

## Why Dogs Are Man's Best Friend

What is it with dogs and people? Of all the domesticated animals, dogs are more likely to be chosen by humans as companions. Some people even think of them as their best friends, give them special names, confide in them, and write them into their wills. Dogs of course were bred over many generations to be useful to humans, for such things as hunting, herding, and protection, but few people in this modern age still rely on dogs for their practical utility. So why are we still so attached to them? Recent research on the relationship between humans and dogs is beginning to provide some answers.

Much of this research has been done at the Research Institute for Psychology in Bucharest, Hungary, where a fascinating series of studies has shown some unique mental capacities of dogs. For example, dogs are much better at making eye contact with their human owners than other types of pets. They also share attention; that is, if the owner looks away and points at an object the dog will actually look at where the person is pointing, unlike other creatures such as cats, wolves, or even monkeys. Dogs are also more likely to imitate the actions of their owners and follow verbal commands than other animals.

In one set of experiments published recently dogs were trained to retrieve an object placed behind a barrier (Location A) by their human trainer. After several retrievals from behind Location A the trainer then put the object behind an adjacent barrier (Location B). When the trainer told the dog to fetch, where do you think it went? If you picked Location B, you would be wrong. The dogs most often went back to Location A, where they had seen the object hidden many times. When the same experiment was performed with wolves (who had been raised by humans), the wolves went to Location B and correctly found the hidden object. So what's going on with dogs?

It turns out the dogs were acting more like humans, at least very young humans, than they were like wolves. Infants 10 months old or younger will also try to look for an object where it was placed frequently even if they see someone place it in a different place. This phenomenon has been called the Object Permanence Effect. It suggests that humans and dogs have the capacity to learn rules about where things are supposed to go, whereas wolves (and other animals) just pay attention to where things are put each time. As human babies get a little older (12 months) they are able to look beyond the rule and see that the object is in a new place. Dogs however stick to the rule.

That is, until someone new moves the object. In a follow-up experiment dogs and infants were trained to fetch (or just look for) an object hidden in Location A, then after several trials a new person put the object behind Location B. Ten month old infants continued to look at Location A but dogs switched and fetched from Location B. Why were the dogs smarter than the babies? The researchers suggest that dogs are very attentive to their human trainers, so that who is doing what is much more important to them than what is being learned.

Other experiments also reflect this canine attachment to humans. One involved owners bringing their dogs into a room where a dish of tasty food sat in the corner. As the dog approached the dish the experimenter played a recording of another dog growling. The dog immediately backed away and looked at its owner, as if asking for help. Barking is another means of communicating – not with other dogs but with their owners. Dogs have a much broader variety of barks than other canids such as wolves, and experiments have shown that dog owners are very adept at identifying the meaning of each type of barking. Thus it appears that dogs have been bred to communicate with their human masters much more than with other dogs. Think about that the next time you walk past a barking dog!

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