

You scratch my back and I *might* scratch yours: the grooming habits of wild chimpanzees

Bystanders can influence the way adult male chimpanzees establish grooming interactions according to research by anthropologists at the University of Kent.

The results challenge existing theories and bring into question the long-held assumption that patterns of social interactions in chimpanzees and other primates reflect relationships that themselves indicate a level of trust between individuals.

The research was conducted by Dr Nicholas E. Newton-Fisher and colleague Dr Stefano Kaburu from Kent's School of Anthropology and Conservation. Published by the journal *Scientific Reports* (Nature Publishing Group), it reveals the clear influence of bystanders on grooming decisions, and, intriguingly, that such decisions did not appear to be based on prior grooming interactions.

It also found that with more bystanders – a larger audience – male chimps offered less grooming at the start of a bout, were more likely to abandon attempts to start a grooming interaction, and that their grooming efforts were less likely to be reciprocated.

The results suggest that the chimps' decisions on how much to invest in grooming interactions are based at least in part on whether there are other potential social partners close by.

While it is widely held that affiliative relationships, built up over a history of previous interactions, significantly shape future interactions, this was not supported by the research.

The findings therefore add to a growing body of evidence that grooming and other forms of social interaction in non-human primates are driven by considerations of direct benefits rather than relationships based on trust.

Wild chimpanzees were an ideal species with which to conduct the research because they live in large groups, associations between individuals are fluid, and social relationships variable.

For the study, entitled 'Bystanders, parcelling, and an absence of trust in the grooming interactions of wild male chimpanzees', Dr Kaburu and Dr Newton-Fisher studied the behaviour of chimpanzees in a 60-strong community from the Mahale Mountains National Park, Tanzania, which has been continuously studied for over 30 years. The chimpanzees were used to human observation and grooming interactions could be recorded in detail at close range.

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Notes to editors

Established in 1965, the University of Kent – the UK’s European university – now has almost 20,000 students across campuses or study centres at Canterbury, Medway, Tonbridge, Brussels, Paris, Athens and Rome.

It has been ranked: third for overall student satisfaction in the 2014 National Student Survey; 16th in the Guardian University Guide 2016; 23rd in the Times and Sunday Times University Guide 2016; and 22nd in the Complete University Guide 2015.

In the *Times Higher Education (THE) World University Rankings 2015-16*, Kent is in the top 10% of the world’s leading universities for international outlook and 66th in its table of the most international universities in the world. The THE also ranked the University as 20th in its ‘Table of Tables’ 2016.

Kent is ranked 17th in the UK for research intensity (REF 2014). It has world-leading research in all subjects and 97% of its research is deemed by the REF to be of international quality.

Along with the universities of East Anglia and Essex, Kent is a member of the Eastern Arc Research Consortium (www.kent.ac.uk/about/partnerships/eastern-arc.html).

In 2014, Kent received its second Queen’s Anniversary Prize for Higher and Further Education.