

# Great apes 'play' tag to keep competitive advantage (w/ Video)

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GORILLAS PLAY TAG CHASE

(PhysOrg.com) -- Gorillas hit-and-run in 'games' of tag in the same way humans do and for the same reason - to keep their competitive advantage, a new study has found.

It is the first study to show [apes](#), like humans, will hit a playmate then run in order to try to get away with the upper hand.

The research was carried out by behavioural biologist Dr Marina Davila Ross of the University of Portsmouth and colleagues lead author Edwin van Leeuwen from the Free University of Amsterdam and Dr Elke Zimmerman from the University of Veterinary Medicine in Germany. The paper is published in the Royal Society journal *Biology Letters*.

The research is the first to consider if animals respond to unfair situations in a natural social setting. Previous studies have all been carried out in laboratories.

Dr Davila Ross said: "This study shows a new opportunistic side to apes.

"Our findings on gorilla play show important similarities with the children's game of tag. Not only did the [gorillas](#) in our study hit their playmates and then run away chased by their playmates, but they also switched their roles when hit so the chaser became the chased and vice versa.

"Experimental research has already demonstrated that animals with the disadvantage in an unfair situation show an aversion to the unfairness so with that knowledge and our own study we can conclude that humans are not unique in their ability to change their behaviour in [social situations](#) depending on whether they have the advantage or disadvantage in an unfair situation.

Scientists cannot categorically state that gorillas play tag but those observed show the same behaviour as humans.

Dr Davila Ross said such unfair play behaviours are likely to be valuable because they allow apes - and humans - to test the limits of what is acceptable behaviour and to test their peers and even their parents.

She said: "This study is the first to empirically show that apes use play to explore the ramifications of unfair social situations."

The study also revealed that a hard hit resulted in a bigger reaction than a gentle hit, which was likely to be ignored.

The researchers studied the behaviour of great apes at play because their behaviour is less likely to be affected by the strengths and ranks of the competitors as they would be in a serious context, such as interactions related to food.

Dr Davila Ross said it was likely that the lessons learned in play fighting helped apes deal with real conflict, and that by 'role-playing' the chaser and

the chased the apes would develop more refined and sophisticated communication skills. The study indicated that these chase roles of the gorillas were distinct with the ones doing the chasing predominantly showing a play face and hitting the other ones once they reach them.

Dr Davila Ross is an expert in primate behaviour with special interest in play and laughter and a research fellow in Portsmouth's psychology department. She and colleagues studied videos of 21 gorillas from six colonies play fighting in five European zoos. The videos on these specific chase behaviours were filmed and collected by Dr Davila Ross over a period of three years.

Provided by University of Portsmouth

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