

TALES FROM A DOG BEHAVIOURIST:

Pheromones

Dogs communicate with each other in a myriad of ways, many of which we do not or cannot easily observe or understand. Pheromones are just one way that dogs communicate with each other, and it is useful to understand how this works because it explains many behaviours that may seem confusing, pointless, or just downright disgusting.

Pheromones are chemicals that are released via secretion and excretion. In dogs, they are secreted by superficial skin glands, glands in the anal sacs, salivary glands, and excreted in urine. Dogs do not smell these chemicals with their noses, but with the vomero-nasal organ, or Jacobson's organ, which is located in the nasal cavity.

Many animals display something known as the flehmen reaction when they detect pheromones, especially those related to females on heat. They lift their head, slightly open the mouth and curl their upper lip backwards. This aids in transmitting the pheromone to the Jacobson's organ. However, dogs do not generally display this reaction.

Pheromones can be labelled as primary or secondary. Primary pheromones usually cause a slower and longer-lasting behavioural response. Sexual pheromones are a good example of this type. Secondary pheromones cause an immediate behavioural response: for example, alarm pheromones alert a group of animals to potential danger, allowing them to flee.

Pheromones serve a number of purposes in dog behaviour and communication. They are used by dogs to mark territory. Not only are pheromones excreted in urine, they are also present in poo, which has to pass the pheromone secreting glands in the anus. When dogs scratch the ground with their hind legs, they are secreting pheromones through glands in the skin of their feet, which marks their territory. When your dog sniffs another dog's poo or pee, let them do it; they're reading the autobiography of that dog.

Pheromones can also be used to establish the hierarchy amongst dogs. Pheromones contain a lot of information about a particular dog (gender, reproductive status, health), and this information can be used to ascertain which dog would be the best leader.

Dogs are natural trackers and pheromones can help them stay on course when following a trail. A dog that cannot find its food bowl in the morning can easily track a female on heat by following the trail of her pheromones.

During reproduction, pheromones act as a sort of 'pillow talk', stimulating arousal and aiding the mating process. Pheromones can even synchronise reproduction during a process called bio-stimulation: females come on heat in response to the presence of a male.

A mother dog releases pheromones that calm and comfort her puppies, making them easier to handle. Replications of these pheromones are found in products such as DAP (dog appeasing pheromone) and pheromone collars. These products are often recommended for anxious or stressed dogs because they mimic a scent that dogs associate with being safe and calm.

As has been mentioned, pheromones are useful for raising alarm and communicating danger to other animals. If a dog is nervous the first time it meets a strange dog, it may release these pheromones, which often results in the strange dog behaving peculiarly because it does not sense the same danger. This can lead to confusion, and sometimes aggression.

The most important part that pheromones play in canine communication is during greeting rituals. When dogs meet, they sniff each other's bottoms, genital areas, and sometimes mouths. This may seem disgusting to people, but it is a vital part of dog society, and it is unwise to stop dogs from doing this. They are sensing each other's pheromones, which tell them everything they need to know about that dog. They can recognise friends, enemies, and even relatives by detecting these chemicals.

The importance of pheromones in canine society cannot be underestimated. Without these chemicals, and the biological tools to detect them, dog communication would break down. Understanding this form of communication is another step in understanding your best friend!

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