

## Artificial Intelligence Decodes Dog Barks

**A computer program distinguishes between individual dogs and the situations that prompted their barking.**

Posted: January 26, 2008, 5 a.m. EST

A computer program designed to analyze a dog's bark discerns canine communication better than humans, a new study says.

Scientists from Eötvös Loránd University in Hungary analyzed more than 6,000 dog barks from 14 different dogs barking in six different situations: responding to a stranger, a ball, at play, in a fight, on a walk, and when left alone.

The barks were initially recorded and uploaded into a computer. The program then analyzed unknown barks and categorized the sounds based on the initial recordings. The computer analysis was correct 43 percent of the time, categorizing at a level higher than mere chance.

The highest recognition rates were achieved when responding to strangers and fights, and the lowest rates were recorded when dogs were at play. Researchers suggest the results reveal that dogs in aggressive, friendly, or submissive states bark differently depending on their motivations.

A second experiment analyzed barks from individual dogs, and the program correctly identified dogs 52 percent of the time, prompting researchers to suggest that dog barks have features specific to individual dogs although the sounds are not discernable to the human ear.

The experiment opens the door for further research and understanding of animal communication, researchers said.

Results were published online in January's "Animal Cognition" journal.