win, so dogs being rewarded for detecting drugs or explosives should be allowed to win.

RETRIEVING

Retrieving is a form of play that has been selected not only in retrievers but also in herding dogs. It appears to be innate in many breeds but may need to be encouraged during puppyhood for this particularly rewarding form of play to persist into adulthood.⁸ There are three stages of retrieving—chase, bring back, and release—and not all dogs will do all

three. Some dogs chase and grab a ball or stick and then either do not return it to their owner or will return it but not relinquish it. Some owners use two balls so that the dog must release or spit out one to pick up the other. Flying disks are another popular retrieving toy and provide even better exercise because dogs must jump to catch them.

WHEN PLAY ISN'T A GAME ANYMORE

There are large differences in the playfulness and types of play preferred by dogs. At times, play can become almost pathologic. Some dogs may even display play-related obsessive-compulsive disorder (OCD). It can be difficult to know if a dog is obsessing, but a dog that lies in front of the cabinet in which the tennis ball is stored and that plays fetch with the ball to the point of exhaustion can safely be

diagnosed with an OCD. Dogs such as border collies, which have been selected for long attention spans and intense concentration, may be predisposed. Retrievers may also be compulsive. Care must be taken that such dogs do not injure themselves or become exhausted or overheated when they play for too long a period. Observation of fly ball competitions suggests that participating dogs are compulsive. OCD may be treated with tricyclic antidepressants, or the object with which the dog is obsessed can be removed from the environment.⁴

CONCLUSION

Toys are a form of environmental enrichment for clients' dogs, which may otherwise lead unstimulating lives without performing the tasks for which they were bred. Because dogs may spend as much as a quarter of their time

playing,⁹ owners should be encouraged to use toys to strengthen the human-dog bond with their pets.

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