

Bonobos found to focus more on feel-good imagery than danger or aggression

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Bonobo. Photo taken by Kabir Bakie at the Cincinnati Zoo.

(Phys.org)—A small team of researchers in The Netherlands has found that Bonobos, unlike humans and chimpanzees, tend to focus more on feel-good images than on images featuring danger or aggression. In their paper published in the *Proceedings of the National Academy of Sciences*, the team describes experiments they conducted with several captive bonobos and what they learned about both the bonobos and us humans.

Bonobos are apes that look very much like chimpanzees, but unlike chimps, they are rarely aggressive, preferring to settle their differences by engaging in non-reproductive sexual encounters and other bonding experiences. Bonobos are also different from chimps and humans in that they live in a matriarchal-type society—the females run things. Because of their gentle good nature, bonobos have been the subject of much study, as we humans try to understand why we are so much more violent.

In this new effort, the researchers enlisted the assistance of four female bonobos, asking them to participate in dot-probe tasks, which consisted of sitting and watching as two images were projected onto a screen, side-by side. When the images were removed a single dot was shown in the spot where one of the pictures had been displayed. The bonobo got a treat after pointing at the spot. The purpose of the exercise was to determine which of the pictures that preceded the dot held more fascination for the bonobo. The experiment consisted of running 13 such tests in each session and 25 sessions in all.

In looking at their results, the researchers found that the bonobos located the dot more quickly when looking at pictures that showed other bonobos in an emotional state—and in general, a positive emotional state. More specifically, they found that the bonobos were more focused on images of grooming, copulation, and most of all yawning, than on images of aggression or danger. Similar experiments run on humans and chimpanzees, the researchers note, have found that both species tend

http://phys.org/print377340167.html

to react more quickly to images depicting danger or aggression.

The researchers suggest that their findings back up other observations of bonobos that has shown that bonding is an important part of their existence in their natural environment, where it is generally more important that individuals correctly read the emotions of others, than hostile actions by other species.

More information: Mariska E. Kret et al. Bonobos () show an attentional bias toward conspecifics' emotions, *Proceedings of the National Academy of Sciences* (2016). DOI: 10.1073/pnas.1522060113

Abstract

In social animals, the fast detection of group members' emotional expressions promotes swift and adequate responses, which is crucial for the maintenance of social bonds and ultimately for group survival. The dot-probe task is a well-established paradigm in psychology, measuring emotional attention through reaction times. Humans tend to be biased toward emotional images, especially when the emotion is of a threatening nature. Bonobos have rich, social emotional lives and are known for their soft and friendly character. In the present study, we investigated (i) whether bonobos, similar to humans, have an attentional bias toward emotional scenes compared with conspecifics showing a neutral expression, and (ii) which emotional behaviors attract their attention the most. As predicted, results consistently showed that bonobos' attention was biased toward the location of the emotional versus neutral scene. Interestingly, their attention was grabbed most by images showing conspecifics such as sexual behavior, yawning, or grooming, and not as much—as is often observed in humans—by signs of distress or aggression. The results suggest that protective and affiliative behaviors are pivotal in bonobo society and therefore attract immediate attention in this species.

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