

DOODS SCIENCE PROVIDES COMPELLING EVIDENCE THAT WHAT WE KNOW IN

by JEN REEDER

illustrations PEP BOATELLA

OUR HEARTS IS TRUE.

cientists were once skeptical about whether dogs experience emotions like love. But recent research strongly suggests they do. In fact, Clive Wynne, Ph.D., founder of the Canine Science Collaboratory at Arizona State University and author of Dog Is Love: Why and How Your Dog Loves You, contends that what makes our canine companions special is not their intelligence but their enormous capacity for love.

"What so many dog owners suspect is thoroughly established by science of many different kinds—it really is love for its own sake," Wynne says. In one experiment, dogs who haven't seen their owners or food all day are offered the choice between going to the owner or receiving food—and the first thing they choose is their owner.

Wynne and his team are also studying whether dogs will try to "rescue" owners in distress. In an experiment, owners hide in special boxes and cry out. Initially, all of the dogs become agitated but don't always try to open the boxes. However, once dogs are taught how to open the boxes, in subsequent experiments, every dog tries to rescue the owner.

"All of this adds up to a picture that the dogs are very upset that their owner is upset and they really want to try to do something," Wynne says. "If they can figure out what to do, then they help."

While similarities exist between human and canine love, the love isn't identical. Wynne notes that although dogs' love is sincere and strongly felt, it's more flexible: Dogs are better able than humans to move in and out of loving relationships. While many people think they need to adopt a puppy to have the strongest possible emotional connection with their dog, Wynne says that's not really true.

"Adult dogs, even older dogs, can and do form strong, loving connections to people even though they've been through other human-loving relationships in the past," he says.





Nicholas Dodman, BVMS, DACVAA, DACVB, professor emeritus at Tufts University and cofounder of the Center for Canine Behavior Studies, says one of the best indications that dogs love us involves research into the love hormone oxytocin. Studies show that when bonded dogs and humans stare calmly into one another's eyes, oxytocin is released in both species.

"This hormone powerfully flows through the body and is responsible for the long-lasting bond," Dodman says.

Ancient Greeks had multiple words for love, including physical love, longstanding love, and playful love between children. Dodman believes agape best applies to dogs: selfless, unconditional love.

DOGS AND HUMAN EMOTIONS

Dodman sees signs that dogs also possess empathy, because canines often notice when an owner is ill or upset and lie on the bed beside them or lick their owner's face.

"They know something is not right, and it's almost like they're trying to help, which is, to my mind, empathy," he says.

Jennifer Cattet, Ph.D., founder of Medical Mutts—an Indiana-based nonprofit that rescues dogs and trains them as service dogs—says dogs can smell emotions. Just as she and her team have taught dogs to detect the scent associated with a seizure or blood sugar change while training them to become seizure- or diabetic-alert dogs, they've trained dogs to respond to emotional reactions.

To do this, future handlers use cotton balls to swipe their foreheads or the back of their necks when they're feeling angry or anxious as well as when calm. Using these samples, Medical Mutts has trained about 40 dogs of different breeds and mixes to detect changes in emotion and become psychiatric service dogs. If a handler has a panic attack, the dog can help in various ways, such as offering a distraction or pressing a button that calls for help.

"I think they're naturally wired to pick up on those cues that tell them we're not doing so well, whether we're sick or not feeling well emotionally," Cattet says.

California resident Greg Niklas partnered with Grayson, a psychiatric service dog from Medical Mutts, for assistance with anxiety, depression, and PTSD. Even when not wearing his work vest, Grayson finds Niklas every 10 minutes to check in.

"It's something he's chosen to do even off the job," Niklas says. "I absolutely think he loves me."

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Maria Goodavage, author of *Doctor Dogs: How Our Best Friends Are Becoming Our Best Medicine*, met service dogs with various jobs in nine countries while researching the book. The dogs she observed often seemed like a combination of nurse, parent, and best friend, and they clearly went above and beyond their training.

"It sure looked like love and even empathy to me," Goodavage says.

Wallis Brozman, outreach program specialist for the nonprofit Canine Companions for Independence, has a disability that impacts her muscular system. Her first service dog, Caspin, saved her life just four days after she and Caspin arrived home, when her muscles went into a spasm during a late-night walk. Thinking they'd only be outside for a few minutes, Brozman hadn't brought her cell phone and Caspin wasn't wearing his harness.

"He offered me his collar and gently pulled me back to my apartment, nudged open the door, turned on the light, and licked my arms until the spasms resolved," she says. "That intuition and care persisted through his seven years of service and nearly four years of retirement. Even being out of service, he always tries to help in emergencies."

Valeri Farmer-Dougan, Ph.D., director of the Canine Behavior and Cognition Laboratory at Illinois State University, says there's "no doubt" dogs love. She specializes in training deaf, blind, and deaf-blind dogs with positive reinforcement, sign language, and touch. Once people communicate effectively with the dogs, their behavior issues are usually resolved—and they can develop even stronger bonds with their caregivers.

TRUST AND COMMUNICATION: BUILDING BLOCKS OF LOVE

Margaret M. Duxbury, DVM, DACVB, partner at Veterinary Behavior Specialties of Minnesota, agrees with other experts that reward-based training—not punishment—is a crucial



way to develop a loving bond with a dog. She says trainers and pet owners should let go of the idea that humans need to be dominant over dogs, which destroys trust.

Instead, Duxbury suggests building a trusting relationship by learning to recognize canine body language in an effort to better communicate with our pups.

"In the best relationships, communication flows both ways," she says.

One example of a canine stress signal is subtle: a dog looking away from a social interaction. "It might be half an inch, but their eyes go to the side," Duxbury says. "It is so commonly missed [by the human] and it's so

commonly used by dogs as a 'stop, I'm uncomfortable' signal."

Adults and children can miss that particular sign and continue with behavior the dog finds uncomfortable, such as hugging or kissing, which sometimes leads to bites. So when hosting a party or a casual get-together, keep in mind that dogs may not want to host along with you. Duxbury says that her dogs, Winnie and Tug, are often content to hang out in the hallway when her family entertains guests.

"I think a lot of people get into trouble because they have people over and think, *The dog is part of the family.* So the dog's out and about, and the dog doesn't know who these people are," she says. "[The dog] is overwhelmed."

In terms of communication, Duxbury notes that dogs respond very strongly to visual signals.

"People are talkers, of course, so they often tell the dog to 'come,' but their body says, 'Run away!' Or they're telling the dog to stop something, but that doesn't tell the dog what to do."

For instance, if a dog jumps on a person, they may try to push him down, which actually encourages jumping. It's better to use a visual signal while asking the dog to sit instead.

Ultimately, dogs do an expert job of earning the role of man's best friend through their trust and love.

"I think it's important that we don't fail them in return," Duxbury says. "We need to return the favor."

