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## **PRESS RELEASE**

### **Village dogs match pet dogs in reading human facial expressions**



**Photo credit:** Giulia Cimarelli

A new study, published in *PeerJ Life and Environment*, conducted by Dr. Martina Lazzaroni (University of Veterinary Medicine, Vienna), Dr Joana Schar (University of Vienna) and colleagues, has shed light on the cognitive abilities of village dogs in understanding human communication. The research, which aimed to explore the impact of the domestication process on dogs' behavior and cognition, has yielded fascinating results, highlighting the importance of studying free-ranging dogs as representatives of the broader dog population.

Previous studies examining dogs' cognitive skills in understanding human communication primarily focused on pet dogs. While pet dogs serve as valuable models, they represent only a small fraction of

the global dog population. In contrast, free-ranging dogs, who continue to experience selective forces of domestication, offer valuable insights into the evolutionary impact on dogs' behavior and cognition.

Despite the limited number of studies conducted on free-ranging dogs, particularly village dogs, the findings have been nothing short of intriguing. Researchers have discovered that village dogs exhibit a strong inclination towards social contact with humans and demonstrate an understanding of certain aspects of human communication.

In this recent study, researchers sought to explore the ability of village dogs to decipher subtle human communicative cues, specifically focusing on human facial expressions. To compare their findings with those of pet dogs, who have already exhibited evidence of this social skill, researchers conducted a test mimicking a real-life scenario.

During the experiment, the researchers repeatedly performed different facial expressions, such as neutral, happy, and angry, while in the presence of food. Eventually, the food was dropped on the ground. The results revealed that both village dogs and pet dogs were capable of distinguishing between subtle human communicative cues. Notably, the subjects exhibited a higher frequency of aversive gazes, such as looking away, in response to the angry facial expression compared to the happy expression.

However, the study did not yield other significant behavioral effects across the different conditions, likely due to the low intensity of the emotional expressions used. Nevertheless, researchers posit that village dogs' ability to discern human facial expressions could provide them with a survival advantage in human-dominated environments.

This research has opened new avenues of understanding regarding dogs' cognitive abilities and the effects of domestication on their behavior. By studying free-ranging dogs, scientists can gain valuable insights into the broader dog population's behavior and cognition, going beyond the limited scope of pet dogs.

These findings hold implications for various fields, including animal behavior, evolutionary biology, and human-animal interactions. The research team anticipates that further exploration of free-ranging dogs will contribute to our knowledge of the intricate relationship between humans and dogs, ultimately enhancing our understanding of animal cognition.

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