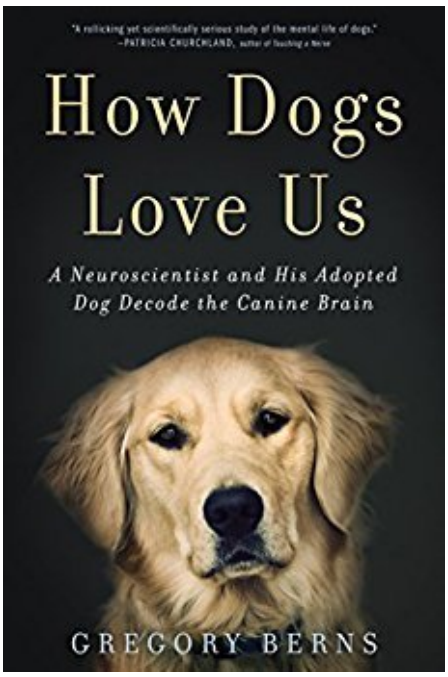

How Dogs Love Us: A Neuroscientist and His Adopted Dog Decode the Canine Brain

Gregory Berns

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How Dogs Love Us: A Neuroscientist and His Adopted Dog Decode the Canine Brain Gregory Berns The powerful bond between humans and dogs is one that's uniquely cherished. Loyal, obedient, and affectionate, they are truly "man's best friend." But do dogs love us the way we love them? Emory University neuroscientist Gregory Berns had spent decades using MRI imaging technology to study how the human brain works, but a different question still nagged at him: *What is my dog thinking?*

After his family adopted Callie, a shy, skinny terrier mix, Berns decided that there was only one way to answer that question—use an MRI machine to scan the dog's brain. His colleagues dismissed the idea. Everyone knew that dogs needed to be restrained or sedated for MRI scans. But if the military could train dogs to operate calmly in some of the most challenging environments, surely there must be a way to train dogs to sit in an MRI scanner.

With this radical conviction, Berns and his dog would embark on a remarkable journey and be the first to glimpse the inner workings of the canine brain. Painstakingly, the two worked together to overcome the many technical, legal, and behavioral hurdles. Berns's research offers surprising results on how dogs empathize with human emotions, how they love us, and why dogs and humans share one of the most remarkable friendships in the animal kingdom.

How Dogs Love Us answers the age-old question of dog lovers everywhere and offers profound new evidence that dogs should be treated as we would treat our best human friends: with love, respect, and appreciation for their social and emotional intelligence.

How Dogs Love Us: A Neuroscientist and His Adopted Dog Decode the Canine Brain Details

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From Reader Review How Dogs Love Us: A Neuroscientist and His Adopted Dog Decode the Canine Brain for online ebook

Chris says

I love reading about dog behavior and dog psychology, so I found it disappointing that only about 30 pages towards the end of this book actually dealt with the study results, and the other 200 are overly detailed accounts of setting up the study, training the dogs, and random family anecdotes.

Orsolya says

We have all wondered what our pets were thinking (even though we claim to 'know'). The truth is: we *don't* know. Can we look at images of an animal's brain to know what they are thinking or what drives their behavior? Gregory Berns MD, PH.D, a renowned scientist and professor of neuroeconomics, attempted to decode the inner workings of dogs with his 'Dog Project' and discusses his adventure in, "How Dogs Love Us: A Neuroscientist and his Adopted Dog Decode the Canine Brain".

One would naturally assume that "How Dogs Love Us" is either a strong data-infused research exploration or a pop psych book simplifying the subject for general readers. Even though Berns does sprinkle his text with data and science; "How Dogs Love Us" is better described as a memoir due to Berns more-so talking about how he thought of and conducted the Dog Project versus addressing hard-hitting science. Fortunately, his writing is easy-to-understand and entertaining but it won't exactly fit what psych readers expect.

On the other hand, this thorough step-by-step detailing of a single experiment invigorates the reader into seeing how experiments are contrived and what goes on behind closed doors. That is not often discussed n texts which instead focus on theory and results so "How Dogs Love Us" certainly stands out in this respect.

Noticeably, Berns sometimes repeats himself albeit in a minor way – meaning not with a large chunk of text – and therefore it is modestly detrimental to the text. There are also moments when the reader feels Berns remembers his experience with rose-colored glasses or exaggerates because his described situations are "too easy" or fit too smoothly making his account sound fictional or fibbed in order to progress the pace of "How Dogs Love Us".

It isn't until approximately page 130 that "How Dogs Love Us" truly focuses on the Dog Project and the scanning of dogs' brains versus just the preparation involved. This is when Berns is more scientific instead of merely penning a memoir but even then he over-simplifies the material and glosses over many details.

The experimental results are riveting and Berns jumps more in-depth than previously but "How Dogs Love Us" still isn't a pure science piece nor a straight memoir (because it has detachment and lacks the full-emotional aspect). The conclusion finally brings in the emotion while also discussing science therefore ending "How Dogs Love Us" with a burst of strength.

"How Dogs Love Us" is an interesting book on a complex topic. Berns has traveled on an unprecedented journey of scanning non-sedated dogs but sadly, failed to truly present the amazing, intense merits of this. "How Dogs Love Us" doesn't fully answer its own title question and the book is disjointed being neither a pop psych book or a memoir and laying somewhere in between. However, "How Dogs Love Us" is

suggested for dog and pet lovers seeking a semi-psych read. Just don’t expect your mind to be blown.

Carrie says

The author takes a fascinating proband, adds the most exciting area of science; research, and becomes so granular with head positioning, you want to rip your own head off by chapter 8. That is where I started skimming. Written to an audience who appreciates research, but then written to move so slowly, and on a fifth grade reading level, the book demonstrates that you cannot serve two masters. As someone who has worked many years in medical research, I was hoping for more scientific conclusions in the end. What I found was generalization and guess-work. I suppose the redeeming value the publisher felt, was this was a unique topic for a book. If you're a big research nerd like me, however, you'll spend most of your time rolling your eyes, and searching for concrete scientific value to this work.

Steve says

In the interest of transparency, I need to reveal that I'm a "dog person". I grew up with all sorts of dogs: dachshunds, boxers, miniature collies, Norwegian elkhounds, basenjis, Chihuahuas, and pugs. So going in, I was probably going to like this book. A lot.

All that aside, this was an incredibly interesting book. The science and research is something that I would probably enjoy immensely, and the author did an outstanding job of keeping it in layman's terms and understandable for the "regular" reader, at least for the most part. The account itself was wonderful, too, with laugh-out-loud moments and an entire chapter of tears late in the book.

This book does make me wonder, though, why we need science to figure out that our dogs love us (the scientist-author mentioned this, too). When I was a preteen/teenager growing up, my family showed Norwegian elkhounds for fun in central Ohio. We trained them (and they trained us), and we were actually pretty successful in this endeavor, actually winning "best-in-state" once with one of them. Just like in the book, we used all sorts of hand signals to direct the dogs to perform various tasks and actions, and rewarded them on an infrequent basis, especially when in the ring.

The dog my wife and I have now, a 9-year old Chihuahua named "Fantum", is very smart, very empathic, and very perceptive. He knows when we are hurting or need his attention, even to the point of not responding when my wife "fake-cries" just to get a reaction out of him. He knows when my wife's blood pressure or blood glucose is too high, and won't leave her alone until we take care of it. He directs us with his eyes when he wants something: to go outside, to play, to receive a snack, even when it's bedtime. His memory of his "people" is quite impressive, too. My son, Tony, moved out of the house four years ago, and Fantum still looks for him when we say "Tony", running to the front window to look at the driveway for his car. As cool and as ground-breaking it is, I don't need a brain scan on my dog to know that he loves his family unconditionally.

Highly recommended for all "dog people"!

Jazzy says

I think I would have been happier just reading the scientific paper; there really wasn't enough material here to justify writing a book. The conclusions that the research reached were gratifying in that they substantiated what any "dog person" already knows; but they were also superfluous in that a real "dog person" doesn't need research to tell them what in their minds is plainly evident.

The book spends allot of time, attention and detail discussing the process by which the dogs were trained to undergo an MRI. I would have been happy with one sentence "we used positive reinforcement to gradually shape the needed behavior for the dog to enter and hold still in the MRI and to acclimate to a pair of earmuffs to protect their sensitive hearing during the scanning process". End of story. Anyone who is really a "dog person" has a basic idea as to how the training was accomplished. Anyone who really isn't a "dog person" probably isn't all that interested.

The first experiment concluded that while the caudate activation in the dogs' brains shows that they transfer the meaning of a hand signal to something rewarding like hotdogs, the other brain regions activating point toward a theory of mind. Even if dogs have only a rudimentary theory of mind that would mean they might have about the same level of consciousness as a young child. It's nice to have this validated by science, but it's also something that the real "dog person" simply inherently knows (and will not accept otherwise).

The second experiment looked at how dogs responded to familiar and unfamiliar scents of humans and dogs. It concluded that only one type of smell activated the caudate (same as the signal for hotdogs did) and that is the scent of a familiar human. This suggests that dogs have a sense of permanence for the people in their households. They know who their family is and remember them, even when they aren't physically there - and the remembrance is a positive one - or at least in this case it was (perhaps the canine version of love). The "dog person" in me needs to point out that this also falls under the umbrella of "as plain as the nose on your face"; and the positive remembrance only goes so far in that it is deserved. Dogs don't like people who treat them badly.

In summary I thought the book contained too little actual research and too much attention to tedious detail. The anecdotal and personal information shared wasn't riveting enough to warrant it's inclusion. I really wanted to like this book more than I did, but truth is I found it more that a little boring.

Richard says

The results of the research are very interesting, but they can be summed up in two sentences. This book pads those results with a rather poorly told story. I wish I had googled for the study results and spent the time saved reading a book that was actually good.

Alexandra says

10/24/17 $.99 for Kindle.

"Eventually, I came to the conclusion that the key to improving dog-human relationships is through social

cognition, not behaviorism. Positive reinforcement is a shortcut to train dogs, but it is not necessarily the best way to form a relationship with them. To truly live with dogs, humans need to become “great leaders.” Not dictators who rule by doling out treats and by threatening punishment, but leaders who respect and value their dogs as sentient beings."

This book starts off with information regarding the author's love for his dogs, the idea for the project, how they trained dogs to enter and lay still for the MRIs, etc. I very much appreciate the exceptional humane objectives and treatment, but I admit I skimmed a large chunk of the beginning of this book in order to get to what I was truly interested in - the findings and what they feel they'd learned.

It was all quite interesting to me. As a dog person myself I have no doubt our dogs do love us. But of course, they are still a different species and it's wise not to think of them as mini-humans, at least as far as things like how they think, what they feel, and physical needs. Dog people know that relationships with dogs can certainly be mutually beneficial, and have an inter-dependancy, even on a purely emotional level, that rivals what humans can experience in relationships with other humans.

But how is that relationship from a dog's perspective? Do they feel love, affection, or do they see their human companions as simply dispensers of food and pleasurable things like play time and belly rubs?

I know what I think :D Dogs are social creatures, and clearly able to bond with humans. They show clear signs of fear, anger, anxiety, joy, even grief. I see no valid reason to deny they also feel affection.

Highly recommend to dog lovers who are interested in the dog mind.

Some quotes from my highlights:

"The brain-imaging results showed that dogs had mental processes substantially similar to our own."

"Our results support a theory of self-domestication based on dogs' superior social cognition and their ability to reciprocate in human relationships. Moreover, these interspecies social skills evolved from dogs' predatory past. Apart from humans, strong evidence for theory of mind has been found only in monkeys and apes, which have social cognition for primates but not necessarily other animals. Dogs are much better than apes at interspecies social cognition."

"The defining trait of dogs, therefore, is their interspecies social intelligence, an ability to intuit what humans and other animals are thinking." "Dogs' great social intelligence means that they probably also have a high capacity for empathy. More than intuiting what we think, dogs may also feel what we feel. Dogs have emotional intelligence."

Cheri says

"Eventually I came to the conclusion that the key to improving dog-human relationships is through social cognition, not behaviorism. Positive reinforcement is a shortcut to train dogs, but it is not necessarily the best way to form a relationship with them. To truly live with dogs, humans need to become 'great leaders.' Not dictators who rule by doling out treats and by threatening punishment, but leaders who respect and value their dogs as sentient being."

Gregory Berns alternates between a scientific approach and a dog owner who is more than slightly fond of his dogs. There is plenty of discussion of research, which is interesting in parts, funny in others. The thought process that was behind his attempt to prove that dogs are capable of what can only be described as "loving" their "humans." Now if only we could have a secret decoder ring that came with our pets, we'd all be a lot less frustrated trying to decode the rest of what they're thinking and feeling.

Chrissie says

This book hit a soft spot in me and so pushed my four star rating to a five. For me, dogs are so special that most often books about them cannot properly capture why we love them so much and why they love us back. This is a science that needs to be explored; here the author / neuroscientist is doing just that.

This book grows on you. The further you progress, the more topics of canine interest are touched upon.

I have read quite a number of books on the cognitive abilities and emotions of animals. Most of them cover several types of animals and numerous experiments. This book is different. Here we follow the author's "*Dog Project*" conceived in 2012. We look only at this one study, but we look at it in detail. Two dogs were trained to voluntarily go inside an MRI, thus for the first time making it possible to conduct structural and functional scans of the brains of conscious dogs. They were trained to voluntarily go into the machines which under operation are extremely noisy, put their heads in a headrest and stay absolutely still. How was this done? With hot dog slices and classical reward training and the bond that developed between the dogs and their trainer / owner. Every step of the project is detailed. We learn how magnetic resonance imaging (MRI) works. We learn how it came to be that ear muffs were used. The reader feels as though they themselves are part of the team, working through problems that arise, and so we too become exultant when success is achieved. I was not observing from a distance; I was involved and I cared and their progress and their failures were felt as my own.

Scientific terms are explained clearly and simply. This is important because you must understand the science to feel you are part of the scientific team. The author´s scientific explanations are not complicated. I find that those who best know their field can explain simply, and that is what the author does here.

We meet the author's past and present dogs and his family. The death of his pug led him to start the *Dog Project*. The author is a neuroscientist, professor of both psychiatry and economics and Distinguished Chair of Neuroeconomics in the Department of Psychiatry and Behavioral Sciences at Emory University School of Medicine in Atlanta, Georgia. One of his dogs, Callie, a mixed breed feist from a shelter, was one of the two dogs in the project. The other dog in the project, McKenzie, was a trained border collie. The family’s second dog, Lyra, also plays a central role in the book, although she never takes part in the experiments. She (view spoiler). In meeting the whole family, the book touches on how science should be taught in schools and the emotional impact our dogs have on our lives. In discussing both the *Dog Project*t and the author’s family, many diverse canine topics are successfully discussed.

The *Dog Project* was "open in form", meaning the scientists did NOT start with a particular hypothesis to be tested. They simply wanted to see what the MRI scans of a canine brain would reveal. Originally, I was surprised to see that the dogs were equally happy to be rewarded by a hot dog slice or a just a measly pea! Then I realized that this is exactly what dog trainers tell us; do not reward every accomplished task with a treat. It is the reward the dog is after. What really puts dogs in attention mode is when they are sometimes given a hot dog slice and sometimes **NOT** rewarded at all. What the dog is looking for is praise from his

owner. Think about that! Having confirmed on MRI scans guidelines that we dog owners have been following for years in the training of our pets is satisfying. Dog training is best accomplished through hand signals, clear and consistent commands and positive rewards. Again, another topic the book successfully explores - dog training.

The MRI scans seem to show that our dogs reciprocate the love we feel for them, that they intuit our thoughts and that they have the ability to maintain inter-species social cognition. If further experiments reconfirm what the *Dog Project* has indicated, then our treatment of dogs and many other species must be re-examined. The domestication of dogs too! Who has domesticated whom? The scientist is continuing such studies on dogs, and not just with the two dogs, Callie and McKenzie. Many dogs, and dogs of different breeds and backgrounds, need to be tested.

The audiobook was extremely well narrated by L.J. Ganser. The entire narration was read clearly and at a good speed. The emotional episodes were handled well. I have given not only the book but also its narration five stars.

I think this book is worth five stars because the science is described clearly, the emotional impact dogs have on us is shown to be central to the experiments and thus should and is an important component of the book and I like how the author carried out the experiments with respect for the integrity of the canines involved. I value how the results of the experiments reconfirm how dogs are to be trained. Finally, I must admit that dogs more than other species have a special place in my heart, and when a book successfully explores this bond, such a book will be exceptional to me.

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Do you want some more good books to read on animal intelligence? Try these:

*Are We Smart Enough to Know How Smart Animals Are? 3 stars
*Animal Wise: The Thoughts and Emotions of Our Fellow Creatures 3 stars
*Mind of the Raven: Investigations and Adventures with Wolf-BirdsMind of the Raven: Investigations and Adventures with Wolf-Birds 4 stars
*Beyond Words: What Animals Think and Feel 4 stars
*The Genius of Dogs: How Dogs Are Smarter than You Think 4 stars

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Janel says

I just received this book in the mail yesterday afternoon. I started reading it in the evening and was up until midnight when I finally forced myself to put it down. I finished it this afternoon and I really enjoyed it. Everything from how he came up with the idea to how they trained the dogs to go into the MRI and hold still so they could get images from them while they were awake. These tests could enable us to say yes that is what the dogs think, since they can not answer questions. I would recommend this book to everyone, it is interesting, well written so it is easy and quick to read and enjoyable. I can not describe the book well enough so you will just need to read it.

Chris Craddock says

Let Me Count the Ways

How Dogs Love Us by Neuroscientist Gregory Burns tells the story of a promising experiment that scans the canine brain to confirm or deny the theory that dogs actually DO love us. But first they have to get the dogs to climb into the Magnetic Resonance Imaging contraption, hold their heads perfectly still in spite of the unearthly racket the machine makes, while wearing ear muffs to protect their sensitive ears. While Cally, a Super Feist, will do virtually anything for a chunk of hot dog, eating her succulent bribe causes her head to move. That is unacceptable, as it blurs the brain scan. How this was accomplished, along with compiling the data and writing a paper that supports their theory, is the gist of How Dogs Love Us.

Since this is a non-fiction account, and not a formal scientific paper, there is quite a bit of chatter about the author's feelings about dogs, and the people who love them. For instance, his dog Cally, who is one of the prime subjects in the experiment, isn't overly affectionate. She doesn't curl up with her head in his armpit at night, but prefers to keep her distance. She is a high energy dog who loves to chase squirrels. She loves food so much that she figured out a way to unlock the plastic food bin, and gorged herself until she was an overstuffed pinata. But something about her resonated with Gregory Berns. Forget Reservoir Dogs. We're talking Resonate Dogs. Certain dogs "resonate" with certain people, and they bond. Cally reminded me of my dog, Delilah. She is an Australian Cattle Dog, and her herding instinct sometimes causes her to treat people like sheep and herd them hither and yon. But I love her. Gregory Berns spoke of dogs that "resonate" and he was also trying to scan canine brains with Magnetic Resonance Imaging to discover how they resonate with people.

At one point Gregory Berns says that some people are Dog People, and some people are Cat People, but others are neither Dog nor Cat People. Berns doesn't trust such people. But what about people who are both Dog People and Cat People? Berns doesn't mention them, but I have three dogs and a cat. I think that cats and dogs are different, but they both love people in their own peculiar way. For instance, a dog on its back wants you to rub his or her belly. Simple. But a cat in similar stance could just be waiting in ambush to attack! But I digress.

Cally, and Gregory's other dog, Lyra, were a part of his family. The book also profiles other family members, like his wife and daughter. His daughter is struggling with science, of all things. At the parent teacher conference Dr. Berns suggests that his daughter's sub par performance may be due to the science teacher's methods and the inadequate text books. He mentions that the science teacher looks like Ed Helms, who portrays Andy Bernard on The Office. I looked at his author photo and concluded that he looked a bit like Paul Lieberstein, who plays HR worker Toby Flenderson. In other segments he mentioned that he was more comfortable with dogs than humans, and I pictured him as Sheldon Cooper, the socially awkward scientist on The Big Bang Theory played by Jim Parsons. I could picture this whole book as a Sit Com, or more accurately, a dramedy. Not jokes with a laugh track to tell you where to laugh, but more of a subtle dramedy where there are serious and comic moments that arise from real situations. Like maybe Parenthood.

Anyway, he tells his daughter that if she studies her science with him for an extra hour a day she can participate when they bring Cally in to be scanned in the Magnetic Resonance Imager. She can play hooky, but perhaps learn even more by participating in a scientific experiment in a bona fide science laboratory than she would've in school.

So, in conclusion, How Dogs Love Us would appeal to those who enjoy science, family sit coms--or

dramedies--and dogs. Dog lovers especially will love this book.

Victoria says

This is a downright fascinating book! A few months ago, a friend passed on an article from The New York Times on this study, but this firsthand account of the Dog Project at Emory University is (obviously) a much more in-depth and thorough look at getting a functional MRI to help decode the inner workings of the canine mind. Berns perfectly balances the science with his own experiences, love of dogs and even his family life as his whole team works towards their goals. It is surprisingly fast-paced and an absolute joy to read.

It truly is a wonderful book - both informative and moving. What makes this all the more exciting is that this is one of the only dogs books that I have read in a while that truly presents new and exciting information. The research and the science feels new and quite fresh. I can’t wait to learn where the Dog Project will go next and I sincerely hope that Berns continues to take the time out of the lab to report his findings in this very readable and engaging format. This book certainly makes his talents as a scientist, author, parent and dog owner quite apparent! I will definitely be keeping an eye out for a follow-up!

Brenda Gadd says

I loved this book. Even though there is no scientific way, as yet, to measure the title , How Dogs Love Us. What I loved was following a scientific experiment. You have the idea. You work with an MRI all the time. But no one has really looked at a dog's brain, without sedation. Through an elaborate system of dog training (with hot dogs as treats), teaching a dog to wear ear muffs for sound, and hold still... they MRI dogs wide awake. All this, is a situation where lawyers and faculty consultants must pass on the experiment. Conducted in a human MRI setting.
I really enjoyed the author's insights into "Lab dogs" those bred for science, used by science and cast away. Also for other animals used for science.
You have to love science at least a little and dogs a whole lot to love this experiment. Dogs were loved and treated fairly for this experiment. They honored the times the dog wanted to opt out. And the author wants nothing to do with experimental apes ....ever. I wonder if this is from a scientist's viewpoint. I wonder more about what he knows.
I found this a good read.

SheLove2Read says

This book goes to a lot of trouble to tell us what any dog owner already knows: our dogs love us *just because they do.* They only ask for our love and companionship in return.

Lea says

3.5 Stars

The whole way up to the end of this book, I expected to give it 3 stars at best. Although I'm a fan of authors who weave their personal lives into their books -- Mary Roach and Jon Ronson are both masters at this -- Gregory Berns rubbed me the wrong way. He comes across as smug and superior, and to tell the truth, I was just hanging in there to read about his results. (Berns was the first to scan a non-sedated dog in an MRI.)

A good two-thirds of the book focuses on the author's family, as well as the training for his Dog Project. While the dog training was interesting, I didn't enjoy the rest of the story. The final third of the book focuses on the MRIs themselves, as well as the results and the team's conclusions. The book shines in this part, and I thought the Berns really hit his stride at that point.

But a funny thing happened -- in the last chapter or two the author again returned to discussing his family and the dogs that live with them, and I didn't find it at all irritating. I think his enthusiasm for his Dog Project resonated with me, and his obvious love for the members of his "pack" was very charming.

I would definitely recommend reading this one, especially if you love dogs and/or science -- and if you don't love Berns immediately, maybe just give it a few more pages. He just might grow on you.
