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Our scientific approach

Intelligence efficiency and cooperation ability in wolves and dogs

Why just **wolves** and **dogs**? What are the **questions** and **aims**? And why is the **pack-keeping** of the dogs an essential part of our work?

Our research approach makes us a unique institution worldwide.

Why wolves & dogs?



[A rapturous welcome to Aragorn by some puppies](#)

The **core of our scientific interest** is the ability and the readiness for cooperation in wolves and dogs, and what kind of intellectual strategies they are using in doing so. In short, we investigate **the cognitive and cooperative abilities of wolves and dogs**, particularly in context to their **social relationship** among fellows and human partners.

This concerns a fascinating subject of research and is of high relevance, for it's still mysterious, why – in particular the **wolf** - became in the manifold shape of dogs the **closest animal buddy of man**. This long-term relationship may be result of the similar lifestyles of both species, being hunter and gatherers as well. Wolves like humans show close cooperation in hunting and in caring for their offsprings within their clans, but also in partly cruel conflicts with their neighbours.

Human beings are conditioned for cooperation nearly always and everywhere: we help good friends, when they are moving the flat, look after their children and build houses together. In economy we often cooperate with even unknown partners. This cooperative attitude of man starts developing already in the early childhood and distinguishes us from all other kinds of animals, thus supposed so far – or maybe not?

Our interest in wolves results not only in their manlike cooperative „attitude“, but primarily, however, because the **wolf** is the ancestor of his **domesticated descendants** – the **dogs**. Therefore we want to investigate, what happened to the cognitive and cooperative characteristics of dogs during domestication in comparison to wolves. “**domestication**” means to us all **genetic alterations**, primarily due to the **selection of tameness**, which led to an **adaption to a specific way of life in a environment dominated by humans**. **Human socialised growing up does not count for domestication**. Thus our wolves are in spite of their social relation with us humans “domesticated” in no way; they are tame wild animals.

Dogs as domesticated wolves became important partners, allies and assistants of men. In our life they play different roles, not only because of their sensory performance, but mainly because of their exceeding ability of learning and adaptiveness to our social life as well.



The dog is an important social partner

Dogs ...

- Watch over our homes
- Support people with special needs
- Are effective assistants in therapies and education
- Help the action forces with their work and collaborate in hunting
- And – in particular – are important social partners in our society.
- Dogs are not at all mere adaptive slaves. They are able to use their mental abilities also in an independent way, make their own decisions and thus distinguish themselves as genuine partners.

The ability and the will to cooperate is presumed to be the base and the core of human social systems, as well as in the social systems of some canidae, e.g. the wolf, the African wild dog or the Indian wild dog = dhole. Thus **wolves and dogs are excellent model systems**, to investigate the cooperation with their conspecifics as well as with man and to find out to what extent the domestication respectively living together with man influenced these abilities.

Thereby wolves and dogs are likewise **good mirrors** of the “**condition humana**”. For only in comparing the extraordinary cooperative abilities of man with those of animals, we are able to understand following key characteristics of man in a better way:

- the social and psychological **mechanisms of cooperation**
- the **evolutionary origin**
- and the **functional relevance** (who is profiting when? ...).

Plenty of unanswered questions

What turned wolves into the **most successful top-predators** before repressed by man? Was it due to their **intelligence**, their **social solidarity**, their **ability to cooperate**? And was „becoming a dog“ from the wolves triggered by the similar social life styles, the shared interests and the disposition to cooperate of early man and wolves? Or did – quite contrary to that - the great likeness to „brother wolf“ by stone-aged hunters and gatherers lead to competition and elimination of the wolves?

A lot of people are very much interested in understanding, why and how wolves turned into dogs and why in particular dogs became the closest animal buddies of man. And there's also a lot of people with not yet clear reasons for being keenly interested in wolves – actually why? Our scientific research on wolves, dogs and humans will contribute to answer these questions.

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Some of our essential questions are:

Do the "**wolf-in-dog**"-characteristics enable dogs to their outstanding and spontaneous cooperation with man? Or is it due to domestication and thus new gained **social abilities**? Or is it rather a mixture of old and new features?

By what are **dogs discriminated from wolves**, and what do they have in **common**?

In which way are the **intellectual and the cooperative abilities** of wolves and dogs associated on one side with their **social relationships** among themselves and on the other side in the relationship to their human partners?

And how does the relationship between dogs and man depend on **early socialization** and training of the dogs as well as on the social features of the human partner?

Which **attitude** is shown by humans against **wolves compared** to that against **dogs**?

Our special interest focuses on the influence of the social relationships on the intellectual capacities of dogs and wolves, and how they affect the disposition of the animals to cooperate.

Questions upon questions – but we'll try in the coming years to get „**harmonious**“ and in terms of scientific methods **valid answers**, thus generating **plenty of new and exciting questions**. Because also “**objective research**“ will still remain an **interaction** between the „**what is**“ and the **recognitional need and ability in individuals as well as in the society**.

Our aims of research

At the Wolf Science Center we want to concentrate on the most relevant questions for basic research (see above). It will be the answers thereto, that would contribute to a better understanding of wolves, dogs and the man-dog-relationship. The chief aim therefore is to get comparable data concerning intellectual and cooperative abilities of wolves and dogs. And how these abilities are interwoven with the relational level as well as the reciprocal perception of wolves, humans and dogs.

The research at the WSC can be summarized in the relational triangle between wolf, dog and man.

As a consequence thereof we contribute to the comprehension of the human key-characteristics:

- Social intelligence,
- Ability to cooperate and
- Social (relational) psychology.

It becomes more and more important for the human society to **look in an objective way at the wolf** and at the **man-dog-partnership**. And that with regard to an improved education of dogs and a better forming of man-dog-teams as well as a rational base in using dogs in Animal Assisted Therapy, as search-dogs in catastrophes, police-dogs, etc.

Whether there will be sustainable **living together of wolves and man in Austria** ever again depends mainly to the attitude of man towards wolves. We took in hand to gather data of these attitudes and thus to provide factual correctives for the image of the wolf.

We also expect a **positive influence** of our work in practical domains, such as

- The choice and the **training** of dogs,
- The man-dog-partnership,
- The **use** of dogs in the field of **various therapies** and also
- On the **attitude of the society** towards dogs and wolves.

Comparable conditions for wolves and dogs

To achieve the **aims of our research** it is extremely important to create the **same conditions for wolves and dogs**. As you don't want to compare apples and oranges, you can't compare in no way pet-dogs – living 24 hours together with their mistress or master – with wolves in an enclosure. Not even, if the latter come into daily contact with man as in the WSC.

Pet-dogs make complete different experiences – they go along with us to town, to work, to visit strangers, sleep on the sofa (or even in the bed) and are educated and trained in a complete other way by the permanent presence of „their“ humans than animals in an enclosure. **Wolves in an enclosure normally don't make these experiences and therefore will react totally different in many situations than our pet-dogs would do.** Nevertheless these different reactions must have no bearing on genetic differences, but perhaps could be explained just by other experiences.



A couple of our wolves struggle for a piece of game



Rafiki, Hakima, Binti and Asali together in their enclosure

It's therefore most important for us to keep dog-packs as well, raised and trained most likely to our wolves -- for this is the only way to get valid conclusions about the differences, which were watched by us and figured out in our tests, to the genetic differences in the animals.

It is one of the great achievements at the WSC to work with indeed comparable wolves and dogs - one reason for its worldwide unique and exceptional status.