

Experiments with Domestication of Wild Animals (Reflection on Animal Psychology)

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Received: January 08, 2024; **Published:** August 02, 2024

Abstract

The article discusses the new trend of having wild animals (big cats, foxes, ferrets, etc.) in some homes, and it turns out that since they are raised from childhood, loved and cared for, they behave like pets (dogs and cats). The question is raised whether these animals can still be considered domestic or not. To solve, characteristics (concepts) are set that allow one to distinguish between wild and domestic animals, and the question is asked whether they can be applied to this case. To understand this new class of animals, the concept of “anthropic living” is introduced and it is shown that their psyche differs from the psyche of wild animals and is closer to domestic ones. An explanation is offered for the experiments of geneticist Dmitry Belyaev on the domestication of silver foxes. The author argues that the evolution of foxes was influenced by two factors - not only genetic selection, as Belyaev believed, but also the influence of the environment created by man, an environment conducive to the formation of anthropogenic creatures. At the end of the article, Belyaev’s hypothesis, according to which we are “self-domesticated” monkeys, whose innate psychological inclinations, behavior and social structure have radically changed under the influence of selection for reduced aggressiveness towards relatives, is compared with the author’s hypothesis about the role of signs in the origin of man. He shows that domestication occurred as a result of the transition of hominids to “paradoxical behavior,” which required the creation of a sign system based on a signaling system. The latter allowed hominids to act contrary to biological evidence at the command of the leader. A necessary condition for this was the imagination conditioned by signs, which helped to invent the first tools

Keywords: *Man; Wild Animals; Domestic Animals; Origin; Psyche; Behavior; Environment; Foxes; Experiment; Genetics*



Figure 1: *Maria and Alexander Dmitriev with puma Messi [9].*



Figure 2: Alexander with the cheetah Gerda.

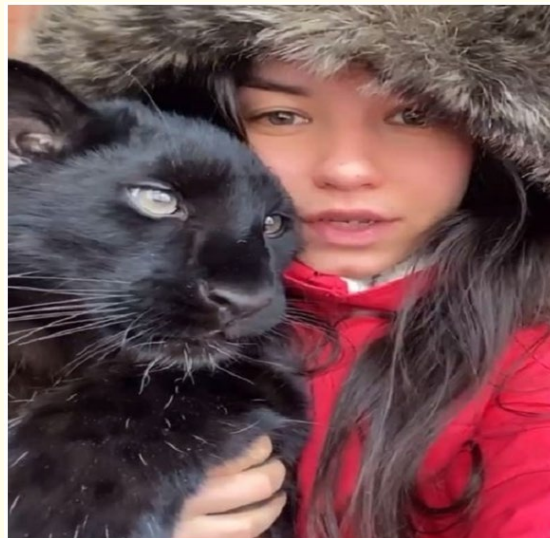


Figure 3: Victoria with the panther Luna [7].

For owners who have raised their pet animals since childhood, feed and care for them every day, love and kiss them, the question of whether their pupils are pets is certainly a strange one, who else? However, a question of this type has arisen in recent years for biologists, psychologists who study animals, and philosophers of life in connection with the creation of the unique Taigan Zoo, where sick puppies or abandoned wild animals are also often raised from childhood; in connection with the appearance in families, along with dogs and cats (though not yet in large numbers), of ferocious predators who turned out to be not ferocious at all, but quite domestic and affectionate. They look like ferocious predators, but in their behavior they are domestic animals (English: pet - pet, pet). However, the question is, are these still domestic or wild animals, and can they, under some circumstances, attack their owners?

I remember one incident in connection with this. In our family there was a beautiful big cat Timofey, but not neutered.



Figure 4: The author with the cat Timofey.

One day I walked out the door of my apartment and decided to remove a cardboard box that for some reason was standing there. Timofey ran out after me and began to sniff the box (the cat had obviously urinated on it). I pushed my pet away from the box with my foot. And suddenly Timofey rushed at me like lightning, tore my trousers and seriously injured my leg; it took several weeks to heal. How can this be, a domestic cat that often slept on me suddenly attacked its owner? And here is a puma, a cheetah, a panther, a wolf! It's time to pass a law prohibiting keeping such animals at home.



Figure 5: Alida with the she-wolf Kira [2].

But let's leave the emotions to the press and children and think scientifically.

Wild and domestic animals (distinctive characteristics): I would highlight four such characteristics:

- First, wild animals live on their own in nature, regardless of humans, domestic animals depend on the latter. "Animals that live on their own in their natural habitat are called wild. They take care of themselves, get food and build housing... The life of some animals

depends on humans. Animals that are specially bred by people are called domestic animals. A person feeds them, protects them, takes care of their offspring, creates all the necessary conditions for life" [3].

- Second, the behavior and connections between these two types of animals differ significantly, for example, in relation to humans and within the population.
- Third, the issue of differences in the psyche is also being discussed. One point of view is that the psyche of a domestic and wild animal is essentially the same, the other is no, they are significantly different.
- Fourth, the difference in the genesis (origin) of wild and domestic animals. The former were formed without human influence in accordance with Darwinian laws of natural selection, the latter in the process of domestication ("domestication") over about fifteen thousand years (artificial selection).

What does it mean, from the point of view of these distinctions, for a person to raise a wild animal in a family (let us conventionally call such an animal "anthroalive", from "anthropo" - attitude towards a person, "alive" - animal)? According to the first two characteristics, an anthroalive is a domestic animal, according to the third characteristic it is unclear which one, according to the fourth, it is partly wild, partly domestic animal. Let us now take into account this circumstance: the habitat of anthroalive is completely artificial, created by man. The latter, on the one hand, blocks all anthroalive instincts that are dangerous to humans (to attack, threaten, bite, pursue, etc.), on the other hand, it provides him with food and communication, primarily with himself and with other anthroalive creatures. For example, the panther Luna lives in a family with a dog. "The owner's dog, a Rottweiler named Venza, and Luna were wary of each other at first, but after a long process of getting used to it, they got along and even became friends. The owner notes that the panther and the dog are inseparable: they play together, run together on walks and explore the world around them together".

But if all instincts dangerous to a person are blocked and others are formed that ensure communication with a person (communication not with the help of human language, but "signals-signs" formed during the communication of a person with anthropogenic life; for the difference between signals and signs, see [p. 94 -98]), then we have to agree with those psychologists who claim that the psyche of domestic animals (including anthropologists) is different from that of wild animals. In this regard, an anthroalive is unlikely to attack and harm a person, unless by accident (such cases need to be analyzed separately).

Manifold acceleration of evolution through artificial selection: We will talk about the famous experiments of the Soviet geneticist Dmitry Belyaev, who was able to turn wild silver foxes into domestic ones. He believed that the key to the mechanism of domestication "lies in the principles of Mendelian inheritance"... Jason Goldman of Scientific American said: "Belyaev hypothesized that the anatomical and physiological changes observed in domesticated animals could be the result of selection on behavioral traits. More specifically, he believed that tameability was the decisive factor"... started with 30 male foxes and 100 female foxes, most of them from a commercial fur farm in Estonia." From the very beginning, Belyaev selected foxes solely for tameability, allowing only a tiny percentage of male offspring and a slightly larger percentage of females to breed. The foxes were not trained to be sure, that their tamability was the result of genetic selection and not environmental influences. For the same reason, they spent most of their lives in cages and were allowed only brief encounters with people... The only criterion for allowing them to reproduce was their tolerance for human contact...

After more than 40 generations of breeding, Belyaev produced "a group of friendly domesticated foxes... Many domesticated foxes had floppy ears, short or curly tails, a long reproductive season, changes in fur color and the shape of their skulls, jaws and teeth. They also lost their "musk fox" smell" [5]. "Externally, foxes also differed from their wild relatives. Their color became more spotted and lighter, and some foxes became almost completely white... At the moment, experts in the domestication of foxes state that their charges may well live nearby with humans, but not in apartments or houses, but in farmsteads. Their pets are unique: they get along with humans, but do not depend on him and are willful. They are not aggressive towards people and can be trained, but their cleanliness leaves much to be desired.

They live for about 10 years, while their wild counterparts are about 4. Foxes can be both hunting assistants and simply beautiful pets” [1].

I'll comment. As a geneticist, Belyaev believed that the evolution of animals is determined only by genetic selection, and not by environmental factors. But where, one wonders, did he get foxes for the experiment? From fur farms, where foxes lived in an artificial environment (they were raised, fed, cleaned, guarded, etc.), and they communicated with the people who looked after them. That is, these were anthroalives in the initial stage of development, and not purely wild animals (by the way, American biologists Elinor Carlson and Catherine Lord also noted that “the experiment began with the breeding of foxes that were not wild” [8]). Only those foxes were selected for breeding that were not afraid of people and were drawn to them for communication. It is not difficult to guess that the genes of these individuals have undergone a mutation, which Belyaev, at the level of behavior, called a sign of “tameability” (the desire to communicate with people and the absence of aggression). It was the foxes from this population (a kind of “anthroalives-philanthropists”) who were allowed to reproduce, which contributed, on the one hand, to a certain direction of gene transformation (on humans), and on the other, to further stages of the formation of anthroalive living. That is, the evolution of foxes was influenced by two factors - not only genetic selection, but also the influence of the environment created by man, an environment conducive to the formation of anthroalives creatures.



Figure 6: Domesticated male fox.

The role of the anthropological environment on the process of domestication of foxes is also evidenced by such an episode given in the book by Lee Alan Dugatkin and Lyudmila Trut “How to Tame a Fox (and Turn It into a Dog). Siberian evolutionary experiment”. “At that time it was believed that the domestication of animals took place slowly, over many millennia. What results can be achieved in several decades? However, here she is, Pushinka, a tame fox, so similar to a domestic dog. She responds to her nickname and follows the fur farm workers around the nursery; she loves to walk with Lyudmila along the quiet country roads in the vicinity of Novosibirsk, where the experiment is taking place. (Lyudmila Trut was Belyaev’s main assistant; she was responsible for organizing the experiment. - V.R.). Fluffy, we note, is just one of hundreds of tame foxes that are bred here.

Having settled with Pushinka in a house on the edge of the farm, Lyudmila began a new stage of research. Fifteen years devoted to the selection of tame foxes were crowned with complete success. Now it was necessary to find out whether Pushinka, living side by side with Lyudmila, would be able to develop a special affection for her, the same as domestic dogs feel for their owners. With the exception of cats and dogs, domesticated animals generally do not show strong “emotional” attachments to people. How and why did it arise in the first place? As a result of a long life together with a person? Or, conversely, in a very short period of time, what did our heroes observe in the example of tame foxes? And will even such a domesticated fox as Pushinka feel comfortable under the same roof with a person?

Lyudmila chose Pushinka to be her companion at first sight, when she was still an adorable puppy of three weeks old and frolicking in the company of her brothers and sisters. Looking into Pushinka's eyes, Lyudmila felt a feeling of kinship that she had never experienced before while working with other foxes. Fluffy was generally unusually inclined to contact people. If Lyudmila or one of the farm workers approached her, the fox began wagging her tail in excitement, whining and looking at the person impatiently. This was unmistakably perceived as a request: stop and stroke me. And then no one could resist.

A year later, when Pushinka became an adult, acquired a partner and was expecting the birth of fox cubs, Lyudmila decided to take her into the house. Now it was possible not only to observe how the fox would adapt to a new way of life, but also to see how the socialization of her offspring would go in comparison with other fox cubs born on the farm. And so, ten days before giving birth, on March 28, 1974, Pushinka was placed in a new place of residence.

... a house with an area of just over 60 square meters. It consisted of three living rooms, a kitchen and a bathroom. The room where Lyudmila placed a bed, a small sofa and a desk served her as both a bedroom and an office. In the second room they built a shelter for Pushinka, and the third became common. There were several chairs and a table there; it was possible to have lunch and receive visitors. Fluffy was allowed to move freely throughout the house.

Early in the morning, as soon as she got into the house, Pushinka became excited. She ran nonstop from room to room. This was very unusual, as pregnant foxes usually spend most of their time lying quietly in their burrows. Finally, after rummaging through the shavings that covered the floor of her shelter, Fluffy calmed down, but soon jumped up again and began circling around the house. Every now and then she ran up to Lyudmila so that she could caress her, but even after that Pushinka was very excited. It was clear that the unusual new surroundings worried her extremely. She hadn't eaten anything all day, except for a piece of cheese and an apple, which Lyudmila gave her from her breakfast.

Later, Lyudmila's daughter Marina and her friend Olga joined the new settlers, and they spent the day of the great move together. But then it was eleven in the evening, and Fluffy was still running restlessly from room to room. It was time to sleep, and the girls, covered with blankets, lay down on the floor near Lyudmila's bed. When they dozed off, Fluffy silently slipped into the room and lay down next to her. She finally calmed down and also fell asleep. Lyudmila was relieved. Several months will pass, and she will finally be convinced that this little fox not only lives well next to her, but has also become as loyal as the most devoted of dogs" [4, p. 4-5].

If in about two or three decades it was possible to domesticate wild foxes, then why is it impossible to domesticate big cats (tigers, pumas, panthers, lions, cheetahs), as well as wolves or crocodiles. For what? Well, at least for large zoos or individual lovers of these animals who want to live with them.

All is not well in the Kingdom of Denmark. It is a commonplace that people continue to crowd out large wild animals, depriving them of their habitat and hunting them. Many species have already disappeared, others are threatened with extinction, and still others are forced to huddle in a shrinking territory. People increasingly need land for goats, cows, horses, pigs, poultry, and agricultural land. By the way, it's a paradox - our anthropo-lives, big cats are fed the meat of these domestic animals. Another paradox or, perhaps, a kind of schizophrenia: an ever-increasing army of animal lovers calmly turns a blind eye to the fact that their pets eat the meat of domestic animals, which are raised and killed, including for feeding their beloved pets. I'm not even talking about modern disputes like: do animals have a soul or the right to life?

It is unlikely that vegetarianism and some religions can solve all these problems, as long as everything goes in the exact opposite direction of increasing the production of meat from domestic animals. And it is unlikely that the trend of reduction in the habitat of large

wild animals and the disappearance of some species of these animals will be stopped in the near future. Doesn't this mean that, on the one hand, the number of zoos will grow, in particular, such as "Taigan", where the number of anthroalives animals will increase, on the other hand, the community of anthroalives animal lovers (such as big cats and other exotic animals) will gradually grow), not excluding those people who want to raise such anthroalives from childhood and live with them as with ordinary dogs and cats.

The ice will probably break only when people realize that they are living incorrectly, have brought life on earth to the brink of disaster, and come to the understanding that it is necessary to comprehend modern life in order to change it. One aspect of such understanding and change will also concern the relationship between man and nature and animals. Since a person is also an animal, he will have to reconsider his attitude towards himself. For example, does it look like a domesticated predator, i.e. anthropoliving? Especially when it comes to the first stages of its origin. Belyaev formulated roughly the same assumptions.

"One of Belyaev's most daring and innovative ideas", he writes in the preface to the book "How to Tame a Fox (and Turn It into a Dog). Siberian evolutionary experiment" Doctor of Biological Sciences, Head. Department of Biological Evolution, Faculty of Biology, Moscow State University A.V. Markov, was that the patterns discovered during the experiment are partly applicable to human evolution. Belyaev believed that in a certain sense we are "self-domesticated" monkeys, whose innate psychological inclinations, behavior and social structure have radically changed under the influence of selection for reduced aggressiveness towards relatives (selection for social tolerance and conformity, as experts say these days).

It often happens that at the end of their scientific career, honored scientists begin to put forward too bold ideas, which are subsequently not confirmed. But this does not apply to Belyaev's ideas about anthropogenesis: they just sound surprisingly modern and are confirmed over and over again by newly discovered facts of paleoanthropology, genetics and neurochemistry. Today, on the basis of these new facts (and sometimes, unfortunately, forgetting to refer to Belyaev, who foresaw all this), many anthropologists have begun to lean towards the idea that in the early stages of hominid evolution there actually was selection for reduced intra-group aggression. It led to a whole range of consequences: from an increase in dopamine levels and a decrease in acetylcholine levels in key parts of the brain responsible for motivating behavior (this could promote social conformity), to a reduction in secondary male sexual characteristics associated with aggressive behavior (such as large fangs), reducing sexual dimorphism, increasing male investment in offspring and strengthening emotional ties between marriage partners. All this, in turn, created the prerequisites for the development of intra-group cooperation, giving our ancestors the opportunity to develop complex and at the same time very profitable forms of behavior, such as joint hunting of large game and the manufacture of stone tools" [4, p. 3].

Conclusion

This hypothesis of Belyaev, that at the early stages of the origin of man he was a self-domesticated ape, nicely complements my research on anthropogenesis. I show that domestication occurred as a result of the transition of hominids to "paradoxical behavior", which required the creation of a sign system based on a signaling system. The latter allowed hominids to act contrary to biological evidence at the command of the leader. A necessary condition for this was the imagination conditioned by signs, which helped to invent the first tools [6, p. 87-104].

I would like to end the article on an optimistic note. It seems to me that the process of revising man's attitude not only towards animals, but also towards himself is currently unfolding. We may be experiencing one of the last outbursts of aggressive human behavior on earth. In any case, I would like to believe so.

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Volume 13 Issue 8 August 2024

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