

Chimpanzees exaggerate their screams when under attack

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Research by the University of St Andrews shows that chimpanzees vary their screams depending on the severity of the attack and that they can exaggerate the nature of the attack, but only if higher ranking group members are in the audience. The way they scream provides nearby listeners with important cues about the nature of the attack.

The research team, comprising of Dr Katie Slocombe and Dr Klaus Zuberbuhler, found that victims' screams change in acoustic structure according to the severity of aggression experienced. Screams given in response to severe aggression (chasing or beating) are longer, higher in frequency and given in longer slower bouts than screams given to mild aggression (charges and threats).

The study, conducted with wild chimpanzees in Budongo Forest, Uganda, also shows that victims are sensitive to the composition of the audience and modify the structure of their screams accordingly. When faced with severe aggression, victims modify their screams to exaggerate the level of aggression faced, but only if there is a chimpanzee in the audience who is equal or higher ranking than the aggressor (ie a chimp capable of challenging the aggressor and helping the victim). This audience effect only occurs with severe aggression, not mild aggression, showing they only modify their calls when they most need help.

Dr Slocombe said, "We conclude victims use screams flexibly to recruit help from others and have a complex understanding of third party relations. They know exactly who can challenge who, and this knowledge

of social relationships influences their vocal production. This shows there is more flexibility in their vocal communication than previously thought".

The study is published in the *Proceedings of the National Academy of Sciences* (Monday, October 15, 2007).

Source: University of St Andrews

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