

Dr Nicola Koyama

Liverpool John Moores University, UK

“Coalition formation and exchange in chimpanzees and in Japanese macaques”

Patterns of coalition formation and the relationship between grooming and agonistic support are described in provisioned Japanese macaques (*Macaca fuscata*) and captive chimpanzees (*Pan troglodytes*). The central role of coalitions in the process of matrilineal rank acquisition and maintenance in many cercopithecin species is well documented. I investigated whether variation in rank inheritance is related to social network size and patterns of coalition formation in Japanese macaques.

Differences were found in the proportion of relatives with whom high- middle- and low-ranking females formed coalitions. Thus, levels of matrilineal clustering in the hierarchy appeared to reflect levels of social cohesion in terms of grooming and coalition formation. In chimpanzees, grooming has often been referred to as a social tool.

Data collected over three years were analysed to determine the temporal relationship between grooming given and agonistic support received. Among males, future recipients of support groomed their future supporters more the day before they received support when compared to the day before matched conflicts-without-support and so grooming appeared to increase the likelihood of support. This relationship between prior grooming and support only held true for aggressor support and not victim support and is consistent with behaviour expected if male chimpanzees anticipated the need for agonistic support. Female chimpanzees were expected to be less opportunistic than males and accordingly, were not found to groom potential supporters the day before an aggressor attack.

