

## My Dog's What?

I'm a self-confessed news junkie and watch the wide spectrum of political and informational TV programs. One of my favorite program formats is the "talking head" panel. One that I particularly like is at the end of the program that is hosted by Chris Matthews. At the end of his program he asks the panel to, "Tell me something I don't know." His guests answer with surprising little factoids that include lesser known news tidbits, obscure but fascinating facts, and things that leave you saying, "I can't believe that I didn't know that."

On the subject of our dogs, I recently had just such an "I can't believe I didn't know that," moment.

Maybe you know but I didn't, that the whiskers on a dog are called vibrissae. In fact, "vibrissae" is a word that had totally escaped my working vocabulary. We are all familiar with the whiskers that are found on the muzzle, above the eyes and sometimes under the chin of our dogs. From their bristly texture we know that they are structurally distinct from the hair on the body of the dog.

Beyond these basics there are so many things that I didn't know about vibrissae. Aside from the bristly, wiry feel of vibrissae, they are different from the body hairs in that they are innervated. The follicles at the base of the vibrissae are full of nerves that send information to specific areas of the dog's brain. Information that is sent through this vibrissae nerve highway plays a huge part of how dogs get sensory information about the world around them.

Vibrissae act as sensory antennae and give information about objects, openings, and orientation in space. There are studies and antidotal accounts of lessened awareness of spatial orientation when the vibrissae are removed.

Did you ever play the game with your dog where you blow a puff of air in their face? The reaction is a rapid pulling away and sometimes playful snaps. Unless you're blowing air into their eyes, what is happening is that you are stimulating the vibrissae. They react to the sudden movement of their vibrissae – their brains tell them that they are about to run into something but there's nothing there. The result is playful frustration when they realize you're teasing them with your game.

Studies have shown that dogs will reflexively flare their whiskers when they feel threatened and when they are poised themselves to take an offensive action. Their whiskers are put into action to gather as much information about the situation as possible.

There's no human equivalent for vibrissae because we are the only primates that do have these innervated hair like structures. Thinking about how a dog uses its senses takes on an added dimension when you consider the information that's processed via the vibrissae. We totally accept that our dogs' sense of smell is the paramount sense in their perception of the world. Vision takes a backseat to scent when a dog is seeking. (If you ever tried to point something out to a dog you come away saying, "It's right in front of him and he just doesn't see it."). Now add into the equation of how a dog perceives the world the information transmitted by vibrissae. It's mind boggling how dogs process information and how different it is from how we see the world.

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