

Researchers link wild chimpanzee gestures to language evolution

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(Phys.org) -- A Stirling researcher has identified between 20 and 30 manual gestures used by a community of wild chimpanzees, used to communicate with others in a range of activities including nursing, feeding, sex, aggression and defence. At least a third of these gestures may be shared with humans and these similarities may help us to discover how humans evolved language.

Postgraduate researcher, Dr Anna Roberts, found that [chimpanzees](#) use arm beckoning gestures to make another approach them, flail their arms to make another leave, use begging gestures to make others pass food and clap their hands to express excitement.

The study is the first to show that wild chimpanzees are so close to

humans in terms of their communicative abilities and these gestures suggest that the [common ancestor](#) of humans and chimpanzees must have used similar manual gestures.

Dr Roberts said: “Chimpanzees use these gestures intentionally to elicit a desired response from other chimpanzees and they may be the missing link between ape and human communication”.

“We now know that these gestures must have been in the repertoire of our common ancestor and might have been the starting point for language evolution. Manual gesture in chimpanzees is controlled by the same brain structures as speech in the [human](#) brain.”

Dr Roberts discovered that chimpanzees not only communicate using manual gestures, but they are able to work out what the signaller means from both gesture and accompanying context.

“Chimpanzees not only use similar manual gestures to humans,” says Dr Roberts, “but the way they use these gestures is also very similar to the way humans gesture and use language. The defining way that people understand communication with others is by figuring out what someone really means by ‘mind-reading’ their intentions and we have discovered that chimpanzees may have a similar ability.

“We are all interested in what distinguishes us from animals and the defining feature of humans is language. Language allows us to co-operate, to learn from each other and to create cohesive society. No other species has been found to have such a complex and flexible system of communication but we know very little about how we came to have language.”

Dr Roberts concludes: “The ability to co-operate and learn from others paved the way for language evolution. If chimpanzees learn the precise

structure of their [gestures](#) from others, this means that the fundamental cognitive skills required for language evolution are already present in our closest living relatives.”

Provided by University of Stirling

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