

Chimpanzee uses innovative foresighted methods to fool humans

May 10 2012

Chimpanzee Santino achieved international fame in 2009 for his habit of gathering stones and manufacturing concrete projectiles to throw at zoo visitors. A new study shows that Santino's innovativeness when he plans his stone-throwing is greater than researchers have previously observed. He not only gathers stones and manufactures projectiles in advance; he also finds innovative ways of fooling the visitors. The study, which was carried out at Lund University, has been published in *PLoS One*.

The new study looked at the chimpanzee's ability to carry out complex planning. The case study shows how humans' closest [relatives](#) in the [animal kingdom](#) appear to be able to plan to deceive others, and that they can also plan their deception inventively. The behaviour of the chimpanzee Santino is of particular interest because it is done while the humans to be deceived are out of sight. That means that the chimpanzee can plan without having immediate perceptual feedback of his goal – the visitors to the zoo – to aid in his planning.

The subject of the study is Santino the chimpanzee, who achieved international fame in 2009 for his [habit](#) of gathering stones and manufacturing concrete [projectiles](#) to throw at visitors from the safety of his enclosure at Furuvik Zoo north of Stockholm. His behaviour was reported as an example of spontaneous planning for a future event, in which his psychological state was visibly quite different from that of his subsequent aggressive displays. Previously, such cognitive abilities had been widely believed to be restricted to humans.

The new study sought to collect more detailed data on Santino's projectile-throwing behaviour over the course of the 2010 zoo season.

In the new study, the chimpanzee continued and extended his previous behaviour of caching projectiles for later use in aggressive throwing displays. The new behaviour involved innovative use of concealments: both naturally occurring ones and ones he manufactured from hay. All were placed near the visitors' area. This allowed Santino to throw his missiles before the crowd had time to back away.

The first hay concealment was made after the zoo guide had repeatedly backed visitors away when the chimpanzee made throwing attempts. All concealments were made when the [visitors](#) were out of sight, and the hidden projectiles were used when they returned. In order to make the hay concealments the chimpanzee had bring the hay from the inside enclosure.

Over the course of the season, the researchers observed that the use of concealments became the chimpanzees preferred strategy. Moreover, Santino combined two deception strategies consistently: hiding projectiles and inhibiting the displays of dominance that otherwise preceded his throws.

The new findings suggest that [chimpanzees](#) may be able to represent the future behaviour of others while those others are not present. It is also critical that the chimpanzee's initial behaviour produced a future event, rather than merely preparing for one that had reliably occurred before. This in turn, suggest a flexible planning ability which, in humans, relies on creative re-combining of memories, mentally acted out in a 'what if' future scenario.

Provided by Lund University

Citation: Chimpanzee uses innovative foresighted methods to fool humans (2012, May 10)
retrieved 24 April 2024 from
<https://phys.org/news/2012-05-chimpanzee-foresighted-methods-humans.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.