

Want a Peace-Loving Dog? This Surprising Trait Can Help

Researchers studied doggie behaviors and found some surprising links to their behaviors. You'll never guess which breeds are more aggressive, or exhibit the most unwelcome behaviors and more. What to know before your next dog adoption.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Research suggests that a dog's height, bodyweight, and skull proportions play an important role in his behavioral traits
- The study concluded that small dogs have more aggression issues than larger breeds, and in general, the number of undesirable behaviors increases as the size of the dog decreases
- As the height of the dogs decreased, there was an increase in the incidence of mounting behavior, owner-directed aggression, begging for food, and attention-seeking
- When average bodyweight decreased, excitability and hyperactivity increased
- Higher owner tolerance for undesirable behaviors in small dogs is an important contributing factor that needs to also be considered

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Dogs hold the distinction of being the most variable species on earth. It's hard to believe that a Maltese, for example, is the same species (*Canis lupus*) as a Doberman Pinscher.

But while all domesticated dogs (subspecies *Canis lupus familiaris*) are descendants of wolves:

*"The size of individual dogs or dogs of various breeds accounts, at least in great part, for their behavior," according to Dr. Raymond Coppinger, author of *Dogs: A Startling New Understanding of Canine Origin, Behavior, and Evolution*, and a professor of Biology at the University of Massachusetts.¹*

"In many ways, small dogs respond very differently than very large dogs," says Coppinger.

Your Dog's Size Influences His Behavior

Research at the University of Sydney offers further proof of Coppinger's theory. The study, published in the open access journal PLoS ONE, suggests that a dog's size and skull shape are important factors in his behavior.²

For the study, the researchers evaluated dog owner reports on the behavior of over 8,300 dogs across 80 different breeds, and compared them to the size of 960 dogs of those breeds. The data-gathering tool they used was the Canine Behavioral Assessment and Research Questionnaire (C-BARQ).

The results revealed a strong link between height, body weight, skull proportions (width and length), and behavior. Smaller dogs showed more aggression issues than larger dogs.

According to lead study author Dr. Paul McGreevy of the University of Sydney's Faculty of Veterinary Science:

"[In] the most comprehensive study undertaken to date, our research shows that certain physical characteristics in dogs are consistently associated with certain types of behaviour.

*Essentially, the shorter the dogs the less controllable their behaviour is for their owners."*³

33 Out of 36 Undesirable Dog Behaviors Are Size-Related

The researchers found that as the height of the dogs decreased, there was an increase in the incidence of mounting behavior, owner-directed aggression, begging for food, and attention-seeking. In contrast, increasing height was associated with trainability.

When average bodyweight decreased, excitability and hyperactivity increased. The study revealed that 33 out of 36 undesirable behaviors were associated with a dog's height, body weight, and the shape of her skull. Some of these included:

- Mounting people or objects
- Non-social fear
- Sensitivity to being touched
- Aggression toward owner
- Urinating or defecating when left alone
- Begging for food
- Fear of other dogs
- Urine marking
- Separation anxiety
- Attention-seeking

More Fascinating 'Size Matters' Insights

Another interesting discovery was that long-skulled dogs, for example, Afghans, Salukis, and Whippets, excelled at hunting/chasing behaviors, but also tended to exhibit fear of strangers, persistent barking, and stealing food.

*"Given hunting dogs have not traditionally been companion animals sharing close quarters," says McGreevy, "this may not be surprising."*⁴

Short-skulled dogs like the Pug and Boxer, breeds that have undergone, and in many cases suffered, generations of selective breeding to further "enhance" their pushed-in faces, tend to display more puppy-like behaviors as adults. They also seem to have completely abandoned many of their hunting instincts. Some additional general observations from the study:

- Unwanted behaviors increase as the size (and height) of a dog decreases.
- Dogs with short muzzles engage in more grooming and compulsive staring.
- Smaller breeds, especially terrier breeds, showed more stranger-directed aggression. The researchers wonder if terriers were selected (bred) for aggressiveness because their job at one time was to chase and hunt underground prey. It could be that smaller breeds with short legs have inherited aggression.
- Smaller dogs engage in more attention-seeking behaviors — which are linked to jealousy and territorialism — during times when a dog's owner is paying attention to someone else.
- Larger breeds descended from smaller breeds that were meant as companion dogs may have behaviors that are at odds with their body size.
- In addition, lightweight breeds are more apt to be excitable, hyperactive, and energetic compared to breeds with heavy bodies.
- Coping behaviors in response to stress, such as fly-snapping, are related more to a dog's weight than height. The shorter and stockier the dog, the greater the tendency to display coping behaviors.
- Obsessive tail-chasing isn't linked to size or breed, nor is coprophagia (poop eating), chewing, or pulling on leash.

Is Small Dog Behavior More the Result of Nature, or Nurture?

In drawing conclusions from their research, the University of Sydney team considered the fact that dog owners may be more tolerant of undesirable behavior in smaller dogs, which may in turn result in increased behaviors such as excessive barking, nipping, eliminating indoors, begging, separation anxiety, and attention-seeking.

The researchers speculate that small dog owners may actually encourage undesirable behaviors, and predispose their pets to separation anxiety, puppy-like behaviors, mounting, and begging. The tendency to keep small dogs indoors and under-exercised may also be contributing factors.

"Undesirable behaviours such as owner aggression, or mounting, occur more often among small dogs. This suggests that, in small dogs, these behaviours are tolerated more than they would be in larger dogs where such behaviours are more unwelcome and even dangerous. Equally, such behaviours in small dogs may be a result of their being overindulged and over-protected," said McGreevy.⁵

Another consideration is that smaller breeds are known to be more reactive, neurologically, to stimuli in their environment than larger dogs, who tend to be more laid back. According to study author McGreevy:

"These findings ... remind us that domestic dogs are an extremely useful model for exploring the biological forces that produce diverse animal structures and their related behaviours.

The interaction of nature and nurture in producing the relationships we have described in this study creates a raft of fascinating questions that further studies will address."⁶

Sources and References

[USDAA March 19, 2015 \(Archived\)](#)

[AAHA December 24, 2013 \(Archived\)](#)

¹ [Chicago Tribune, July 15, 2015 \(Archived\)](#)

² [PLoS One. 2013 Dec 16;8\(12\):e80529](#)

^{3, 4, 5, 6} [Phys.org, December 17, 2013](#)
