



CANINE CONNECTIONS

by Susan Houston Klaus

THE NEXT TIME YOU STOP TO PET YOUR NEIGHBOR'S LABRADOODLE OR CUDDLE ON THE COUCH WITH YOUR OWN, SAY, GOLDEN RETRIEVER OR ENGLISH BULLDOG, CONSIDER THIS:

THAT COMFORT WE DERIVE FROM THE DOGS IN OUR LIVES ISN'T JUST PART OF A ONE-WAY RELATIONSHIP: DOGS, TOO, PICK UP ON THE EMOTIONS WE'RE FEELING — POSITIVE AND NEGATIVE.

Exactly when that happened in the evolution of dogs is a bit fuzzy. Traditionally, it was thought that domestication happened between 40,000 and 20,000 years ago. About three years ago, though, a research team narrowed it down more precisely. According to these scientists' data, domestic dogs originated in two places — Eastern Eurasia and Western Eurasia. The analysis pinpointed a “domestication event” with Asian wolves at least 12,500 years ago and with European wolves, at least 15,000 years ago.

Additional science suggests that the wolf-to-dog transition happened as wolves became hip to the fact that if they were friendly they would be spared by humans.

Funny things started happening. The wolves developed floppy ears, wagging tails and softer coats.

And here's the really compelling bit — their psychology started changing, too. As they evolved, they gained an ability to “read” human gestures.

That unique ability further strengthened their relationship with humans and along the way helped dogs achieve best-friend status.



HORMONAL SYNCHRONIZATION

But is there something happening physiologically between people and pooches that makes this bond so close?

In 2014, a team of UNO researchers was one of the first to observe a connection between species — formally, a hormonal synchronization — when an acute stressor was involved.

Led by doctoral student Alicia Phillips Buttner, the group also included neuroscience and psychology student Breanna Thompson; Rosemary Strasser, director of the neuroscience and behavior graduate program; and Jonathan Santo, an associate professor of psychology and expert in structural equation modeling (SEM).

Buttner says she wanted to see if there was a synchronization between owners or handlers and their dogs, and if it was dependent on their performance or on the behaviors the humans were engaging in with their dogs.

The study followed 58 handlers and 58 dogs through a series of dog agility competitions. Each human and dog provided saliva samples before and after; both groups' samples were later measured for cortisol.

These competitions are inherently stressful and designed to be completed quickly without mistakes. Each handler used cues to guide their dog through the course, then assessed their dog's personality and rated their performance.

Applying SEM, an interesting finding emerged: Elevations in the handlers' cortisol levels were associated with increases in their dogs' cortisol levels.

"Some kind of stimulus was being conveyed to the animal about the emotional state of their owner," whether that was stress or arousal, Strasser says.

"Based on the findings, we don't necessarily think that it's one directional. It's not just us influencing our dogs, but their behavior could be influencing us as well."

It's not unlike the relationship between a mother and an infant, she says.

"Because they're living together and spending time together, a bonded pair or mated pair will do the same thing."

SENSING STRESS

The study's findings, originally published in the journal of Physiology and Behavior, continue to generate interest, says Santo.

"We're still getting calls regarding interviews about this paper and the follow-up papers that have been done replicating these findings."

One such follow-up appeared in Scientific Reports in June 2019. A study by Swedish researchers confirmed what the UNO team had found — that a dog mirrors its owner's stress level.

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They took it a step further to look at personality traits of the owner. The study looked at cortisol levels in saliva and studied hair cortisol levels in humans and dogs, giving them a long-term, six-month picture of what's going on physiologically.

For the UNO team — all dog owners and dog lovers themselves — their study results reinforce what they instinctually knew.

Thompson, who received her bachelor's degree in 2013, says the findings have made her more aware of her stress levels around her dog, Saber, whom she adopted from the Midwest Dog Rescue Network.

"If I need Saber to be in a calm state of mind I know I need to be in a calm state of mind. It's really made me more mindful of the energy I project into the world."

Buttner graduated in 2017 with her Ph.D. in psychology neuroscience and behavior. Today, she's the director of animal behavior at the Nebraska Humane Society.

For her, the most important takeaway is there's something in the human-dog connection that dogs can sense.

"It's either very subtle behaviors that we might not even be picking up on or even things that we're transmitting through our body chemistry," she says.

At the Humane Society, Buttner has incorporated these results into staff and volunteer training.

"It's being aware that there is this bidirectional exchange of emotions," she says. "We want to be more confident and relaxed when working with the dogs."

"We want to be picking up on their body language and adjusting our approach based on that, while still being mindful of how they're feeling."

Dog mom to a 12-year-old Shetland sheepdog, 4-year-old Basset hound and a 1-year-old wirehair dachshund, Buttner also has applied the study's findings at home.

"Between what I do here at work and my background in this research, I'm much more mindful of if I'm feeling stressed I need to be more proactive with spending quality positive time with them, relaxing with them and doing things that are fun for them." 🐾



LEARNING THE LANGUAGE OF DOG

Dog language and behavior isn't intuitive, says Alicia Phillips Buttner, director of animal behavior at the Nebraska Humane Society. "We know so much about everything else that we deal with in our daily life, probably much more than we actually know about our dogs," she adds.

Buttner, who has three UNO degrees, including a Ph.D., offers this advice to better understand what's happening that your dog can't put into words:

- Take the time to learn what works. Two ways you can actually impact your dog is by studying their body language and learning how to train your dog using positive methods.
- Use positive reinforcement to make them feel more comfortable.
- Go for a walk. Or spend time just cuddling. Those things can reduce stress by releasing oxytocin, the hormone that's released with positive social interactions.
- Focus less on things you can't control — there's a lot out there that you can. Everyone benefits by understanding more about dogs, our relationship with them and how they learn.
- Looking for helpful tips about how to better communicate with your canine? Check out ispeakdog.org. 🐾



UNO GRADUATE HELPS DOGS IN NEPAL

In Angeela Shrestha’s hometown of Kathmandu, Nepal, it’s common to see stray dogs roaming the streets in this city of a million people.

But Shrestha (above, far left) was concerned about the stereotypes associated with these animals.

“Here in the city, it’s not like people don’t like dogs,” she says, but many people consider them dangerous, a source of rabies, and a threat to public safety.

She moved to Omaha in 2013 to pursue her master’s degree in communication studies and research. Her first semester, she saw a disturbing video of police killing a stray dog back home.

The image left an imprint on her — also presented an opportunity to change the mindset of the people of Kathmandu about the dog population by focusing on educating young people.

Shrestha founded Project Humane Nepal in 2014, running it remotely from Omaha. The organization provides educational workshops and school visits for students ages 6 to 16.

Today, her team also delivers services that include community outreach, rescue and treatment, vaccination programs, and spaying and neutering.

“We’ve seen a lot of differences in the kids’ attitudes before and after” they take part in the program, she says. Before they begin, the team asks the students to write their perceptions about stray dogs.

“The majority of the notes are very negative. You can tell a lot of the kids are very scared of the dogs. But afterward, the notes show they feel very motivated and empowered to do something for the dogs in their neighborhood, if not for every dog out there on the street.”

See more at projecthumanenepal.org

GIVING SHELTER DOGS A LEG UP

Blackburn Alternative High School students also have joined students from UNO Professor Rosemary Strasser’s Laboratory in Psychology course to participate in the P-16 service learning project “Reality Bites.”

Students met at the Nebraska Humane Society to train dogs using conditioning behavior modification techniques. Students trained adoptable dogs to be calm and quiet when potential families came through the kennels.

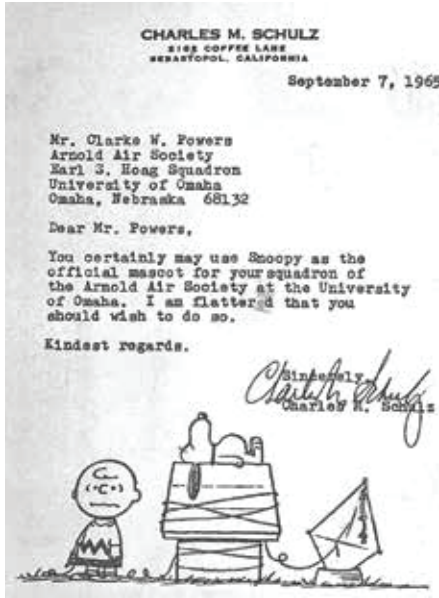
The positive reinforcement the dogs get for showing desirable behaviors benefits them, Strasser says. “It helps them physiologically be able to cope with the stressor of being in the shelter and also makes them more desirable for people who are visiting the shelter and seeing the dogs.”

The project, she adds, also benefits the Blackburn and UNO students because they witness how positive reinforcement can significantly change behavior and emotional state.

UNO began the project in 2011, and it’s got bite — many of the dogs involved in the project have been adopted.



PUTTING SOME BITE INTO THE WOLFPACK



Did you know that in 1965, “Peanuts” illustrator Charles Schulz approved ROTC’s use of Snoopy as official mascot of Earl S. Hoag Squadron, Arnold Air Society, Detachment 470, aka, “The Wolfpack?”

NBDC HELPS BUSINESSES REACH PET LOVERS

Plenty of dog-related endeavors have found their footing with help from the Nebraska Business Development Center.

The program provides a variety of assistance to all types of businesses, all at no charge. Services include market research, identifying industry trends and financial benchmarks, and finding funding.

NBDC consultants work with animal-related businesses ranging from dog daycare, grooming and vet clinics to supplies, food and unique products. Here’s a look at three Nebraska businesses NBDC has assisted:

DOGonGEAR LLC
Dawn Howell’s family business sells unique canine protective hunting vest and dog diaper wraps. She originally marketed her dog products on Amazon, as well as her own website. As she continues to grow the market, she’s also added sales on Etsy. dogongear.com

The Green Spot
Co-founders Jennifer Haines and Jessica Ellis run this Omaha-based retailer that sells natural, holistic and eco-friendly foods, treats and toys for dogs and cats, and provides advice on nutritional needs. They also offer a grooming service and a self-serve dog wash. In 2013, The Green Spot added online sales and a pet food delivery truck dubbed "Off the Chain!" greenspotomaha.com

Paws-a-Palooza
In North Platte, Dawn Brosius operates this dog daycare, overnight boarding and “Pup Tart” treat business. facebook.com/NPPawsAPalooza

Looking to start, or grow, your dog- or animal-related business? NBDC consultants are available in 10 locations across Nebraska.

To find the office nearest you and request a meeting, go to unomaha.edu/nebraska-business-development-center/about/locations



POOCHES AT THE PITCH

It was the dog days of ... September again at Al Caniglia Field as UNO held the second annual Pooches at the Pitch. Maverick fans got to take in a men’s soccer match right next to their best friend with reserved seating on the berm overlooking the pitch. Those who showed received an Omaha-branded travel water bowl.

GRUMPY ON THE GRAM

UNO graduate Kirby Kaufman (2012) is social media manager for Infogroup in Papillion, but the biggest account he manages is his ... dog’s.

Kaufman and his Shiba Inu Chester have developed a robust following on Instagram with the latter’s account @grumpysheeb. As of early November it had more than 22,000 followers who take in Chester’s antics.

“He looks naturally pissed off, but he does smile, too,” Kaufman told the Gateway newspaper, adding that the Nebraska Humane Society rescue’s “got a ton of behavioral problems.”



FIRST DOWN ... AND TEN TO GO

Thanks to “First Down,” a brown female terrier owned by then-student Tippy Tyler, the Omaha University football team won big in 1935. First Down made its debut as the team mascot in a 19-6 win over Wayne sporting a white jersey with scarlet and black stripes – previously one of player Leo Pearey’s football socks. He attended all games that year, helping OU, then known as the Cardinals, to the

Nebraska Conference championship. “She has been taught to bite only opposing players and to remain quiet while being smuggled into buses, trains and hotels,” went a Gateway article. Later, First Down gave birth to five puppies — each taken by an OU player. Among the pups was “Ten to Go.”