

Wolves found to be better at problem-solving task than domesticated dogs

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(Phys.org)—Monique Udell, a researcher with Oregon State University, has found via experimentation, that domestic dogs appear to have lost some of their problem solving abilities as a result of their long history with humans. In her paper published in the journal *Biology Letters*, she describes a study she carried out and offers some theories on why she

believe domesticated dogs may have lost some of their natural skills.

Udell notes that [dogs](#) have long been known to work with people as they go about their lives, in contrast to animals in the wild—one such striking behavior is their tendency to look back at their human companion when faced with a perplexing situation—seemingly asking for help. To learn more about this behavior, Udell enlisted the assistance of ten dogs that live as pets (and their owners), ten that live in shelters, and ten [wolves](#) that have been raised by humans.

Each of the animals was presented with a tasty sausage, which they were allowed to sniff, but not eat. Instead, the sausage was placed inside of a [plastic container](#) with a snap-on lid connected to a short length of rope. To open the [container](#), the animals needed to pull on the rope while holding down the container—a task Udell deemed relatively easy for animals as smart as dogs and wolves. Udell conducted the experiments in two ways, one where the animal was left alone with the container, the other where there was a human (their owners) standing close by.

Udell reports that none of the pet dogs was able to open the container and just one of the [shelter dogs](#) was able to do so, but eight of the ten wolves succeeded. The presence of a person nearby didn't help much, the same number of wolves succeeded and one pet did so. She notes that all of the dogs from both groups spent a lot more of their time looking at the person, than did the wolves. Next, Udell allowed a human to offer encouragement to the dogs—doing so increased the success rate of the shelter dogs, four of them opened the container, but still just one pet dog was able to do it.

The experiment is intriguing Udell notes, because all of the dogs and wolves were capable of opening the container, but only the wolves were truly motivated to do so, as demonstrated by a much higher level of persistence—the dogs on the other hand appeared much more ready to

ask for help.

More information: When dogs look back: inhibition of independent problem-solving behaviour in domestic dogs (*Canis lupus familiaris*) compared with wolves (*Canis lupus*), *Biology Letters*, Published 16 September 2015. [DOI: 10.1098/rsbl.2015.0489](https://doi.org/10.1098/rsbl.2015.0489)

Abstract

Domestic dogs have been recognized for their social sensitivity and aptitude in human-guided tasks. For example, prior studies have demonstrated that dogs look to humans when confronted with an unsolvable task; an action often interpreted as soliciting necessary help. Conversely, wolves persist on such tasks. While dogs' 'looking back' behaviour has been used as an example of socio-cognitive advancement, an alternative explanation is that pet dogs show less persistence on independent tasks more generally. In this study, pet dogs, shelter dogs and wolves were given up to three opportunities to open a solvable puzzle box: when subjects were with a neutral human caretaker, alone and when encouraged by the human. Wolves were more persistent and more successful on this task than dogs, with 80% average success rate for wolves versus a 5% average success rate for dogs in both the human-in and alone conditions. Dogs showed increased contact with the puzzle box during the encouragement condition, but only a moderate increase in problem-solving success. Social sensitivity appears to play an important role in pet and shelter dogs' willingness to engage in problem-solving behaviour, which could suggest generalized dependence on, or deference to, human action.

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