Dingoes, like wolves, are smarter than pet dogs

June 11 2010, by Lin Edwards

Dingo

(PhysOrg.com) -- Studies in the past have shown that wolves are smarter than domesticated dogs when it comes to solving spatial problems, and now new research has shown that dingoes also solve the problems well.

The dingo is considered a “pure” prehistoric dog, which was brought to Australia tens of thousands of years ago by the Aborigines. While they have in the past been associated with humans, they have adapted to surviving “wild” in the Australian outback. The dingo lies somewhere between the wolf, its ancient ancestor, and the domestic or pet dog, and has cognitive differences between the two. There has been little research done on dingoes, even though studies would aid in the understanding of the evolution of dogs, and it was unknown whether the dingo was more

"wolf-like" or "dog-like".

Researchers in South Australia have now subjected the Australian dingo (*Canis dingo*) to the classic "detour task," which has been used by previous researchers to assess the abilities of wolves (*Canis lupus*) and domestic dogs (*Canis familiaris*) to solve non-social, spatial problems.

The detour task involves placing a treat behind a transparent or wire mesh fence. The dog can see the food but cannot get to it directly and has to find its way along the fence and through a door and then double back to get the food.

Previous research has shown wolves are adept at solving the problem quickly, while domesticated dogs generally perform poorly and fail to improve significantly even after repeated trials. The wolves were also able to adapt easily when conditions were reversed, but pet dogs also generally fared poorly at this task.

Until now dingoes had not been tested, so lead researcher, PhD student Mr. Bradley Smith of the School of Psychology at the University of South Australia, decided to subject 20 sanctuary-raised dingoes (*Canis dingo*) to the V-shaped detour task, in which a V-shaped fence is the barrier to the treat (a bowl of food) placed at the intersection point of the V, and the detour doors swung either inward or outward.

The dingoes were randomly assigned to one of four experimental conditions previously used to test dogs and wolves. These were the inward or outward detour (with doors closed), inward detour (with doors open), and inward detour (with a human demonstrator). Each dingo was tested four times and then given a fifth trial with the conditions reversed.

The results showed the dingoes completed the detour tasks successfully, and they achieved fewer errors and solved the problems more quickly (in

around 20 seconds) than domestic dogs tested in previous research. Unlike domesticated dogs in previous studies, the dingoes did not look to humans for help, and only one dingo even looked at the human when solving the problem. This behavior was much more similar to findings with wolves than for pet dogs.

The findings were published in the journal *Animal Behaviour*. All tests were carried out at the Dingo Discovery Centre in Victoria.

More information: References:
-- dx.doi.org/10.1016/j.anbehav.2010.04.017
-- courses.media.mit.edu/2003spri … ciallearningdogs.pdf
-- dx.doi.org/10.1006/anbe.2001.1866