Humans found able to infer behavioral information from chimpanzee vocalizations

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A team of researchers from the University of Amsterdam, the University of York and the Max Planck Institute for Evolutionary Anthropology, has found evidence of human ability to infer behavioral information from chimpanzee vocalizations. In their paper published in *Proceedings of the Royal Society B*, the group describes experiments they conducted

with human volunteers listening to chimpanzee vocalizations and what they found.

Prior research has shown that humans are able to interpret a wide variety of animal vocalizations, from cats purring, to dogs yelping to lions roaring. But to date, research on the extent of such abilities has been lacking. In this new effort, the researchers sought to learn more about how well humans interpret vocalizations from a closely related species—the chimpanzee. To that end, they designed and carried out to two experiments, both of which involved asking 3,400 human volunteers to listen to chimpanzee vocalizations and to then try to identify their context.

In the first experiment, the researchers asked volunteers to select the best of 10 behavioral categories they suspected a sound might be associated with but found the volunteers were not able to do so. They then tried another approach, asking the volunteers to respond simply yes or no when a sound they heard matched a behavioral word shown on a computer screen. The behavioral traits that were tested included chimpanzees as they were—separated from their mother, tickled, attacked by an aggressor, being threatened, refused a food they liked, or a food they did not like, discovering a large amount of food, happening upon something that scared them or as they were copulating.

The researchers found that the volunteers were remarkably good at connecting vocalizations with some behaviors but not very good at others. They could connect the sounds made by chimps discovering a good meal, for example, or when being denied a food they really liked but were not very good at associating sounds made during copulation, or when a youngster was separated from its mother. They suggest that overall, the volunteers were best at connecting highly aroused negative vocalizations with their associated behaviors. They further suggest this may be related to cross-species identification of vocalizations related to

survival skills in the wild.

More information: Roza G. Kamiloğlu et al. Human listeners' perception of behavioural context and core affect dimensions in chimpanzee vocalizations, *Proceedings of the Royal Society B: Biological Sciences* (2020). DOI: 10.1098/rspb.2020.1148