

...laugh

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I am buried in academic paperwork. As Americans throw money at problems, I asked my head of department for part-time secretarial help. I even offered to fund it out of my salary. But I was told that if my secretary worked on campus, I would have to pay the university 140 per cent extra as overhead. I burst out laughing. Evolution, you see, put laughter in my genes as a tool for survival.

You could show this by having two human species, one with laughter, one without. Then you just wait to find out who laughs last: the Cro-Magnon Jerry Seinfelds or the Neanderthal forebears of American Gothic. Thousand-year experiments aside, there is evidence that the ability to guffaw has given us an evolutionary advantage over other species.

Laughter is found in every culture, even among the isolated highlanders of Papua New Guinea. It is essential to the human condition. But humanity is not alone in sharing the joke. Gorillas, chimpanzees and orang-utans all respond to tickling with a laugh-like noise. Charles Darwin noted that young chimpanzees were particularly ticklish under their armpits. Jaak Panksepp, a researcher at Bowling Green State University in the US, realised that the ultrasonic chirping whistles he detected when young rats engaged in rough-and-tumble play were a form of laughter. And yes, the rats laughed when the scientists tickled them.

Laughter in primates, and possibly mammals, seems to have been favoured by evolution. But what possible advantage could a laugh confer? It is hardly conducive to self-defence: the eyes close, the mouth opens, the legs cannot run efficiently, and those involuntary noises leave predators in no doubt as to where one might be hiding. Laughter did not protect us from hungry carnivores. However, it might have protected us from ourselves. As I wrote this article, my head of department came to my paper-strewn office to suggest that I might work more efficiently if the lot went up in one big fire. I had to laugh. Sigmund Freud might have seen this as an example of humour being a healthy defence mechanism. But he differentiated humour from wit and joking, which he regarded as a means of expressing unacceptable aggressive or sexual impulses.

It seems more likely that laughter evolved for social reasons, as it almost invariably occurs socially, or with a social substitute such as the radio. It is perhaps a reliable signal for others to read, a shared message that makes the group more fit for survival. The primeval laugh is best seen in our jokeless primate cousins. Chimpanzee laughter arises almost exclusively during physical contact — chasing games, wrestling or tickling.

The neurologist V. S. Ramachandran proposed that it evolved as a "false-alarm" signal that informs other members of your group that danger is not imminent. According to this theory, laughter occurs when expectations of trouble are suddenly undermined by a non-threatening twist that changes your entire understanding of what is going on. The classic example is of cavemen running away from a bear. After a narrow escape they all burst into contagious hilarity. Similarly, in the First World War German soldiers were seen to break into laughter easily after surviving a barrage of shells.

Clearly, most jokes have little to do with near-death experiences. But perhaps the false-alarm stimulus has generalised into any safe emotional incongruity.

A lot of humour hinges on incongruities, and sharing them seems to make connections. I will never forget waiting at a Bristol bus stop in the rain less than a week after moving here from California, when the Englishman next to me observed: "Lovely weather, isn't it?" That made me laugh.

Harry Witchel is giving a lecture on laughter and the brain at the Humour, Art and the Mind Festival, Winchester Theatre Royal, on October 30.