Best Friends Forever: An Evolutionary Explanation [B2]

Gli esseri umani amiamo i cani e loro sembrano amarci a loro volta. Ma fino a che punto ci capiamo veramente? Trentamila anni dopo, la scienza offre alcune risposte.

For thousands of years, dogs have lived side-by-side with humans. In many homes today, they are considered a member of the family. Some dogs dress well and **dine on** expensive organic dog food! We still refer to dogs with the old-fashioned expression 'man's best friend' (although many women love them too) because of the positive characteristics we associate with them: loyalty, protectiveness and affection. However, long before dogs became our loyal companions, their ancestors **roamed** the wilderness **in packs**, hunting **prey**. Genetic evidence suggests that dogs descended from the grey wolf and that domestication occurred in at least two stages in different parts of the world, beginning in Asia over thirty thousand years ago.

EVOLUTION

So, how did the wolf evolve into the friendly dog? Experts disagree on how to answer this question. Certainly humans had a role in the process: men and women have long **bred** dogs in a way that accentuates the desired **traits** of an ideal companion. Today, there are around 360 recognised dog **breeds**, with many known and loved for their intelligence and gentle temperament.

HUMAN HAPPINESS

As well as offering companionship, support and protection, dogs also offer us **well-being**. Many studies have found that they bene**fit** our psychological and physical health by reducing stress and anxiety. And the American Heart Association says that people with dogs are 65 per cent less likely to die after a heart attack than those who don't and have a 24 per cent reduced risk of all-cause mortality.

ANIMAL PSYCHOLOGY

To learn more about the special relationship between dogs and humans, Speak Up contacted Juliane Kaminski, director of the Dog Cognition Centre. Located at the University of Portsmouth on the English south coast, the centre is the UK's first facility dedicated exclusively to studying how dogs understand humans and the world around them. Kaminski is also an Associate Professor in Comparative Psychology at the University of Portsmouth and the Director of the Centre for Comparative and Evolutionary Psychology. We began by asking her why dogs are so interesting a subject to study. **Juliane Kaminski (German accent):** We study dogs because they are such an interesting model. And the reason for that is because they've been living with us for such a long time. Humans domesticated dogs **roughly** thirty thousand years ago. And that is quite a long time, even though from an evolutionary perspective maybe not so long, but they are the first domesticated species that we have created. So they're the first species we domesticated. We think that they might have adapted to the human environment in specific ways. That is why we are so interested in them and want to find out to what extent they might have adapted to humans in their cognition and in their psychology.

SELECTIVE BREEDING

And, Kaminski explains, domestication occurred through a process of mutual adaptation between humans and dogs. **Juliane Kaminski:** We do think that they have been, consciously or unconsciously, selected to be very friendly, very cooperative, very nice. Not always, but most of the time. And I am very much interested in dog-human communication. And we think that we particularly have selected dogs to be very good in understanding and reading our communication. And I'm really interested in the extent to which that is really comparable to how we communicate. So we know that dogs understand us, but I want to find out to what extent is that really

understanding or are they just simply using certain **cues**, or do they really fully understand what we are trying to communicate.

COMMUNICATION TOOLS

We then asked Kaminski how dogs understand and communicate with us. **Juliane Kaminski:**We know that dogs are really good in [at] using our verbal **cues**. We know that we can train them to follow quite a large number of **commands**, and that most dogs learn those quite quickly. So we know there are dogs out there that that know hundreds and hundreds of objects by name. I myself have worked with dogs that knew more than three hundred objects by name. There was a very famous dog in America, Chaser, who knew more than one thousand objects by name. So we know that dogs are really good with verbal information that they're getting from us. But we think that their particular strength is in reading our non-verbal communication. So dogs seem to be really good in [at] reading our gestures, and they seem to be better than any other species that we have worked with, including our closest living relatives, the chimpanzees, in [at] reading our gestural communication. For example, a very simple gesture like pointing to something, which is something that we humans do all the time. And dogs are very, very good at **picking up on** these kinds of gestures and **cues**. So it's non-verbal and verbal. In both of those domains, dogs have really adapted to us in particular ways.

STRANGE PETS

These days, some people, including many celebrities, choose to adopt other less common animals as pets. They include **piglets**, **skunks**, **raccoons** or reptiles, such as **lizards** or snakes... or **stick insects**. There is even a **thriving** illicit trade in rare and sometimes dangerous wildlife. While we may not view certain animals as **suitable** pets, it is possible that they too would have evolved and become domesticated had enough people tried it in the past. We asked Kaminski if a similar process to dogs or cats would have occurred, if thirty thousand years ago humans had chosen a different animal as a pet. **Juliane Kaminski:** Domestication is really a selection process by

which we have changed not just the anatomy of the animal but also the physiology. So domestication doesn't just mean I'm taking a wild animal, and I'm sort of **raising** it in the house and by [doing] that, I might have a **tame** individual or an individual that can be **trained**. That is still the wild animal. What we have done with dogs, is to really sort of select them systematically to be something very different anatomically and physiologically .The physiology is different. So that puts dogs in a position to in some sense handle the life that we are providing for them in ways that non-domesticated animals couldn't do. You used the term 'pet' when you talked about a raccoon, for example; a raccoon is still the wild form, it is not domesticated. So it's like sort of **raising** a chimpanzee in a house... that doesn't make it a pet. So it's still the wild form with all its wild genes.

ONGOING PROCESS

As Kaminski explains, all animals transform themselves to **fit** better with their environment. **Juliane Kaminski:** We have turned dogs into something that can **cope with** this environment. What we would need to do to test your hypothesis, is to take another species and in some sense make **it undergo** the same selection process. We have done that to some extent with cats, even though their domestication history is very different. And it is to some extent happening with foxes in cities, at least in European cities where there is quite a huge fox population. And we can see that foxes that live in the city have to some extent self-domesticated. So they are showing some signs, anatomically and physiologically, of changes towards a more domesticated form compared with the foxes that are still living in the forest.

WILD OR TAME

Wild dogs and domesticated dogs are smart animals. We asked Kaminski if the cognitive ability of a **tame** dog differs from that of a wild dog, such as a wolf, coyote or fox. **Juliane Kaminski:** The wild form or the wild cousin of the dog is the wolf. So it's the only species that was involved as an ancestor. So the ancestor of the dog was a subspecies of wolf that doesn't seem to exist anymore. But it was definitely a wolf subspecies. So if we compare wolves

and dogs, then when it comes to cognition, we don't necessarily see major differences. We do see differences, but they are not the differences that we might expect, because I know that out there, there is still this kind of idea of dogs just being **dumb** wolves. So this idea that because dogs have been domesticated, we **dumb**ed them down to some extent, and we definitely don't see any evidence for that. So when it comes to physical cognition, we don't see any major differences between wolves and dogs. It is in the social domain, especially in interacting with humans, where we see major differences. So when it comes to reading human communication, attending to humans, establishing eye contact with humans… all these kinds of communicative things is where we see dogs **outperform** the wolves.

DIFFERENT NORMS

In some cultures, keeping a dog as a pet is not considered normal. Their treatment and role in society differs according to culture, as Kaminski explains. **Juliane Kaminski:** If you look at the whole dog population, then 85 per cent of dogs are pretty much street dogs. The dogs that we see here in this environment, that is the **outlier**, it's not the norm for dogs. So you see the typical village dog, street dogs, so dogs that sort **of hang out** around humans but are not necessarily part of the family, definitely not allowed in the house. And maybe guard dogs that sort of help to protect the **plot** or the house or the area around, but not really integrated into the family or anything like that. In other societies, dogs are even seen as dirty or as something negative that shouldn't exist to some extent. So I think there's a huge variety out there in how societies treat dogs. And the way that we look at them is in some sense the **outlier**, it's not the norm.

TABOO

There are parts of the world where dogs are eaten. We asked Kaminski what she thought about this. **Juliane Kaminski:** Of course I don't want it to happen. I'm a vegetarian. I don't want any animal to be eaten. But, **let's face it**, I mean, we have other **mammals** here in Europe, like **rabbits** for example, some we have as pets and we love them, and others we eat. So, it's

not like a completely crazy idea to eat dogs. I mean… to me, it's not different from eating a cow, to be honest. I know it's emotionally different for many people, but if you look at it pragmatically, it is not, really.

THE CAT QUESTION

Cats have been domesticated for around ten thousand years, considerably less time than dogs. In addition, cats are territorial, which makes them a difficult subject to study, as Kaminski explains. **Juliane Kaminski:** There's more and more cat research coming [out] and I think it's really interesting. It's just so difficult to work with them, because they are very territorial. The way we set up the dog centre is really almost like a dog **nursery**. So the owners bring us their dog, we play with them, the dogs have a fun day, and then they go back home. For cats, you can't do that. They cannot leave their territory and suddenly enter a strange environment. So you would have to go to the people's homes. And that's logistically a bit of a nightmare. But we see a lot of similarities to dogs, even though cats communicate those in a more subtle way, and it's just not as obvious.

VERBAL CUES

While more research needs to be done, there are some studies that **claim** cats have an equal ability to understand verbal **cues** as dogs, says Kaminski. **Juliane Kaminski:** There is some research out there that says so. If you sort of pre-select the cats that are actually motivated to **even bother**, then you can actually find a similar motivation to follow these kinds of **cues**. But with dogs, the difference is you can basically pick any dog and they will have that motivation and that eagerness to interact. Whereas with the cats, it's just a smaller number of cats that can even be bothered, especially if it's with a stranger.

A CELEBRATION OF DOGS

Just as humans have shaped the evolution of dogs through domestication, dogs have also shaped the evolution of human life. You can learn about the

important roles they have played in society, both as helpers and companions, through a new exhibition at the Lynn Museum in Norfolk, England. The exhibition, entitled Woof: A Celebration of Dogs, includes objects from Roman and medieval times; textiles made from dog hair; works by artists Andy Warhol and David Hockney; and an original painting of the Toy Bulldog breed, which became extinct around the time of the First World War. The exhibition continues until 29 June 2025. www.lynnmuseum.norfolk.gov.uk

Glossary

- **dumbed them down** = rendere stupidi
- **even bother** = prendersi la briga
- **prey** = prede
- **roughly** = approssimativamente
- **lizards** = lucertole
- **plot** = terreno
- **claim** = affermare
- **trained** = addestrare
- **fit** = adattarsi
- **in packs** = in branchi
- **traits** = tratti
- **well-being** = benessere
- **cues** = segnali
- **piglets** = maialini
- **roamed** = vagare
- **picking up on** = cogliere
- **stick insects** = insetti stecco
- **outlier** = eccezione
- **rabbits** = conigli
- **mammals** = mammiferi
- **bred** = allevare
- **skunks** = puzzole
- **thriving** = in espansione
- **it undergo** = sottoporsi a
- **outperform** = superare, ottenere risultati migliori
- **raising** = allevare
- **dumb** = stupido
- **of hang out** = passare il tempo
- **let’s face it** = affrontiamolo
- **tame** = addomesticato
- **cope with** = affrontare
- **nursery** = asilo
- **dine on** = cenare a base di

- **breeds** = razze
- **commands** = ordini
- **raccoons** = procioni
- **suitable** = adatti, appropriati