

Why are Dogs a Man's Best Friend

We've all heard the phrase: Dog is man's best friend. But just how far will your furry friends go to show how much they care? We have rounded up some of the most tear-jerking stories of loyalty and friendship, as dogs around the world go above and beyond to demonstrate their love for their human companions.

Dogs have been man's best friends for 30,000 years - and now scientists think they know why. Canines respond to emotions in the voice in the same way that humans do, research shows.

The first study to compare the brains of humans with any nonprimate animal shows that dogs have dedicated voice areas in their brains, just as people do.

Crucially, dog brains respond to acoustic cues of emotion in the same way as people.

Attila Andics, leader of the Hungarian research group which carried out the study, said: 'Dogs and humans share a similar social environment.

'Our findings suggest that they also use similar brain mechanisms to process social information.

'This may support the successfulness of vocal communication between the two species.'

Recent research suggests what dog owners knew all along – that they do in fact experience feelings of love and affection.

Scientists at Emory University in Atlanta, Georgia, discovered that a part of the brain associated with positive emotions, is similar in dogs and humans.

They too used fMRI scanners to examine canine brain activity.

Using hand signals to indicate the dogs were about to receive a food treat, the researchers showed that the caudate nucleus, a part of the brain associated with positive emotions, was similar in dogs and humans.

If, as many scientists have argued in the past, it is all simply about [getting] food for dogs then the reaction in their brains would be the same no matter who or what is offering them the food,' said neuroscientist Gregory Berns.

'We hope to show that they love us for things far beyond food, basically the same things that humans love us for, like social comfort and social bonds.'

The research, published in the journal *Current Biology*, suggests that voice areas evolved 100 million years ago, the age of the last common ancestor of humans and dogs.

Canines were first domesticated by humans in Ice Age Europe up to 32,000 years ago, scientists think.

Genetic evidence discovered last year suggests the wolf ancestors of today's dogs were most likely tamed by hunter-gatherers.

For the latest study, Dr Andics and his colleagues trained 11 dogs to lay motionless in an MRI brain scanner.

That made it possible to run the same neuroimaging experiment on both dog and human participants - something that had never been done before.

They captured both dog and human brain activities while the subjects listened to 200 dog and human sounds, ranging from whining or crying to playful barking or laughing.

The findings show that dog and human brains include voice areas in similar locations in the brain.

Dogs still responded more strongly to other dogs, while humans responded more strongly to other humans, but there were striking similarities in the ways the dog and human brains reacted to those of the other species.

Dr Andics said: 'This method offers a totally new way of investigating neural processing in dogs.

'At last we begin to understand how our best friend is looking at us and navigating in our social environment.'