

I wanna talk like you (oo)

December 16 2011

The role of social structure in animal communication is hotly debated. Non-human primates seem to be born with a range of calls and sounds which is dependent upon their species. But overlying this there seems to be some flexibility - you can tell where a gibbon lives by its accent. New research published in Biomed Central's open access journal *BMC Evolutionary Biology* used Campbell's monkeys to look in detail at the nature versus nurture question and showed that non-human primate 'language', like humans, is learnt.

Researchers studied free-living Campbell's monkeys (*Cercopithecus campbelli campbelli*) from the Taï National Park, Ivory Coast. They observed social interactions (time spent grooming) and recorded 'contact calls' made while the females were travelling, foraging or resting. Genetic similarity (family relationships) was determined by microsatellite analysis of DNA isolated from droppings. These monkeys have lived close to the Taï Monkey Project Research Station for more than 10 years so their social structure and family groups are well known. Groups consisted of one male, four or six females, along with their offspring.

Dr Alban Lemasson who led the multi centre team explained, "Each female has its own distinctive vocalisation but they appear to pick up habits from each other. Similarities between 'contact calls' were dependent on the length of time adult females spent grooming each other (and who their grooming partner was) rather than genetic relatedness. This means that while the general call repertoire of non-human primates is dependent on genetic factors, the fine structure within this is

influenced by the company they kept. This behaviour also fits with the theory that human speech has evolved gradually from ancestral primate vocalisations and social patterns."

More information: Social learning of vocal structure in a nonhuman primate? Alban Lemasson, Karim Ouattara, Eric J Petit and Klaus Zuberbühler, *BMC Evolutionary Biology* (in press)

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