

The Eyes Have It: Well, Dog Eyes Do But Wolf Eyes Don't

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Collaborators in the UK and US examined in detail the facial muscles, especially those around the eyes, of dogs and wolves ([references in blog - 1](#)). **It turns out that there are two prominent muscles that move the dog's eyelids that many wolves don't have**, or if they do, they are vestigial – smaller and weaker. The first one, called the *levator anguli oculi medialis* or LAOM for short (why do we still use Latin names for muscles?) lifts the dog's medial, the part of the eyebrows nearest the nose, eyebrow up. Epic is using those muscles in the image above. The second muscle, called the *retractor anguli oculi lateralis* or RAOL, pulls the outside corner of the dog's eyelid towards the ear, making the eye look larger and exposing some of the sclera, the white part of the eye. Those two muscles are shown in red in the image below, with the dog's facial muscles illustrated on the left and the wolf's on the right. Notice how, when the LAOM contracts, it makes the medial eyebrow lift and when the RAOL contracts, it makes the opening of the eyelid wider.

Let's find out how those two tiny muscles might have played a critical role in the evolution of the wolf into human's best friend. ([Illustration in blog](#))

Your Dog Is Watching

Dogs are remarkable in their ability to read our body language, including our facial features and expressions, to communicate with us. Dogs, but not wolves, establish eye contact with humans when they cannot solve a problem ([2](#)). And the gaze between humans and dogs results in a mutual release of [oxytocin, known as the "love hormone"](#).

"Human-eyes-ing"

Humans use eyebrow movements when they want to emphasize certain words or phrases

(3). Remember how your friends' eyebrows moved closer together as they tried to solve a math problem in school? That's how we got the term "knitted eyebrows." And surely you recall your parents' eyebrows lifting when, as a teenager, you were caught coming home hours later than you had promised! When people are looking for important points in others' speech, they tend to focus

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on the upper facial area, and particularly the eyes (4), and they pay attention to the same area when looking at pictures of dogs (5). One study showed that when humans lift their medial eyebrows, it makes them seem sad (6). Further studies have shown that humans are attracted to large eyes like human babies have (2) and that they have a preference for interacting with animals that have visible sclera (7).

How It All “Knits” Together

Let's see how these canine anatomical features and our focus on the eyes for communication might have played a role in how a fearsome predator evolved into that warm, furry creature that sleeps on your bed at night. Yes, the eyes definitely have it!

For blog references and photos, please go to www.AvidogZink.com/blog.



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