1. Title: Dogs Have Feelings Too (Science Proves It)
2. Sub: Do you know how your dog is feeling? 12 scientific studies reveal surprising facts about canine emotions.
3. Intro: Emotionally, humans and dogs are surprisingly similar. The brains of dogs, like those of humans, have regions to process complex emotions like jealousy, grief and empathy. [1]
4. Heading: Emotional Development (Take out Human Emotions and Dog Development columns)
	1. Subheading: A dog’s thought patterns are about as complex as those of a 2-year-old child, and their emotions develop in very similar ways. [2]
	2. Child vs. Dog chart

#1 Dogs Can be Optimists or Pessimists

Loneliness can put a dog in a bad mood that persists even after their owners return, suggesting that they develop negative expectations about the future. [3]

Researchers placed a food bowl a little away from its usual spot. Dogs that were in a good mood ran expectantly to the bowl. Sad dogs, however, took longer to approach the bowl, apparently because they didn’t expect it to contain food…in other words, they saw the bowl as half empty. [3]

#2 Dogs Get Depressed

Electrical shocks were administered to dogs in a study in the 1960s (which would be unethical today). 60% of the dogs gave up trying to avoid the pain and stood still while being shocked. Just like us, when dogs see their situation as helpless, they become depressed. [4]

#3 Dogs Experience Jealousy

Dogs are expert social observers, and they know it when they’re being treated unfairly. In a recent study, dogs became jealous when their owners played with an animatronic dog. The dogs’ jealousy wasn’t triggered when their owners pretended to give affection to an inanimate object like a book. [5]

#4 Dogs Sympathize with Crying Strangers

Researchers placed dogs and their owners in a room with a crying stranger. The dogs consistently approached the stranger and expressed sympathetic behaviors like touching, nuzzling and even licking. Dogs even left their owner’s side to try and comfort the crying stranger, putting the stranger’s needs above their desire to be close to their owners.

#5 Dogs Bark To Show Their Feelings

A researcher analyzed recordings of over 6000 barks for common tones and rhythms. He found barking to be it’s own language. Dog barks express feelings like loneliness and fear. Barks are situation-specific and there are different ones for play, walk, ball, stranger, fight, and wanting to be left alone. Humans can identify the meaning of a dog’s bark too. Even children who did not live with a dog were able to distinguish happy, sad and angry barks.

#6 Dogs Feel Love

When a mother gazes at her baby, they both experience a rush of the oxytocin, the so-called "love hormone" that produces good feelings and encourages bonding.

Researchers measured oxytocin in dogs and their owners before and after 30 minutes of playing together. Oxytocin levels rose 130% in dogs and 300% in their owners, proving that the brains of humans and dogs respond to each other.

#7 Dogs Can Read Human Facial Expressions

Researchers trained dogs to distinguish between happy and angry expressions. Dogs were then shown photos they had never seen of happy and angry faces. In every case, dogs were able to tell the difference, verifying that they can "read" human emotions.

#8 Dogs Experience Grief

Two thirds of dogs that had recently lost a close companion showed visible signs of grief. Like humans, bereaved dogs whimpered, lost their appetite, became clingy with their owners and lost interest in normal activities. Dogs that received consolation from their owners recovered significantly more quickly than those that did not.

#9 Dogs Laugh

Researchers analyzed recordings of dogs at play and found a key difference in regular pants and pants for laughter. They recorded the laugh pants and when they replayed them for 15 puppies, they burst into joyful movements. The laugh track was played again for distressed shelter dogs who displayed less stress behaviors after listening.

#10 When Someone is Rude to Their Owner Dogs Take it Personally

In another experiment, a dog, its owner and a stranger were placed together in a room. The owner then performed tasks that required assistance, but the stranger did not help. When the stranger offered the dog a treat, it refused. Loyalty to the owner overrode the dogs’ desire for a reward, causing them to decline the stranger’s gesture.

#11 Dogs' Attachment to their Owners Goes beyond Simple Rewards

Brain imaging has demonstrated that an owner’s scent activates a dog’s caudate nucleus — the bran region that lights up when we fall in love. Even without expectation of food, the owner’s scent still triggered the same response. They concluded that dogs really do love us for who we are.

#12 Dogs Understand the Emotions of Other Dogs

Contrary to prior belief, dogs are capable of interpreting each other’s emotional state. Dogs can copy facial expressions and body language of other dogs instantly upon meeting them. This ability seems to have evolved in dogs to enhance survival in the highly social world of the pack.

1. Berns, G. (2013). How dogs love us: A neuroscientist and his adopted dog decode the canine brain. Houghton Mifflin Harcourt.
2. https://www.psychologytoday.com/blog/canine-corner/201303/which-emotions-do-dogs-actually-experience
3. Michael Mendl, Julie Brooks, Christine Basse, Oliver Burman, Elizabeth Paul, Emily Blackwell, Rachel Casey, Dogs showing separation-related behaviour exhibit a ‘pessimistic’ cognitive bias, Current Biology, Volume 20, Issue 19, 12 October 2010, Pages R839-R840, ISSN 0960-9822, http://dx.doi.org/10.1016/j.cub.2010.08.030.

(<http://www.sciencedirect.com/science/article/pii/S0960982210010201>)

4. ALLEVIATION OF LEARNED HELPLESSNESS IN THE DOG.

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Journal of Abnormal Psychology, Vol 73(3, Pt.1), Jun 1968, 256-262. [http://dx.doi.org/10.1037/h0025831](http://psycnet.apa.org/doi/10.1037/h0025831)