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## Changing times, changing ways

Emotions in animals remain a controversial subject. Some people do not believe that animals are capable of feeling emotion generally, let alone grief, possibly because grief represents one of the most complex of emotions. It is acquired with age, rather than being innate like anger, and is not often displayed.

Many owners would privately accept that their pets do show signs of emotion, including grief, but these have been essentially anecdotal accounts, which have not been followed up. Today, though, thanks in part to the internet, there is much greater debate surrounding this topic, which has now triggered serious scientific interest.

Differing thoughts about the way in which animals perceive the world extend back to the dawn of history. These have been markedly influenced by the way in which animals have been perceived in different cultures. Unfortunately, our beliefs about emotions in animals have been clouded over the course of many centuries by theological dogma, and issues surrounding the human condition and soul. This has had the effect of blocking genuine investigation into this field.

A radical rethink of the concept of animal emotions is currently taking place today, however, inspired by the way in which science is providing some remarkable insights into animal behaviour. These

findings are causing us to view the natural world in a completely different way.

Crocodylians, for example, have emerged as devoted parents, rather than mechanistic killers. Elephants can keep in touch with each other across long distances by using infrasound, which are inaudible to our ears. The song of whales reverberates through the oceans for the same purpose, albeit increasingly drowned out by interference from ships' sonar.

### THE CONCEPT OF THE SOUL

When it comes to discussions about whether or not animals can feel grief, these have been closely bound up over centuries with the concept of animal consciousness. The Greek philosopher Aristotle (384-322 BC) was one of the first people to consider the possibility of animals having souls. What made his approach different, however, as set out in his work *De Anima* (meaning *On the Soul*), was that he sought to consider this from a scientific rather than a theological perspective, unlike many later writers.

His conclusion was different, too, because he viewed the soul as the life force, rather than an entity that survived death, as encapsulated in subsequent Christian teaching, and that of other religions, too. Aristotle therefore considered that all life forms had



*Grief is an emotion that is linked with social awareness.*



souls, although he sought to distinguish between them.

Plants, in his view, had the least sophisticated form of soul, as evidenced by the fact that they did not move. The soul of plants allowed them simply to grow and reproduce. Animals, in contrast, possessed a higher form of soul, combining a vegetative soul with a rational soul, which allowed them to feel things and move. Those of humans were at the highest level of all, though, because people are capable of being rational and possess the ability to reason.

Yet even Aristotle considered that one of the reasons why animals had a lesser soul was because,

*A young crocodile rests on his mother's back.*

# 2

## Why get emotional?

**G**rief is a complex emotion, which manifests itself in a number of ways. One of the problems of recognising grief in animals is that we probably tend to interpret it too narrowly, expecting animals to conform to our definition of grieving behaviour. Although the most obvious and instant reaction to the death of a loved one is a conspicuous outpouring of emotion, frequently, there are other, less evident responses, which can also be interpreted as manifestations of grief, and apply in the case of animals as much as with people.

Thanks to the social bonds which bind groups of animals, so a subsequent period of adjustment is needed in their case. The death of the matriarch of an elephant herd will undoubtedly affect the established structure, effectively passing responsibility of leadership to another member of the group. It may be that the emotion arising from the grieving process unites the group, reducing the risk of conflict at this stage, and thereby ensuring a positive outcome for the herd as a whole, helping to facilitate a smooth transition in leadership.

### **DIFFERENT JUDGEMENTS**

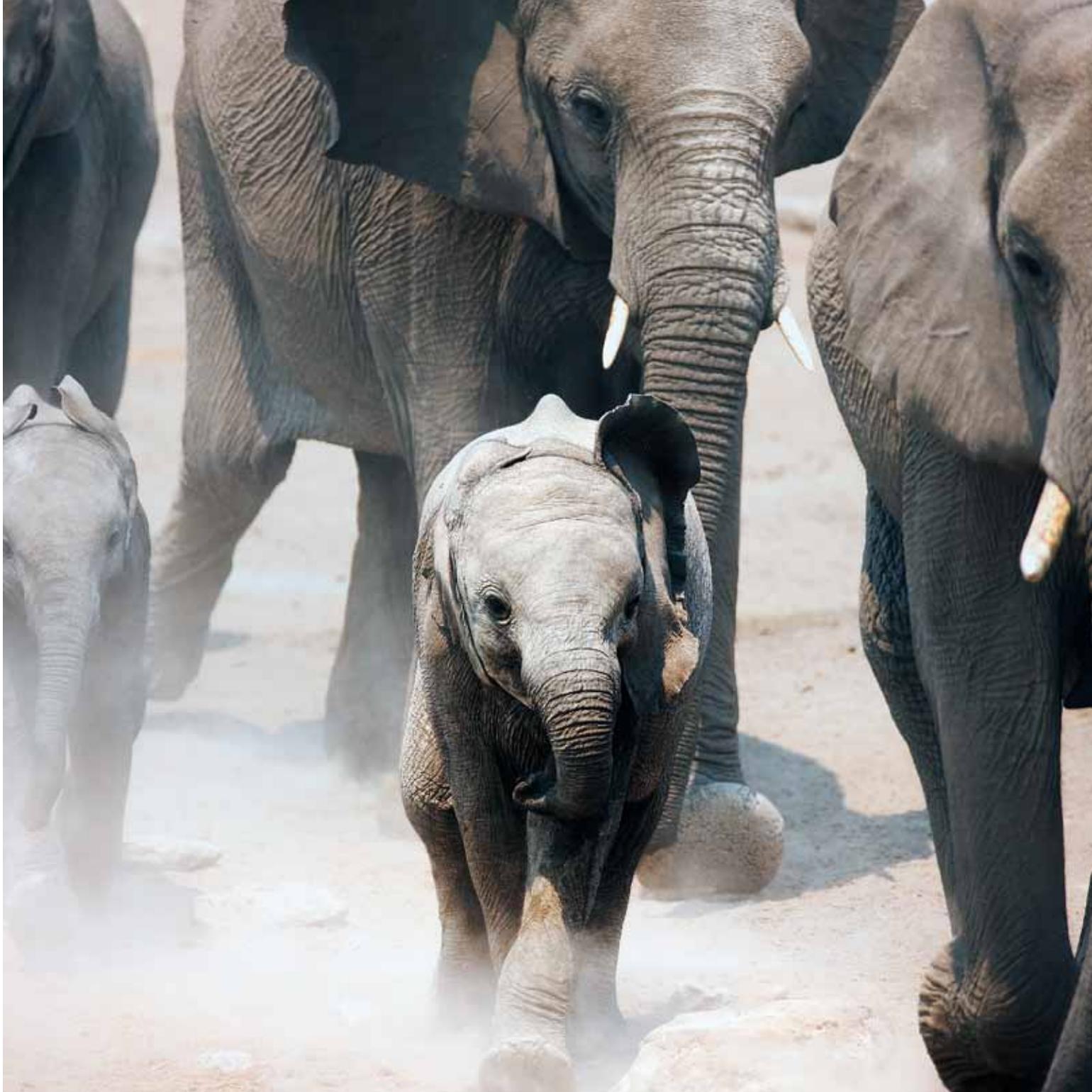
Where two dogs have lived together over the course of years, with the younger individual having been

*Grief may reinforce the social structure in an elephant herd.*

deferential to his older companion, even in this case there are likely to be recognisable behavioural changes when the older dog dies. For example, the younger dog may appear more nervous at first, without his companion to follow, as the established order has broken down.

It's quite possible, and even likely, that many animals – including those where grieving has not been formally recognised in human terms – do, in fact, display grief, based on an acceptance that this is a multi-faceted emotion, covering a range of different behaviours. We tend to view it in human terms, as far as animals are concerned, and the fact they do not display significant, recognisable outpourings of emotion suggests to us that they are generally unaffected by this emotion.

In fact, while grief has understandably come to be defined in many people's minds by its emotional component, a broader understanding would entail a more dispassionate summary of its diverse effects, both on surviving individuals, and – where appropriate – the group as a whole. Grief could simply be defined on this basis of being a change in the behaviour of one or more individuals, following the death of a companion.



## Animal Grief

years old, and joined Koko, who was taking part in a scheme to teach gorillas to have conversations in sign language.

Gorilla Foundation researchers were amazed when Michael described the death of his mother at the hands of poachers, using this new method of communication, revealing that her neck was cut, and the distress and grief that he felt. He repeated this story several times during his life, seemingly relieving the trauma. He died in April 2000.

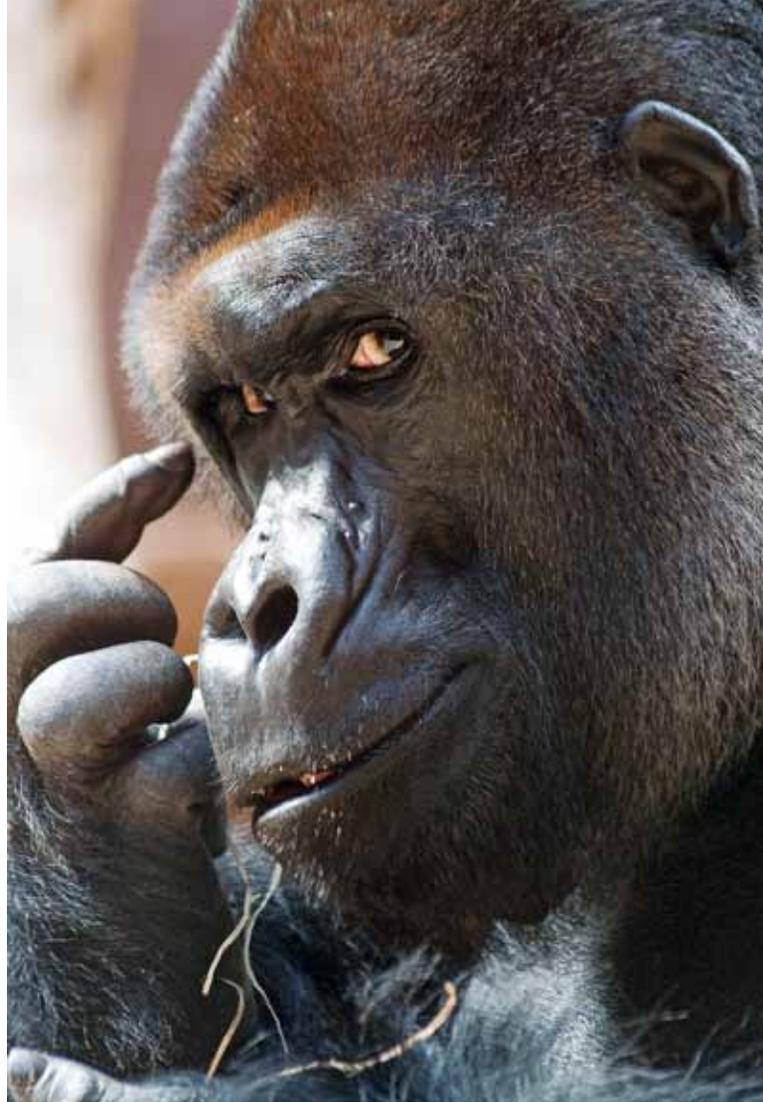
Trainer Francine Patterson has been instrumental in pioneering this communication scheme, and has had great success with Koko, who was born at San Francisco Zoo. This female gorilla can communicate by means of over 1000 signs, using American Sign Language (ASL), and is believed to comprehend the meaning of more than 2000 spoken words. Koko does not use sentences for communication when signing, but simply relies on individual nouns and adjectives.

Gorillas are unusual, because, like us, they will care for companion animals. Koko, who is now 40 years old, asked to be given a kitten in the summer of 1984. She chose a tail-less kitten, who became known as All Ball, and displayed considerable affection towards her feline companion, treating her very gently, almost like a substitute baby gorilla.

Tragedy struck before long, however, when All Ball slipped out of Koko's quarters, and was killed as a result of being hit by a car. Francine Patterson reported that when it was explained to her what had happened, Koko expressed her grief, by signing words including 'sad,' 'bad,' and 'cry.' She was also later heard mimicking the sound of a person crying.

### AVIAN CONUNDRUMS

Whereas feelings of grief in mammals can be communicated directly in some cases, and are also now explicable in terms of neuroanatomy, it is much harder to account for long-standing suggestions that birds, too, are capable of displays of grief. It is



*Gorillas can learn to communicate by means of sign language, and may use signing to express feelings, not just of grief but also of happiness.*