

Impending doom

Do any animals, other than us, have an awareness of their own mortality?

Gerry Cannon, via Facebook

Why else would they flee from a predator?

Chris Bailey, via Facebook

They instinctively avoid threats because of learned and passed-on behaviour, but have no conception of mortality.

@gws_al, via Twitter

All animals have an innate sense of mortality. Fight or flight, they all want to live another day. Whether they are actually aware why, I can't answer.

@ariyanmalik409, via Twitter

For any living system to be aware of complex thoughts such as their own mortality, they must exhibit a level of conscious complexity that allows for awareness of such thoughts.

“The notion of the inevitability of death requires knowledge accumulated and passed down through generations”

Susana Monsó

National Distance Education University, Madrid, Spain

What does it mean to have an awareness of one's own mortality?

We could take it to mean understanding that you will inevitably die, that this is an unavoidable consequence of being alive. Understood like this, it is unlikely that non-linguistic animals can be aware of their mortality, because the notion of the inevitability of death seems to require knowledge accumulated and passed down through generations.

None of us has direct proof that everyone dies. We only know this because we have been told.



This week's new questions

First is the worst Whenever I cook a pikelet, pancake or fritter, the first batch tastes and looks worse than the rest. **Why is this?** *Fraser Webbon, Auckland, New Zealand*

Flat Earth If the world were flat, how far away would a ship need to be to “disappear” from sight? *Emily Sheepy and Haritos Kavallos, Blainville, Québec, Canada*

Without language, it is difficult to see how this idea could be reached.

There is, however, a second, less-demanding sense in which, say, a monkey might have an awareness of its own mortality. This is the notion, not that it will die, but that it can die. That is, the idea that this is something that could happen to it, but not inevitably so. The notion of potential mortality could in principle fall within the reach of non-linguistic animals, because it can be acquired solely on the basis of personal experiences.

How might our monkey reach this notion? It is implausible that it would spontaneously conclude anything about its own potential mortality; instead, an animal could only come to grasp this idea by first understanding something

about the mortality of others.

For instance, it might gather that sometimes its fellow creatures stop moving and doing the things they usually do, in a way that is different from when they fall asleep. It may come to associate this change of state with certain preceding events, such as falling from a tree or encountering a leopard, to the extent that it comes to expect that result when one of its kin falls from a tree or encounters a leopard.

With enough of these experiences, coupled with a degree of self-awareness, the monkey may start to comprehend that the same thing could happen to it, if it were involved in those events. This might not engender existential angst, because the monkey could feel safe so long

Why does the first of a batch of pancakes always turn out worse than the rest?

as it stays away from big cats and takes care when sitting on branches, but it still implies some understanding of death.

@carlmateta, via Twitter

Where I live, if you slaughter a cow, other cattle bellow at the sight and sometimes resist moving away.

@HeXiang125, via Twitter

You are asking the wrong animals this question.

Rousing stuff

Why does stretching and yawning after waking up feel so pleasant and what are the benefits?

Marie Ayres

London, UK

The stretching you do after waking isn't really stretching. It is a process involving the nervous system called pandiculation. Yawning is also pandiculation.

The process happens in three stages: contraction, release and then lengthening of the muscles to their natural resting length. It is the release of tension, the sensation of the muscles softening, that feels so good.

Pandiculation on waking resets the tension and resting length of the skeletal muscle, by activating the spindles – sensory receptors located within the skeletal muscles. Its purpose is to prime the muscles for movement.

Cats sleep a lot and can often be seen pandiculating afterwards by extending their backs and pushing their front legs forwards. This prepares their muscles for action, to run away from a dog or to pounce on prey. For humans, it helps us to wake up and walk to the kitchen to put the kettle on.

David Simpson

Yateley, Hampshire, UK

A friend and I discussed this some 40 years ago, because he contended that all humans, cats



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