Psychobiologisches Kolloquium
Prof. Dr. Markus Heinrichs

Herzliche Einladung zum Vortrag:

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What can domestication tell us about human sociality? Comparing intraspecific and human-animal interaction of dogs and wolves.

Donnerstag 30.06.2011, 18 c.t. – 20 Uhr

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Stefan-Meier-Str. 8, 3. OG

ABSTRACT

According to the emotional reactivity hypothesis, during the course of (self-)domestication dogs and humans are likely to have gone through convergent evolutionary processes driven by selection for reduced fear and aggression. These selection processes are believed to promote more tolerant relationships, higher cooperativeness, and, in turn, the evolution of cognitive skills that further support cooperation. The oxytocin system is a good candidate to mediate such emotional changes, and comparing the responsiveness of dogs and wolves (which have not been subject to the same selection processes as dogs) to oxytocin would be an optimal method for investigating this issue. To date, the emotional reactivity hypothesis has only been tested through behavioural methods.

At the Wolf Science Center we compare wolves and dogs that have been raised and kept similarly and have been socialized by humans as well as by conspecifics. The relationships these animals have formed with familiar conspecifics and with familiar humans influence their behavioural responses in various situations, such as during group feeding, in a social learning task after observing repeated conspecific demonstration as well as in an object choice task where food can be located based on the gazing direction of either a conspecific or a human partner. The behavioural differences we found between dogs and wolves cannot be explained by the emotional reactivity hypothesis alone. We suspect that, beyond increased tolerance, parallel evolutionary changes in dogs affecting their cause-effect understanding and/or their sensitivity to others' dominance may also contribute to the observed wolf-dog behavioural differences. Given this complicated system, hormonal comparisons will be critical to identifying certain alterations of mechanisms underlying social behaviour.

Brief BIOSKECH

Zsófia Virányi

Zsófia Virányi is a biologist interested in animal cognition and behaviour. During her early work, she compared reasoning and social cognition in children, apes, monkeys, pigeons and especially dogs and wolves at the Department of Ethology, Eötvös Loránd University, Budapest, Hungary; Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany and at the Kyoto University, Japan. Later she worked on social learning at the Konrad Lorenz Institute for Evolution and Cognition Research, Altenberg, Austria, and has been coordinating the ESF Research Networking Programme "The Evolution of Social Cognition" (CompCog) (www.compcog.org). More recently, in collaboration with Friederike Range, she co-founded the Clever Dog Lab (www.cleverdoglab.at) and the Wolf Science Center (www.wolfscience.at), two independent research institutions where the intra- and interspecific relationships, communication and cognition of wolves and dogs (the latter kept either in packs or as pets) are compared in order to investigate the effects of domestication as well as of individual learning and training processes.