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Human beings and dogs

Man's best friend

Scientific research throws new light on a very old partnership

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Dog Sense: How the New Science of Dog Behaviour Can Make You a Better Friend to Your Pet. By John Bradshaw. *Basic Books*; 324 pages; \$25.99. Published in Britain as *"In Defence of Dogs: Why Dogs Need Our Understanding"*. Allen Lane; £20. Buy from [Amazon.com](#)



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THE relationship between people and dogs is unique. Among domesticated animals, only dogs are capable of performing such a wide variety of roles for humans: herding sheep, sniffing out drugs or explosives and being our beloved companions. It is hard to be precise about when the friendship began, but a reasonable guess is that it has been going strong for more than 20,000 years. In the Chauvet cave in the Ardèche region of France, which contains the earliest known cave paintings, there is a 50-metre trail of footprints made by a boy of about ten alongside those of a large canid that appears to be part-wolf, part-dog. The footprints, which have been dated by soot deposited from the torch the child was carrying, are estimated to be about 26,000 years old.

The first proto-dogs probably remained fairly isolated from each other for several thousand years. As they became progressively more domesticated they moved with people on large-scale migrations, mixing their genes with other similarly domesticated creatures and becoming

increasingly dog-like (and less wolf-like) in the process. For John Bradshaw, a biologist who founded the anthrozoology department at the University of Bristol, having some idea about how dogs got to be dogs is the first stage towards gaining a better understanding of what dogs and people mean to each other. Part of his agenda is to explode the many myths about the closeness of dogs to wolves and the mistakes that this has led to, especially in the training of dogs over the past century or so.

One idea has governed dog training for far too long, Mr Bradshaw says. Wolf packs are supposedly despotic hierarchies dominated by alpha wolves. Dogs are believed to behave in the same way in their dealings with humans. Thus training a dog effectively becomes a contest for dominance in which there can be only one winner. To achieve this the trainer must use a variety of punishment techniques to gain the dog's submission to his mastery. Just letting a dog pass through a door before you or stand on the stairs above you is to risk encouraging it to believe that it is getting the upper hand over you and the rest of the household. Mr Bradshaw argues that the theory behind this approach is based on bad and outdated science.

Dogs share 99.6% of the same DNA as wolves. That makes dogs closer to wolves than we are to chimps (with which we have about 96% of our DNA in common), but it does not mean that their brains work like those of wolves. Indeed, the outgoing affability of most dogs towards humans and other dogs is in sharp contrast to the mix of fear and aggression with which wolves react to animals from other packs. "Domestication has been a long and complex process," Mr Bradshaw writes. "Every dog alive today is a product of this transition. What was once another one of the wild social canids, the grey wolf, has been altered radically, to the point that it has become its own unique animal." If anything, dogs resemble juvenile rather than fully adult canids, a sort of arrested development which accounts for the way they remain dependent on their human owners throughout their lives.

But what makes the dog-wolf paradigm especially misleading, Mr Bradshaw argues, is that until recently, the studies of wolves were of the wrong wolves in extremely artificial conditions. In the wild, wolf packs tend to be made up of close family members representing up to three generations. The father and mother of the first lot of cubs are the natural leaders of the pack, but the behavioural norm is one of co-operation rather than domination and submission. However, the wolves on which biologists founded their conclusions about dominance hierarchies were animals living in unnaturally constituted groups in captivity. Mr Bradshaw says that feral or "village" dogs, which are much closer to the ancestors of pet dogs than they are to wolves, are highly tolerant of one another and organise themselves entirely differently from either wild or captive wolves.

Dogs are not like nicely brought-up wolves, says the author, nor are they much like people despite their extraordinary ability to enter our lives and our hearts. This is not to deny that some dogs are very clever or that they are capable of feeling emotion deeply. But their intelligence is different from ours. The idea that some dogs can understand as many words as a two-year-old child is simply wrong and an inappropriate way of trying to measure canine intellect. Rather, their emotional range is more limited than ours, partly because, with little sense of time, they are trapped almost entirely in the present. Dogs can experience joy,

anxiety and anger. But emotions that demand a capacity for self-reflection, such as guilt or jealousy, are almost certainly beyond them, contrary to the convictions of many dog owners.

Mr Bradshaw believes that it is difficult for people to empathise with the way in which dogs experience and respond to the world through their extraordinary sense of smell: their sensitivity to odours is between 10,000 and 100,000 times greater than ours. A newly painted room might be torture for a dog; on the other hand, their olfactory ability and their trainability allow dogs to perform almost unimaginable feats, such as smelling the early stages of a cancer long before a normal medical diagnosis would detect it.

The latest scientific research can help dogs and their owners have happier, healthier relationships by encouraging people to understand dogs better. But Mr Bradshaw is also fearful. In particular, he deplores the incestuous narrowing of the gene pool that modern pedigree breeders have brought about. Dogs today are rarely bred for their working abilities (herding, hunting, guarding), but for a very particular type of appearance, which inevitably risks the spread of physical and temperamental abnormalities. Instead, he suggests that dogs be bred for the ideal behavioural traits associated with the role they will actually play. He also worries that the increasing urbanisation of society and the pressures on couples to work long hours are putting dogs under huge strain. He estimates that about 20% of Britain's 8m dogs and America's 70m suffer from "separation distress" when their owners leave the house, but argues that sensible training can teach them how to cope.

"Dog Sense" is neither a manual nor a sentimental account of the joys of dog-ownership. At times its rigorously research-led approach can be slightly heavy going. A few more jolly anecdotes might have leavened the mix. But this is a wonderfully informative, quietly passionate book that will benefit every dog whose owner reads it.

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