

CANINE CORNER

by Kathleen Crisley, CSMT, CTMT, SCMT

www.balanceddog.co.nz / www.doggymom.com



Love & our dogs

Valentine's Day — 14 February — is a celebration of love. This edition of *NZ Dog World* is the perfect time to review studies about our love for, and bond with, our dogs.

In 2019, for example, UK-based Agria Pet Insurance undertook a survey of pet owners: 56% said they fell in love with their pet within a half an hour of meeting them whereas 20% said it took them up to six months to fall in love with their human partner.

The role of oxytocin

The feeling of falling in love with a dog has a biological basis.

A research team at Azabu University in Japan explored the role of oxytocin in the human/animal bond, just one study of many exploring the role of the hormone.

Oxytocin, sometimes known as the hugging-hormone, plays a critical role in bonding a human mother to her baby. When a mother stares into her baby's eyes, the baby's oxytocin levels rise, which causes the infant to stare back into its mother's eyes, which causes the mother to release more oxytocin. The feedback loop continues, enhancing the bond.

The Japanese team recruited a group of dog owners and their dogs and benchmarked their oxytocin levels through urine samples taken before their tests. Owners were then asked to interact with their dog for 30 minutes. During this time, the owners typically petted their animals and talked to them while others gazed into each other's eyes from seconds to minutes. Urine samples were taken afterwards to measure oxytocin levels.

Mutual gazing had a profound effect on both the dogs and their owners. Of the study pairs that had spent the greatest amount of time looking into each other's eyes, both male and female dogs experienced a 130% rise in oxytocin levels, and both male and female owners a 300% increase.

Brain activity

Researchers also use magnetic resonance imaging (MRI) to understand how a dog's brain works, linking cognition, spoken language, body and sign language, and emotion. Functional MRI requires dogs to be trained to sit comfortably in the noisy MRI machine without sedation.

Dr Gregory Berns of Emory University initially used functional MRI to study how people make decisions, revealing how their brain reacted during the decision-making process. He then decided to explore whether dogs love us for more than the food in our pockets.

The functional MRI scans showed that dogs' brains were very 'fired up' when hot dogs were offered as treats, and when the hand signal for treats was used. Interestingly, though, the same area of brain also activated when the photos and smells of their owners were introduced. Berns is the author of the book *How Dogs Love Us*, a must-read for dog owners.

The friendly gene

Evolutionary biologists such as the group led by Dr Brian Hare of Duke University have isolated genetic code which they have termed 'the friendliest gene' leading to the conclusion that our dogs have the innate ability to bond with us because they have evolved to be friendly and cooperative with humans.

The scientific study of dogs using the disciplines of genetics, cognition, and biology is a growing field; there are many more research groups working with dogs today than there were even 20 years ago. I follow research into dogs on a regular basis; head over to **DoggyMom.com** and click the link for the Research category of posts. At time of writing, there are over 450 posts about research.

With so many experts working in the field of dogs, I expect our understanding of how dogs love us and why we love them to grow in the coming years. 🐾

