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Goats prefer happy people

Goats can differentiate between human facial expressions and prefer to interact with happy people, according to a new study led by scientists at Queen Mary University of London.

29 August 2018

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Dr Alan McElligott with goat

The study, which provides the first evidence of how goats read human emotional expressions, implies that the ability of animals to perceive human facial cues is not



limited to those with a long history of domestication as companions, such as dogs and horses.

Writing in the journal Royal Society Open Science, the team describe how 20 goats interacted with images of positive (happy) and negative (angry) human facial expressions and found that they preferred to look and interact with the happy faces.

Dr Alan McElligott who led the study at Queen Mary University of London and is now based at the University of Roehampton, said: “The study has important implications for how we interact with livestock and other species, because the abilities of animals to perceive human emotions might be widespread and not just limited to pets.”

Unfamiliar faces

The study, which was carried out at Buttercups Sanctuary for Goats in Kent, involved the researchers showing goats pairs of unfamiliar grey-scale static human faces of the same individual showing happy and angry facial expressions.

The team found that images of happy faces elicited greater interaction in the goats who looked at the images, approached them and explored them with their snouts. This was particularly the case when the happy faces were positioned on the right of the test arena suggesting that goats use the left hemisphere of their brains to process positive emotion.

First author Dr Christian Nawroth, who worked on the study at Queen Mary University of London but is now based at Leibniz Institute for Farm Animal Biology, said: “We already knew that goats are very attuned to human body language, but we did not know how they react to different human emotional expressions, such as anger and happiness. Here, we show for the first time that goats do not only distinguish between these expressions, but they also prefer to interact with happy ones.”

The research has implications for understanding how animals process human emotions.

Co-author Natalia Albuquerque, from the University of Sao Paulo, said: “The study of emotion perception has already shown very complex abilities in dogs and horses.”



However, to date, there was no evidence that animals such as goats were capable of reading human facial expressions. Our results open new paths to understanding the emotional lives of all domestic animals.”

More information:

- Research paper: ‘Goats prefer positive human emotional facial expressions’.
Christian Nawroth, Natalia Albuquerque, Carine Savalli, Marie-Sophie Single and Alan G. McElligott. [Royal Society Open Science](#).
- Find out more about studying [Zoology](#) at Queen Mary



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For media information, contact:

Rupert Marquand

Public Relations Manager

Queen Mary University of London

email: r.marquand@qmul.ac.uk

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Goats are as loving and clever as dogs, say smitten scientists



Dr Christian Nawroth with a goat during his research, which suggested that goats could communicate with humans in the same way as cats or dogs CREDIT: CHRISTIAN NAWROTH

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By **Sarah Knapton**, SCIENCE EDITOR

6 JULY 2016 • 6:00AM

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They may seem an unusual candidate for the title of man's best friend, but scientists have suggested that goats could rival dogs in forming an emotional bond with their owners.

Researchers from [Queen Mary University of London](http://www.qmul.ac.uk/) (<http://www.qmul.ac.uk/>) aim to prove that goats are much cleverer than previously thought and interact with people in a similar way to pets, having trodden a path of domestication for 10,000 years.

Their latest experiment, documented in Biological Letters, showed that [goats](https://www.telegraph.co.uk/news/2016/05/09/seven-goats-escape-from-kentucky-parade-sparking-24-hour-chase/) (<https://www.telegraph.co.uk/news/2016/05/09/seven-goats-escape-from-kentucky-parade-sparking-24-hour-chase/>) will gaze imploringly at their owners when they are struggling to complete a task, a trait common in dogs but not wolves, for example, who have never learned how to co-exist with humans.

“Working with them, they have such character in their faces. They are very curious animals”

Dr Alan McElligott

The team has also demonstrated that [goats](https://www.telegraph.co.uk/news/2016/03/15/man-squeezes-goats-from-the-stomach-of-six-foot-long-python/) (<https://www.telegraph.co.uk/news/2016/03/15/man-squeezes-goats-from-the-stomach-of-six-foot-long-python/>) can work out how to break into a sealed box using levers, a task used to gauge intelligence in apes. They can even remember the skill four years later without prompting.

“Goats gaze at humans in the same way as dogs do when asking for a treat that is out of reach,” said Dr Christian Nawroth, one of the study's authors.

“Our results provide strong evidence for complex communication directed at humans in a species that was domesticated primarily for agricultural production, and show similarities with animals bred to become pets or working animals, such as dogs and horses.”

Dr Alan McElligott at Buttercups Sanctuary for Goats in Kent CREDIT: DR ALAN MCELLIGOTT

Goats were the first livestock species to be domesticated, about 10,000 years ago. There are 100,000 goats in Britain, and a billion worldwide, but until recently they have been considered no more intelligent than sheep.

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However, co-author Dr Alan McElligott from Queen Mary's Department of Biological and Experimental Psychology said the reputation was unfair.

"You can't work with a sheep on its own," he said, "People think they are the same, but they are very different animals. Anyone who has ever worked with both animals can tell you that.

"From our earlier research, we already know that goats are smarter than their reputation suggests, but these results show how they can communicate and interact with their human handlers even though they were not domesticated as pets or working animals.

"We know that in some areas goats are as intelligent as dogs, but there has been a lot more work done on dog behaviour and we are really just scratching the surface with goats."

The stated aim of the research is to improve the animal's welfare.

"If we can show that they are more intelligent, then hopefully we can bring in better guidelines for their care," Dr McElligott said.

Goats are cleverer than people think, the researchers said CREDIT: CHRISTIAN NAWROTH

Scientists had thought that dogs and cats could connect with humans due to changes to their brains over thousands of years as companion animals.

But goats were domesticated around 10,000 years ago so have had plenty of time to interact with humans. Unlike sheep, which were domesticated later, they are perfectly happy outside a flock.

In the most recent experiment the team trained goats to remove a lid from a box to receive a reward. In the final test they made the box impossible to open and recorded the goat's reaction.

The bemused goats turned towards their owners in a pleading manner, clearly asking for help in getting to the treat. They were also seen to gaze for longer when the person conducting the experiment was looking at them, compared to when they

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The research was carried out at [Buttercups Sanctuary for Goats in Kent](http://www.buttercups.org.uk/) (<http://www.buttercups.org.uk/>).

Dogs v goats | Which makes the better pet?



Buying a goat can cost between £50 and £250 depending on sex, age and temperament.

Adopting a rescue dog is roughly the same, but a pedigree puppy can cost hundreds or even thousands of pounds.

The average lifespan of a goat is 12 years, while most dogs live between 10 and 13 years.

Goats are curious animals and can escape easily. A 6ft high chain link fence which can cost up to £5,000 is recommended. They also need a warm and dry living space. A large doghouse will do, which costs around £300.

Goats need hay as bedding as well as 10lbs of hay per day to eat which will cost around £100 a year.

Dogs usually live indoors but costs for food are estimated to be around £300-£450 per year.

Routine vet bills of around £150 a year are likely for both animals. Dogs have additional costs of flea and worming treatments, neutering and spaying, kennel costs, microchipping, grooming as well as annual vaccination and booster shots.

Overall a goat is likely to cost roughly £10,000 over its lifetime, compared with between £16,000 and £31,000 for a dog, depending on its size.

Goats can be destructive to fences, housing and gardens and can call loudly, which neighbours may find a nuisance.

Goats that are lactating (producing milk) need to be milked twice a day, every day. You should only consider getting a lactating goat if you're prepared to put in the extra work and time needed for milking.

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