Where the Wild Things Went

Is the relationship between man and domesticated animal one of slavery or choice?

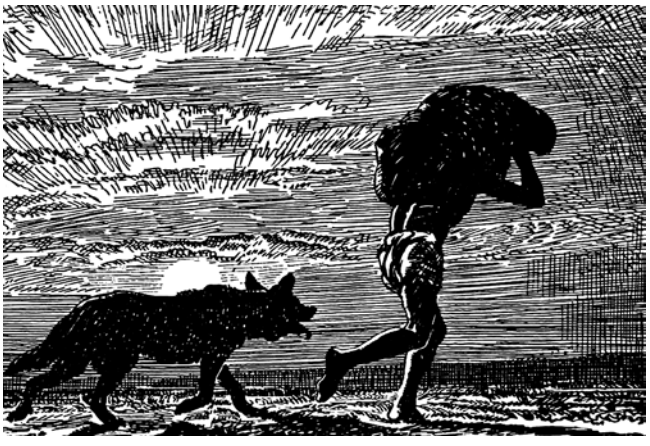
Ethnobotanist TP McKenna believed that it was a fondness for the little pointy-headed mushrooms sprouting from auroch dung that first led humanity into a close domestic relationship with wild animals. There are many theories around the origins of man-beast symbiosis, some quite outlandish, but what is not in doubt is that these connections are very ancient, and run deep in the human psyche.

The word "domestication" has proved a stumbling-block to a better understanding of how the process emerged. Language invisibly shapes how we think. The word domestication implies that "we" did that to "them". The assumption that follows is that domestication was a state imposed by humans on other species against their will. This belief lies at the bottom of Animal Liberation theology: the idea that we stole the freedom of certain other species and now hold them in captivity; that a "domesticated" animal is basically (as Bob from Kebele puts it) "enslaved" (*see page 11*).

Undeniably, and tragically, this situation of slavery is now true of animals kept in a modern, enforced, factory-farming situation, but this is a recent (and reversible) development. The original connection between ourselves and a very few other species lies far back in time, when we had no such means of domination and coercion; of holding animals (usually bigger and stronger than ourselves) captive against their wills. So the likelihood is that there were advantages to the man/beast symbiosis on both sides, and that dogs, cattle, pigs, sheep and goats, horses, donkeys and camelids (not to mention cats, rats and mice, equally "domesticated") stood to gain from close association with the local human clan.

From Forest to Fireside

Starting with Charles Darwin, much work has been done to uncover the various routes by which these species came into the human orbit, and stayed there, allowing time and space for the natural selection of genetic traits that conferred an adaptive advantage to happen. The main routes are: (i) the commensal (meaning "sharing a table") which includes dogs, cats, poultry and pigs; (ii) previously prey animals, herbivores prospering from crop residues; (iii) "targetted" animals providing muscle-power (horses, donkeys, camelids) in return for a more high-octane grain diet. In some cases these routes overlapped but they all show distinct advantages to the animal.



It's important to understand the difference between domestication, which is a permanent genetic change in the species, passed on to offspring, and tameness. A tame animal is a single, wild-born individual who has lost its fear of humans; it may also have genetic differences from the majority of its species. If selectively bred, this mutation may develop into permanent evolutionary changes, thus creating a domesticated strain. One example of such change is to the limbic system, a portion of the brain which regulates aggression, which in domestic dogs, pigs, and sheep shows a 40 percent reduction in size compared with their wild relatives.

> "The overall picture is that domestication was a gradual affair, full of pitfalls and false starts. It took thousands of years of tinkering before agriculture as we know it came into being, and for much of that time, the border between wild and tame remained fluid".[1]

The process of domesticating large mammals concluded approximately 4,500 years ago, which suggests that the experiment had succeeded with the local species that were suitable and compliant, and had failed with the others. The right type of animals needed to be there in the first place. As indeed they were, in the Fertile Crescent of Mesopotamia, the cradle of agriculture, where, as Tim Radford describes,

> The seeds of wild wheats, einkorn and emmer, were not just big and easy to gather, they delivered the best nourishment. And not far away, contentedly chewing on a choice of the other wild grasses and pulses, were wild cattle, sheep and goats all suitable for domestication, and potentially docile swine as well. So the groundbreaking farmers of the Fertile Crescent, with their makeshift mattocks, stone sickles and crude pestles and mortars, already had about them the makings of the first ploughman's lunch of bread and butter and cheese and beer; the first Mediterranean diet of wine, olive oil, peas and prosciutto; and everything for a beefburger except the tomatoes, ketchup and mayo. [2]

Six Criteria

Evolutionary physiologist Jared Diamond, in *Guns, Germs and Steel*, identifies the six characteristics that self-selected certain species for domestication. Fussy eaters are out — a willingness to live by scavenging the residues around human settlements is the first criteria. Maturing quickly is the next. If it takes many years for an animal to reach an age or size where it can be trained to work, or reproduce, or be eaten, that will take too much care and feeding to get results. Species which can only mate after elaborate courtship rituals are also eliminated. Animals with a fast flight reaction and high jumpers are also out: deer, for example. So, fast growth and reproduction, a robust digestion; and a trusting rather than fearful disposition are pre-requisites. The other two are docility and pack instinct — the need for a leader.

The Call of the Cute

As some domesticated animals have ferocious ancestors, such as wolves or aurochs, the importance of docility, an easy-going temperament, is debatable. However there is a biological mechanism which appears to have been at work in the early stages of the man-animal symbiosis, which is *neoteny:* a process whereby over only a few generations, a species becomes infantilised, keeping the submissive, dependent traits of the baby animal and losing the assertive, self-defending ferocity of the adult.

Domesticated animals differ in several ways from their wild ancestors. For instance, many are different sizes and have smaller brains. Why do so many popular breeds of pets have big eyes, round faces and squashed-up noses? These babyish features go with babyish behaviour; as much as physiology, it's the changes in behaviour from the adult and wild, to the juvenile and tame that show a permanent change has occurred. If animals are able to mate and reproduce at an early age, before developing the full attributes of maturity, then their offspring's attributes will also revert to a stage nearer to the embryonic.

Given that the helplessness of baby creatures triggers an innate caring response, it's likely that the offspring of animals killed in the hunt would be taken back to the shelter, as novelties and playthings, if not future dinners. This didn't always work. Fox and wolf cubs are an example of cute fluffy animals that soon turn nasty. However, by selecting the least-nasty, most immature specimen of a litter (the runt), ferocity is quickly bred out of the motley canines hanging around the camp; illustrating how taming can lead, over time, to evolutionary alterations in the genome which are transmitted down the generations, creating new species.

Five-Dog Nights

Dogs were by far the earliest species to become domesticated, by evolving from wolf ancestors. From the dogs' point of view, what was (and is) in it for them? For these notorious scavengers of bones and excrement, the environs of any human camp would have provided a plethora of tasty snacks from various human wastes. From the human point of view, aside from their sanitation services, the prescence of warm furry animals could provide a sort of biological heating system. Aboriginal people in Australia talk of "five-dog nights" as being so cold that a pile of that many dogs is needed as a blanket. Territorial defence is another innate canine instinct, keeping guard over the settlement with more alertness than people could muster. Collaborating in the hunt — everyone gets to eat. And so forth. It is clearly a win-win mutual support relationship.

Leader of the Pack

One thing that all domesticated species have in common is that their wild ancestors lived in herds with a "dominance hierarchy" or pecking order. In this social structure one individual takes responsibility for the safety of all the others, and the majority are content to submit to the strongest member. As humans took on this role of protectors and providers, so the animals gradually became more dependent, and compliant. Knowing

With apologies to John Dickson Batten (1910)

Many old tales , like Androcles and the Lion, record instances of animals seeking help from people, suggesting that our dexterity and technology give us a useful role in the community of nature.

where your next meal is coming from is a tremendous advance in well-being and security, and the trade-off against a perilous "freedom" in the wild has proved satisfactory for all parties.

The current debate about what we should do, now that we have other "technological" food sources, with these species which have been our responsibility for countless centuries, brings us face-to-face with many uncomfortable questions. Not least about our fundamental relationship with, and biological place in, the natural world. For those who live and work with "livestock", the connection is life-enhancing on many levels, and any such person knows that it is virtually impossible to make an animal do things it doesn't want to. Domestication is a two-sided contract. Co-operation, not coercion, is the key. It goes without saying that all this constitutes an argument *against* modern factory farming, which is a travesty and betrayal of the terms on which we live with our domesticated fellow-animals. Such cruelty must stop.

Stephen Budiansky, in *The Covenant of the Wild*, sums it up:

> "In raising animals, we are re-enacting something not as old, culturally speaking, as hunting, but in a way more profound, for the rise of animal agriculture is an example of evolution operating at its highest level — on *systems* of species, one of which is us. It is much easier to suggest doing away with animal agriculture if we subscribe to the idea that it was all just another exploitative invention of man. The realisation that it is the product of . . . a process that in fact substituted mutual dependence for outright competition or predation, is a little more humbling."

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1. Mikanowski, j. https://aeon.co/essays/how-domestication-changes-species-including-the-human

2. Radford, Tim: Guns, Germs and Steel and a Ploughman's lunch. Guardian 19.2.2010

3. Diamond, Jared: Guns Germs and Steel. WWNorton 1997

4. Budianski, Stephen: *The Covenant of the Wild: Why Animals Chose Domestication*. Phoenix 1997