

## Primal mirth is no laughing matter

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At the Science of Consciousness meeting in Tucson, Arizona, surgeons discovered why they should hold their tongues and laboratory rats enjoyed a bit of a giggle

HEARD the one about the giggling lab rat? Psychologists in the US claim to have the first credible evidence that animals other than humans and our close cousins are capable of laughter.

For years, biologists have known that chimpanzee and even some monkeys produce a panting sound akin to human laughter, but evidence of mirth among other mammals has been vague and anecdotal. Jaak Panksepp and Jeffrey Burgdorf of Bowling Green State University in Ohio tried to rectify the situation-by tickling rats.

Rats respond to tickling by emitting ultrasonic whistles outside the range of human hearing. These rodent chirpings have been detected before, but most researchers believe they signaled distress or aggression, or were a prelude to sex.

The researchers found that young rats chirp vigorously during rough-and-tumble play sessions with each other. They also chirp more than their older relatives when they are tickled, which Panksepp says fits with the idea that children are more ticklish than adults.

Panksepp believes the tickling experiments show that a "primal form of laughter" evolved well before primates appeared. He suggests that rats and primates, especially juveniles, use laughter to distinguish playful from threatening physical interactions.

"We'd be surprised if rats have a sense of humour, but they clearly have a sense of fun," he says. Panksepp expects many scientists to be sceptical about claims for human emotions in a lower species, but he points out that our laughter is triggered by evolutionarily ancient brain regions-it's not exactly a cerebral activity.

Robert Provine, who studies laughter at the University of Maryland, Baltimore County, believes many social mammals probably produce laughter-like sounds. But he admits it takes "an intuitive leap" to recognise the calls as laughter, because they are acoustically very different.

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