



FEATURES

29 December 2011 Last updated at 17:01

Chimpanzees consider their audience when communicating

By Victoria Gill

Science reporter, BBC Nature

Chimpanzees appear to consider who they are "talking to" before they call out.

Researchers found that wild chimps that spotted a poisonous snake were more likely to make their "alert call" in the presence of a chimp that had not seen the threat.

This indicates that the animals "understand the mindset" of others.

The insight into the primates' remarkable intelligence will be published in the journal *Current Biology*.

The University of St Andrews scientists, who carried out the work, study primate communication to uncover some of the origins of human language.

To find out how the animals "talked to each other" about potential threats, they placed plastic snakes - models of rhino and gaboon vipers - into the paths of wild chimpanzees and monitored the primates' reactions.

"These [snake species] are well camouflaged and they have a deadly bite," explained Dr

Catherine Crockford from University of St Andrews, who led the research.

"They also tend to sit in one place for weeks. So if a chimp discovers a snake, it makes sense for that animal to let everyone else know where [it] is."

The scientists put the snake on a path that the chimps were using regularly, secreting the plastic models in the leaves.

"When [the chimps] saw the model, they would be quite close to it and would leap away, but they wouldn't call," she told BBC Nature.

"It wasn't a knee-jerk reaction."

After leaping away, each chimp immediately, very carefully, approached the snake again. And this time, they would make a soft "hoo" sound if they were close to a chimp that was not aware the snake was there.

"We monitored the snake all day, so we knew which animals had seen it and which hadn't," Dr Crockford explained.

She added that when the primates called out, They were "very focused on their audience".

"That's not entirely new," she said.

"Lots of animals give alarm calls and are more likely to give an alarm call [when another animal is present]."

But what is new here, she continued, is that "they seem tuned, not into who the audience is, but to what the audience knows".

These findings, Dr Crockford said, provide an important insight into a factor that may have "kick-started" complex communication.

She explained: "Why would I bother to communicate something to you unless I realised that you didn't already know it?"

"Now we have seen that these chimps, human's close relatives, seem to recognise ignorance and knowledge in others.

And they're motivated to communicate missing and relevant information to that individual.

It's one of the things that's been missing from the evolution of language story."

Matthew Cobb, professor of zoology at the University of Manchester, explained that "imagining what another individual is thinking" is a crucial part of human language.

"This study gives us some insight into how this amazing ability may have evolved," he told BBC Nature.

"In the wild, faced with a natural stimulus, our close cousins the chimps alter their communication depending on what other chimps know.

It appears that humans aren't quite so unique, after all."



BBC © 2011 The BBC is not responsible for the content of external sites. [Read more.](#)