

ANIMAL BEHAVIOR

A Dog's Tail Wag Says a Lot, to Other Dogs

When dogs wag their tails, they can convey not just happiness but a wide array of emotions. As Italian researchers reported in 2007, a wag to the left indicates negative emotions; a wag to the right indicates positive ones.

Now the same team of scientists has found that no one knows this better than other dogs.

In a new study reported in the journal Current Biology, the researchers had dogs watch videos of other dogs wagging their tails. When watching a tail wag to the left, the dogs showed signs of anxiety, like a higher heart rate. When the tail went in the opposite direction, they remained calm.

Taken together, the Italian stud-

ies suggest that dogs, like humans, have asymmetrically organized brains, said Giorgio Vallortigara, a neuroscientist at the University of Trento and an author of the study. "The emotions are associated presumably with activation of either the right or left side of brain," he said. Left-brain activation produces a wag to the right, and vice versa.

Still, it is unlikely that dogs are wagging their tails to communicate with one another. "This is something that could be explained in quite a mechanistic way," Dr. Vallortigara said. "It's simply a byproduct of the asymmetry of the brain," and dogs learn to recognize the pattern over time.

DOUGLAS QUENQUA