

Chimpanzees respond to infant death nearly same as humans

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Chimpanzee mother with 1-month-old infant. Credit: Katherine Cronin, Max Planck Institute for Psycholinguistics

(PhysOrg.com) -- For the first time, researchers of the Max Planck Institute for Psycholinguistics in the Netherlands report in detail how a chimpanzee mother responds to the death of her infant. The chimpanzee mother shows behaviors not typically seen directed toward live infants, such as placing her fingers against the neck and laying the infant's body on the ground to watch it from a distance. The observations of Katherine Cronin and her team provide unique insights into how chimpanzees, one of humans' closest primate relatives, learn about death.

The research team conducted their observations at Chimfunshi Wildlife Orphanage Trust in Zambia, where wild-born [chimpanzees](#) who have

been rescued from illegal trade live in the largest social groups and enclosures in the world. Dr. Katherine Cronin and Edwin Van Leeuwen of the Max Planck Institute for Psycholinguistics collaborated with Innocent Chitalu Mulenga of Chimfunshi and Dr. Mark Bodamer, a professor of Psychology at Gonzaga University in Washington State, USA.

Chimpanzee mothers typically are in close contact with their offspring for several years, carrying them almost continuously for two years and nursing until they are four to six years old. The close relationship between the mother and offspring continues for several years after weaning, and is one of the most important relationships in chimpanzee life.

Premature death

Cronin and her colleagues observed the behavior that a female chimpanzee expressed toward her 16-month-old infant who had recently died. After carrying the infant's dead body for more than a day, the mother laid the body out on the ground in a clearing and repeatedly approached the body and held her fingers against the infant's face and neck for multiple seconds. She remained near the body for nearly an hour, then carried it over to a group of chimpanzees and watched them investigate the body. The next day, the mother was no longer carrying the body of the infant.

Nearly nothing is known about how primates react to [death](#) of close individuals, what they understand about death, and whether they mourn. The MPI researchers therefore believe to have reported a unique transitional period as the mother learned about the death of her infant, a process never before reported in detail. But they largely refrain from interpretation, while providing extensive video to allow viewers the opportunity to judge for themselves what chimpanzees understand about

death.

"The videos are extremely valuable, because they force one to stop and think about what might be happening in the minds of other primates," Cronin says. "Whether a viewer ultimately decides that the chimpanzee is mourning, or simply curious about the corpse, is not nearly as important as people taking a moment to consider the possibilities."

Mother-infant bond

Previous reports have documented chimpanzee mothers carrying their deceased young for days or weeks, demonstrating that the severing of the mother-infant bond is incredibly difficult for chimpanzees. The current research complements these observations and sheds new light on how chimpanzees might learn about death.

"These data contribute to a small but growing body of data on how nonhuman primates respond to death. We hope these objective accounts will continue to accumulate and eventually allow researchers to take a comprehensive look at the extent to which nonhuman primate understand death, and how they respond to it."

Similarities to humans

"Chimfunshi provides an amazing opportunity to conduct behavioral observation of chimpanzees living in large multi-age social groups in naturalistic conditions in the largest enclosures in the world, the closest to observing chimpanzees in the wild," says Mark Bodamer of Gonzaga University. "It was only a matter of time, and the right conditions, that chimpanzees' response to death would be recorded and subjected to analysis that would reveal remarkable similarities to humans."

More information: Katherine A. Cronin, et al. Behavioral response of

a chimpanzee mother toward her dead infant, *American Journal of Primatology*, online-Veröffentlichung 21. January 2011, [DOI: 10.1002/ajp.20927](#)

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