

1 British tennis player Andy Murray knows what it's like to be unpopular. Early in his career, his aloofness on the court left many with the impression that he was petulant, spoiled, even unpatriotic. Then came Wimbledon 2012, 5 and a gruelling final against six-time champion Roger Federer. After Murray lost, he took the microphone to thank his fans. He quavered, tried to speak, and stopped to wipe away tears. In that moment, Murray won over the British public. 'It took me crying at Wimbledon,' he later acknowledged.

But tears can have the opposite effect. In 1972, they were the undoing of US Democratic presidential hopeful Edmund Muskie. He was his party's front runner at first, but his campaign fell apart after he was accused of crying while addressing the press to defend his wife's reputation. He claimed the moisture on his face was melting snowflakes – the event took place outdoors in a blizzard – but to no avail. His image as the candidate of calm and reason was shattered.

Why tears can have such a far-reaching effect is not obvious. 'If you compare tearful crying with other emotional expressions, very little is known,' says psychologist Asmir Gracanin at the University of Rijeka, Croatia. What we do know is that emotional crying is weird. Many animals produce tears to protect their eyes, but humans alone cry out of feeling. And we cry not only when we're sad, but also when we're happy, overwhelmed, and in pain. Why do we do it? What are

the benefits of blubbing? More pointedly, when should 30 you keep a stiff upper lip, and when might it help to turn on the waterworks?

The myth of catharsis

People have long puzzled over crying. Aristotle allegedly viewed tears as an excretion like urine. Darwin concluded 35 that, in addition to lubricating the eye, tears 'serve as a relief to suffering', although he didn't explain exactly how. The idea that crying is cathartic remains popular. But what does that even mean? It suggests the release of pent-up emotions – the principle behind folk wisdom encouraging people to 'let it out'. Another interpretation is that crying rids the body of harmful chemicals, such as stress hormones. This theory dates from the 1980s, when biochemist William Frey found that tears of emotion were richer in protein than non-emotional tears. But Ad Vingerhoets at Tilburg University in the Netherlands is dubious, having twice tried and failed to replicate this finding.

So why do many people say that crying makes them feel better? One possibility, says Gracanin, is that it's just that misery doesn't last forever. There is also some evidence that crying relaxes the body by activating the parasympathetic nervous system, or by pumping up levels of oxytocin, the 'cuddle hormone'. Gracanin is investigating these possibilities, but says that even if the effects are genuine, the reason we feel better may

be something other than tears. 'We still don't know,' he says.

These days, most researchers believe the function of crying is not physiological, but social. 'If you cry, you send a signal that you need help,' says Gracanin.

At first glance, liquid dripping from the eyes is a strange signal of helplessness, but neuroscientist Robert Provine at the University of Maryland thinks he knows how it evolved. Many animals clean their eyes and 65 reduce irritation by secreting tears from the lacrimal glands, above the outer corner of each eye. Provine believes that as humans evolved, tears acquired a second role. 'If someone has injured their eye or is suffering from disease, others might comfort or assist them,' he says. 'And after that, the presence of tears emerged as a cue for caregiving.' In other words, once crying started to elicit help from others, it became worth our while to shed tears over any hurt, physical or mental.

An honest signal

75 Still, why did the eyes become the channel for signalling distress, and not sweaty palms or pale lips? The eyes are perhaps the best clue we have to what others are thinking, Gracanin points out, so we are predisposed to look at them. You can also generally count on eyes to 80 be visible. 'They are quite a nice place to put a signal, as opposed to some other body part,' he says.

And what a signal: Martijn Balsters at Tilburg University has found that the presence of tears on sad faces that volunteers saw for just 50 milliseconds boosted feelings of sympathy, supportiveness, and friendship. One reason crying affects us so strongly is that, as many actors know, it's hard to fake. 'It is considered an "honest" signal, which makes it really powerful,' says Vingerhoets.

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Our reactions to crying depend on a lot of factors, not least the sex of the person crying – although not necessarily in the way stereotypes might dictate.

For example, psychologists Heather MacArthur and Stephanie Shields of Pennsylvania State University

presented subjects with scenarios in which both men and women in the roles of nurse and firefighter broke down in tears while trying to help an injured person. The participants were then asked to rate the masculinity of the person who cried and the acceptability of crying. The firefighters were generally considered more masculine, whatever their sex.

Given the popular association between femininity and emotional display, you might think that crying by

those in the more stereotypically feminine role of nurse would be more acceptable. In fact, the researchers found the opposite. 'The more masculine people perceived the crier to be, the more they thought their tears were appropriate to the situation,' says MacArthur. 'It didn't matter whether that firefighter was female or male.'

What's more, crying in a man isn't just acceptable, sometimes it can be downright desirable. In another study, Shields and colleagues found that participants rated men who showed intense yet controlled emotion in a sad situation as more competent than those who
showed no emotion at all. The finding doesn't surprise Thomas Dixon, director of the Centre for the History of the Emotions at Queen Mary University of London, and author of Weeping Britannia. This take on manliness has appeared time and again throughout history, he says.
'People have argued that crying shows that you are not only strong and rational, but also feeling, and that that's the ultimate kind of masculinity.'

Although crying is still full of mysteries, its benefits are becoming clearer. But tears must be used wisely.

125 'How positively tears are viewed depends on what you're crying about – it has to be perceived as something important, and not your fault,' says Shields.

How you cry is also crucial: welling up usually makes a better impression than open weeping. Ironically, 130 the powerful are more often admired for their tears than the weak. 'The individual who would be most sympathetically seen would be somebody who has earned the right to cry via status,' says Shields. That might help explain why Murray has gone from being 135 considered spoiled and petulant to a two-time winner of the BBC Sports Personality of the Year award. 'Crying changes everything,' says Provine. <<

