

Monkeys use 'baby talk' to interact with infants

August 24 2007



Female rhesus monkeys use special vocalizations when interacting with their infants, the way human adults use "baby talk," to engage babies' attention.

Credit: Dario Maestriperi, University of Chicago

Female rhesus monkeys use special vocalizations while interacting with infants, the way human adults use motherese, or "baby talk," to engage babies' attention, new research at the University of Chicago shows.

"Motherese is a high pitched and musical form of speech, which may be biological in origin," said Dario Maestriperi, Associate Professor in Comparative Human Development at the University. "The acoustic structure of particular monkey vocalizations called girneys may be adaptively designed to attract young infants and engage their attention, similar to how the acoustic structure of human motherese, or baby talk,

allows adults to visually or socially engage with infants.”

In order to determine if other primates also use special vocalizations while interacting with infants, researchers studied a group of free-ranging rhesus macaques, which live on an island off the coast of Puerto Rico. They studied the vocalizations exchanged between adult females and found that grunts and girneys increased dramatically when a baby was present. They also found that when a baby wandered away from its mother, the other females looked at the baby and vocalized, suggesting that the call was intended for the baby.

“Adult females become highly aroused while observing the infants of other group members,” explains lead author of the article, Jessica Whitham, a recent Ph.D. graduate of the University of Chicago, who investigated this topic as a doctoral student at the University and currently works at Brookfield Zoo near Chicago. “While intently watching infants, females excitedly wag their tails and emit long strings of grunts and girneys.

“The calls appear to be used to elicit infants’ attention and encourage their behavior. They also have the effect of increasing social tolerance in the mother and facilitating the interactions between females with babies in general. Thus, the attraction to other females’ infants results in a relatively relaxed context of interaction where the main focus of attention is the baby,” Maestriperi and his colleagues write in the article, “Intended Receivers and Functional Significance of Grunt and Girney Vocalizations in Free-Ranging Rhesus Macaques” published in the current issue of the journal *Ethology*. In addition to Whitham and Maestriperi, Dr. Melissa Gerald, a researcher at the University of Puerto Rico, was also a co-author.

Researchers have long been interested in the noises that non-human primates make and how they are used for communication. Monkey

vocalizations could be carrying information that the sender expects the recipient to understand, or they could be noises that the recipient can draw inferences from, but are not intended to carry information. A human sneeze, for instance, is a noise that people understand may be associated with a cold, but it did not develop evolutionarily to convey information.

The study by Maestriperi's team showed that the grunts and girneys emitted by the rhesus macaques fall into the category of vocalizations not intended to convey specific information, and appear to be used to attract other individuals' attention or change their emotional states. When females vocalize to young infants, however, the infants' mothers infer that the females simply want to play with the infants and are unlikely to harm them. Therefore, these vocalizations may facilitate adult females' interactions not only with infants, but with the infants' mothers as well. They found, for instance, that the grunts and girneys were sometimes followed by an approach and grooming of the mothers.

Additionally they discovered that, unlike human mothers, the rhesus macaque mothers did not direct grunts or girneys toward their own offspring. It could be that the monkey mothers are familiar with their own offspring and use the vocalizations with other babies because they are excited about the novelty of seeing a new infant, Maestriperi said.

Source: University of Chicago

Citation: Monkeys use 'baby talk' to interact with infants (2007, August 24) retrieved 27 April 2024 from <https://phys.org/news/2007-08-monkeys-baby-interact-infants.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.