

Skin Deep

*Looks aren't everything,
but they do play a role in communication*

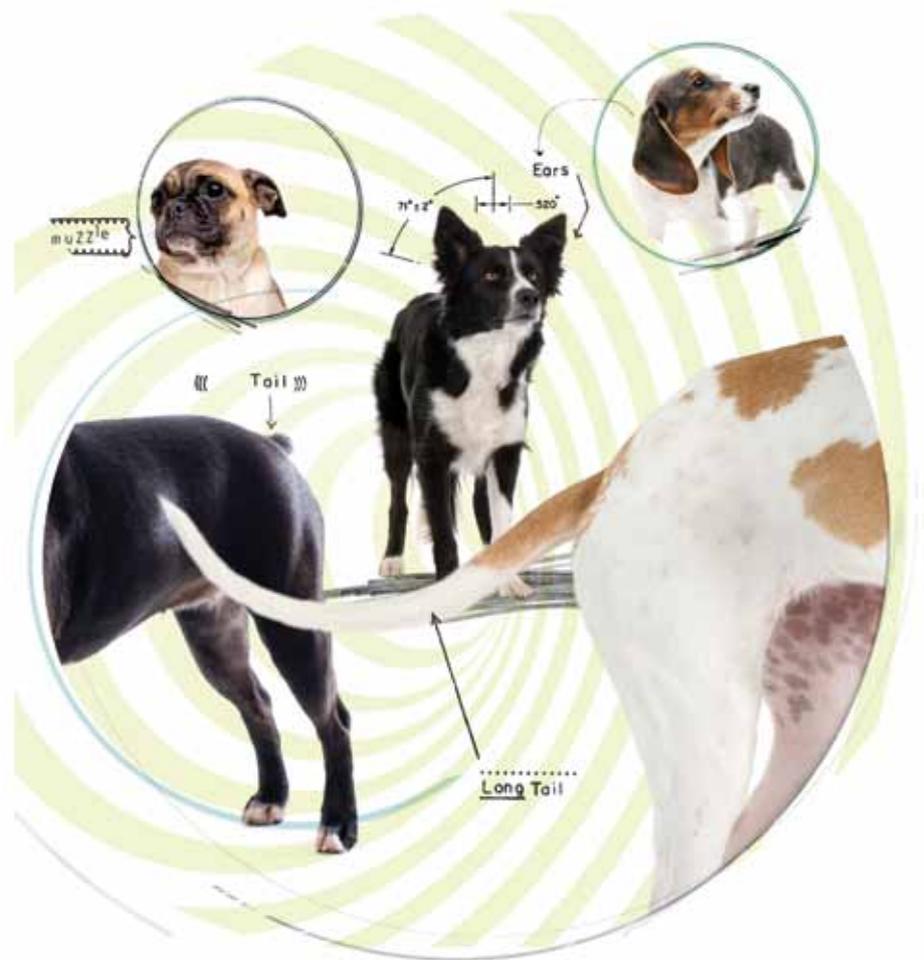
DOGS EXCEL IN THEIR ROLE AS our best friends. Spooning with us on a cold night, they seem almost hyper-domesticated. If there were a gold medal for “Achieving Domestication,” dogs would win it.

Some days, however, the story is quite different: chasing squirrels, digging up newly planted flowers, eating—then throwing up—grass, romping in a mud puddle post-bath, rolling in an overripe carcass. At these moments, we’re apt to look at our four-legged companions and say, “Really? You’re domesticated?”

And, of course, they are. This mixture is what makes dogs, dogs—one minute, dressed in a Superman costume and the next, shredding and eating said costume.

People often cite life experience and breed when trying to account for the ways dogs behave. Who hasn’t heard, “He’s a rescue and was probably abused—that’s why he’s shy,” or “She’s a Labrador Retriever, so she always has a ball in her mouth”? Dogs of unknown origin are described in a similar fashion, relative to their possible breed identities: “Petunia kind of looks like a Chihuahua, but she definitely has that Border Collie eye.”

According to Christine Hibbard, CTC, CPDT-KA and owner of Companion Animal Solutions in Seattle, Wash., when associating a dog with the “look” or “behavior” of a particular breed, it’s important to remember that “the way dogs look and their actual



genetics can be very different.” That, at least, is what studies are showing. As Victoria Voith, DVM, PhD and board-certified veterinary behaviorist at Western University of Health Sciences in Pomona, Calif., explains, “Mixed-breed dogs are a collage of features of their ancestors. So much so that they often don’t look like any of their immediate parents or grandparents. In fact,

they may look more like other breeds.” DNA tests often reveal that dogs are not simply a cross between two purebred parents. Instead, tests come back as 25 percent of this, 12.5 percent of that and a pinch of a few others. Since a dog’s looks and his genetic code can be on very different pages—sometimes in different books altogether—attributing a dog’s behavior to its “look” can some-

times be a faulty assumption.

What about purebred dogs? Do these dogs from concentrated breeding pools give clues about why dogs act as they do? The AKC and other breed-certifying organizations certainly ascribe global attributes to breeds: The Schipperke is confident and independent; Boston Terriers are friendly and lively; Chows are independent and aloof; Clumber Spaniels are gentle, loyal and affectionate.

Breed standards, however, are simply guidelines. As Denise Herman, CTC, lead trainer and founder of Empire of the Dog in NYC, says, "When you get a puppy of a particular breed, people think it's a blank slate, but it's really an unknown slate. Breed gives an indication of where that unknown slate may go, but not all Border Collies herd, not all Huskies pull sleds and some Chows like everyone equally. A puppy of a particular breed is an unknown slate with the possibility of those characteristics."

NO TWO ALIKE

While genetics get a dog started, ontogenetic (developmental) factors such as environment, learning and individual life experiences make each dog who he or she is. No two dogs on the planet will have the exact same life experiences, which means no two dogs, even of the same breed, will have the exact same personality or responses to similar situations. Dogs are as unique as snowflakes!

The controversial practice of dog cloning provides a great example of the limits of behavior assessment based on genetics. *In Dog, Inc.*, Pulitzer prize-winning investigative reporter and Bark contributor John Woestendiek explains how, after spending \$20 million to clone their beloved dog Missy, Joan Hawthorne and John Sperling found Missy's successor different from the original. "Missy was robust and completely calm. Missy wouldn't come through my home and knock over every wine glass ... They're not at all alike," says Hawthorne. Their genetics were the same, but personalities? Not so



much. Even clones aren't clones.

While genetics and life experiences certainly contribute to who dogs are, they're not the entire story. The other part of the picture is in plain sight.

Breed standards specify required physical attributes pertaining to the tail, the ears and the coat, among other things. Most of these individual attributes, of course, appear across breeds and even in dogs in general. As a result, dog physical appearance—and its implications for how dogs communicate and how they are perceived—can be examined in its own right.

The famous Russian silver fox experiment is a clear reminder that the behaviors animals demonstrate can in some ways be linked to the way they look. In a few generations, foxes bred for docility and friendliness toward humans

began to look quite different from those who were fearful of humans. As Stephen Zawistowski, PhD, CAAB and science advisor to the ASPCA, summarizes, "As the foxes became more tame, they began to develop a more 'dog-like' appearance, with piebald coats and floppy ears."

MIXED SIGNALS

How does this apply to dogs? Since dogs are the most physically diverse species on the planet, can we find a relationship between the way dogs look and the way they act?

The signals a dog has at its disposal may simply be a matter of basic equipment. As Zawistowski observes, "There are some things that are anatomically not possible for a dog to do, simply based on its anatomy. How can you

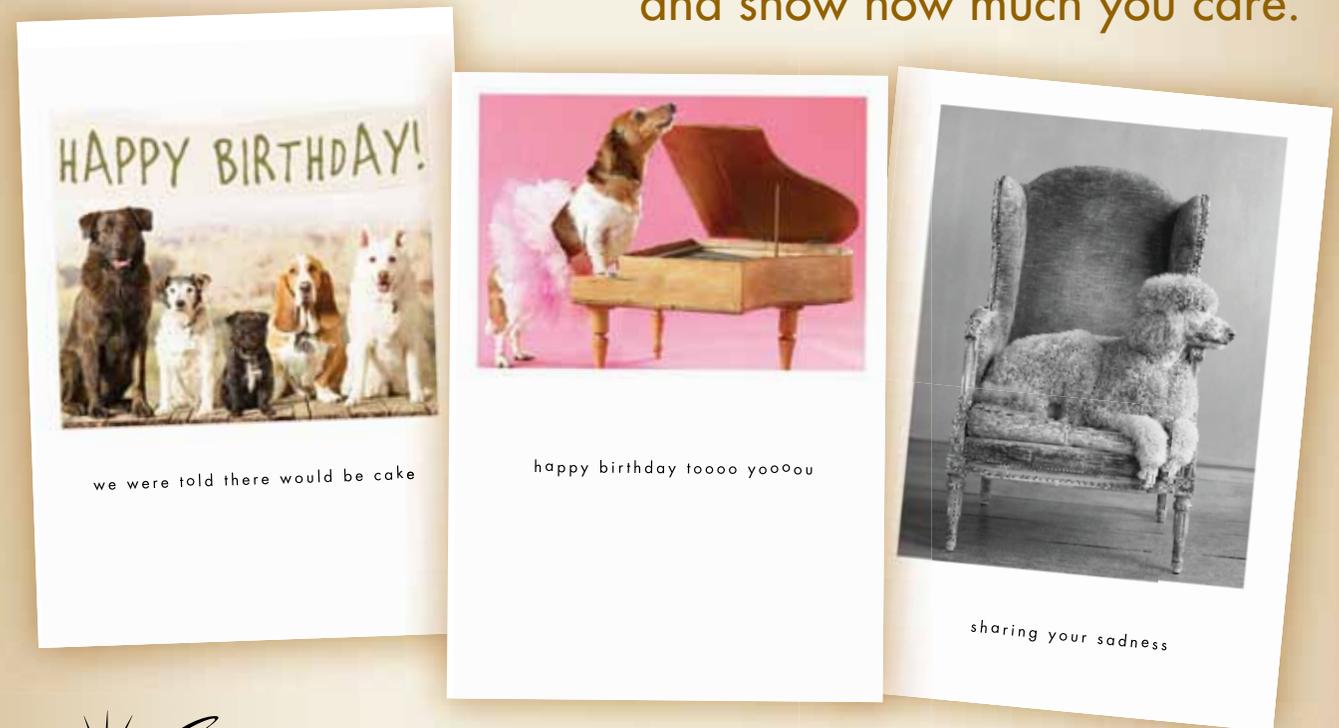
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tell if a Basset Hound has his ears up and forward? A Rottweiler can make a great lip pucker, but how on earth can a Bulldog pucker?” To be sure, the lack of overt behavioral signals does not suggest a dog is not feeling a particular emotion, or even that he might not adopt different strategies to convey them. But the implication is clear: The perception that Rottweilers are aggressive and Basset Hounds are laid-back could be a function of their physical features—and thus, the behaviors they can perform—rather than their mental processes.

With this in mind, could dogs’ physical appearance affect how they communicate? Or even, for that matter, how they’re treated by other members of their species? When a Great Dane comes across a French Bulldog, olfactory cues will reveal that the French Bulldog is, in fact, a dog, but does the Great Dane think to himself, “Hello my long-lost, thirty-times-removed cousin!” or “What the heck? You smell like a dog, but I don’t understand what you’re saying.”

Here to translate for the dogs is Jim Ha, PhD, CAAB, research associate professor and staff member of Companion Animal Solutions in Seattle, Wash.: “The way dogs look—their morphology—can definitely change the quality of their visual signals. Dogs who are more infantile in appearance—paedomorphic dogs like French Bulldogs, Pugs and Cavalier King Charles Spaniels—are nice examples of how we are handicapping the dog’s ability to signal properly. But we also find that dogs who are not paedomorphic in appearance can have trouble signaling and communicating with one another as well. Signaling difficulty is not only associated with paedomorphic dogs.”

The changes we’ve made to dogs’ physical appearance do not necessarily make it easier for dogs to communicate with one another. Ha suggests that many aggression issues stem from misuse of signals and miscommunication between dogs.

Voith has a similar assessment:



“Based on clinical experience, but not tested systematically, dogs that are fuzzy or black are often attacked by other dogs. I think that is because their social signals are not easily detectable—if at all. Subsequent to being attacked, black or fuzzy dogs become defensively aggressive towards other dogs, generally on leash.”

Herman agrees. “For any dog with a lot of fur or hair, you can’t see muscle tension, and it’s harder to read stiffness. Is a Komondor having a piloerection [raised hair along the dog’s back]? I have no idea.”

Or, take tails. Dog tails come in a spectrum of shapes and sizes. Are they important for dog-dog communication? Humans certainly take note of tails; when asked to assess dog behavior, we pay an inordinate amount of

attention to the tail (possibly because we do not have one). Does a Labrador look at a Corgi and think, “Umm, excuse me, sir. I’m having a hard time understanding you. I believe you’ve misplaced your rear-end thing.”

For another species commonly found lounging around our homes, tails are highly relevant. While a graduate student studying with noted ethologist John Bradshaw, Charlotte Cameron-Beaumont found that cats more readily approached, and approached in a friendly manner, a cardboard cat silhouette whose tail was in the “tail-up” position as opposed to those cat silhouettes with their tails down. Tails play an important role in cat-cat greetings (good luck, Manx).

When the dog researchers explored how dogs respond to other dogs’ tails,

they pulled out the big guns: a model robot dog resembling a Labrador Retriever. Apart from its tail, the “dog” was motionless. The researchers found that when the robot dog had a long wagging tail, it was approached more than when it had a long still tail, which as you probably assumed, suggests that the tail conveys emotional state, and that wagging is more inviting than not wagging. When it came to short tails, the story changed. There was no difference between how the robot dog with a short/still and a short/wagging tail was approached. It appears that the longer tails were most effective at conveying emotional information, and since short tails are hard to read, they might not be read at all.

For Herman, the implications are obvious. “When you dock tails, it takes away part of their communication signal. It’s the dog version of Botox. Ear cropping falls in the same category. Dobermans with cropped ears ostensibly look alert to other dogs. They can’t be read [accurately] because they can’t change.” It’s difficult to derive cues and information from cropped ears. If anything, their constantly alert position could mislead other dogs.

E’Lise Christensen, DVM and board-certified veterinary behaviorist in New York City, agrees. “I think cosmetic alteration could affect communication with other dogs. It certainly [has an impact on] assessments by owners, because they forget to look at the stump of the tail for movement and tension. Ears that are too cropped mean owners have to look for muscular movement at the skull level rather than the pinna, the outer part of the ear, where we customarily look. Flat faces make it more difficult to read small muscular movements.”

Herman suggests that taking note of a dog’s morphology can give owners a better appreciation for their dog. “It’s hard for other dogs to see that a Chow is really stiff, simply because he is [engulfed] in a ball of hair. It can be helpful for pet dog owners to recognize that what dogs have or do not

have at their disposal could add confusion to dog-dog communication. This appreciation could help owners empathize with their dog, instead of blaming their dog or feeling angry for the dog’s behavior.”

Hibbard reminds us that the issue at hand can be twofold. “If you can’t see the ears, that’s one problem. But if you can see the ears but the dog uses them wrong, that’s another problem.”

IT’S ALL ABOUT US

No dog story is complete without the human element. Could morphology play a role in the way dogs and humans interact? Dogs excel at being in sync with us, whether on the agility course or when they’re trying to figure out if we’re going into the bathroom versus the kitchen (a.k.a. Mecca). But sometimes, dogs are out of sync, which gives rise to television programs like Animal Planet’s *Bad Dog*.

Training, life experience, genetics and psychological disorders are the common suspects for “out-of-sync” behavior, but how a dog looks—or rather, sees—is often overlooked. In 2003, professor Paul McGreevy, DVM and researcher at the University of Sydney, and his colleagues discovered that, contrary to popular belief, all

HOME

My rescue dog
Is a skeptic. Unsure
Of my caresses, ever
Vigilant of my
Movements. The raised
Hand makes him flinch.
Out of nowhere, his
Eyes dart back and forth
Between my husband
And me, as we smile at him,
Say his name, *Finn, Finn,*
Lovely Finn. You found your
Home, have no fear. Your
Bowl, your bed, belong here.

—Ellen Birkett Morris



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canine eyes are not the same. Short-nosed dogs have what is called an area centralis, which allows them to focus more clearly on the world in front of them, like humans, while long-nosed dogs have a visual streak, which enables better peripheral vision. There's a physiological reason why a long-nosed dog would take off after something way in the periphery while you and a short-nosed dog continue to sit on a park bench wondering what the long-nosed dog saw.

It stands to reason that these differences would not only affect how dogs see the world around them, but also how they attend to us humans, and that's exactly what we find. Dogs are quite adept at following our pointing gestures, but brachycephalic (flat-faced) breeds, with their more forward-facing eyes, follow these gestures better than dolichocephalic (long-nosed) breeds. In turn, this sense of being seen and responded to accordingly (or not) may affect how we perceive and relate to dogs.

Undoubtedly, dogs are a composite of their genes and individual life experiences. But the physical features that they come with, or that we give them via docking and breeding, can contribute to how they interact with others and are perceived by dogs and humans alike. When thinking about why your dog behaves the way he does, it can be helpful to be superficial and look at what's right in front of you. **B**

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