

New Scientist Live: Book tickets to our festival of ideas and discovery – 22-25 September in London

FEATURE 30 December 2015

Self-mastery can be yours with three pillars of emotional wisdom

If you think you're an emotional dunce, don't despair. Anyone can improve their emotional life by honing three key skills



By Linda Geddes

RILEY is moodily picking at her dinner. Noticing that something is amiss, her dad asks how school was. Inside Riley's brain, a small green girl called Disgust flicks a switch, and Riley rolls her eyes: "School was great, all right?" she replies sarcastically. Sitting at the control panel in Dad's mind, a skinny man called Fear reports the eye-roll to a character named Anger, who seems to be in charge. "Make a show of force," he orders. "Riley, I do not like this new attitude," Dad responds. The situation escalates until Riley screams: "Just shut up!" A big red button inside Dad's head is pressed: "That's it. Go to your room!"

This brain's-eye view of emotions in Pixar's recent movie, *Inside Out*, is entertaining, but it reinforces the questionable idea that our emotions control us – that they are powerful, primal forces we struggle to understand both in ourselves and in others. Popular though this picture may

be, it is one that psychologists would like to dispel. Other animals may be slaves to emotion, but human emotional life is more complex and cerebral, they argue. What's more, mastery of your emotions is important not just for psychological well-being, but also for success in many areas of life.

The concept of "emotional intelligence" surfaced two decades ago and was an instant hit. It tantalised us with the idea that we each have an EQ to our IQ, and promised to let us measure how emotionally clued-up individuals are. But it has its problems, not least in suggesting that people with a low EQ are forever saddled with it. EQ tests also often fail to do what they say on the tin: allow employers to find the most emotionally savvy candidate for the job. As a result, psychologists are falling out of love with emotional intelligence. Instead, they have identified three skills that can help us all become more emotionally adept, and reap the benefits.

Trace emotions back to their origins, and the notion that we are in thrall to them doesn't seem so misplaced. Emotions evolved to help animals react quickly in life-or-death situations. The fight-or-flight response is a classic example. Before you are conscious of feeling fearful, your body and mind are already primed to act – your heart is racing, your vision focused, and you experience a hot rush of blood to the head and perhaps an urge to lash out. Emotions generate such physiological changes in all animals, but for us they are more than just subconscious calls to action. "Human emotions are enormously tilted towards social situations," says Mark Pagel, an evolutionary biologist at the University of Reading, UK. "We have jealousy, sympathy, a sense of injustice, and guilt. It's these social emotions which really mark us out as a species." They are also what make our emotional lives so complicated.

Some people are clearly better at coping with this complexity than others. This might help explain why the idea of emotional intelligence was so eagerly received in 1995, following the publication of psychologist Daniel Goleman's book *Emotional Intelligence: Why it can matter more than IQ*. An international bestseller, it launched an industry peddling tests to select emotionally intelligent candidates for management positions and careers such as medicine. But for all the hype and the money spent, there has been a sense of disappointment – not just among employers. "People ask, 'what the hell was it good for?'" says Klaus Scherer, director of the Swiss Center for Affective Sciences in Geneva.

One problem with the tests is that they often ask participants to rate their own abilities – for example, to keep calm in difficult situations. Assuming respondents do not lie, they may still lack the self-awareness to give accurate answers. Another concern is that rather than measuring how well we use our emotions, the tests really measure personality and general intelligence. It has become clear that if you take these two factors into account, emotional intelligence scores say almost nothing about how competent someone is likely to be in the workplace.

Emotionally fluent

Scherer notes that the concept of emotional intelligence caught on before it had been properly researched. We now know far more about human emotions, in particular, that although some people are naturally more emotionally adept than others, all of us can learn to master our emotions more effectively. The notion of emotional intelligence is confused, in part because the very term EQ suggests an innate and unalterable measure – akin to IQ – even as its proponents promise that employees, students, indeed anyone, can learn to boost their score. Many psychologists now prefer the term "emotional competence", because it signifies an ability that

can be honed. Many also think of this ability as a sort of language – one that all humans share (see “One language, many dialects”). This, in turn, suggests how we can become more emotionally fluent. Just as learning a language entails recognising words, understanding how to use them, and controlling a conversation, so mastering the language of emotions requires three key skills – perception, understanding and regulation of emotions.

Perception is the bedrock on which the two other skills rest. Perceiving emotions is not as straightforward as it might sound. Traditional tests of emotional intelligence probe this skill using pictures of faces. “The tests are too easy,” says Katja Schlegel at Northeastern University in Boston, Massachusetts. For a start, expressions of emotion extend beyond the face to gestures and movements, plus tone of voice and other sounds. Aural and visual cues can interact; for example, one study found that the way people interpret laughter and crying sounds is altered by the facial expressions accompanying them. “The same laugh is perceived as sounding significantly happier when paired with a smiling face than when paired with a sad face,” says César Lima at University College London.

A static picture isn’t even a good representation of the way our faces express emotion. “The human face is equipped with a large number of independent muscles, each of which can be combined and activated at different levels of intensity over time,” says Rachael Jack at the University of Glasgow, UK. Her studies using computer-generated faces that randomly combine facial expressions, such as lip curls and raised eyebrows, suggest that each emotion has an associated sequence of facial movements, which she calls “action units”, unfolding a bit like the letters of a word. Action units strung together in specific patterns create “sentences” that communicate a more complex social message.

Schlegel is working with colleagues at the University of Geneva, Switzerland, to develop a better way of assessing how we judge emotional cues in everyday life. Named the Geneva Emotion Recognition Test (GERT), it involves a series of short videos of actors expressing an emotion by uttering meaningless syllables. People’s scores can range from 0 to 1, and preliminary research suggests that they are meaningful. When Schlegel invited pairs of strangers to negotiate a work contract, those with higher scores both negotiated more successfully and were perceived as being nicer and more cooperative than people with lower scores. “This is why I think emotion recognition is such an important skill,” she says. “It is difficult to convince a person of your ideas if you’re not paying attention to their needs and interests.”

So, how can you improve your emotion recognition skills? Schlegel teaches people to look for the appropriate cues in the face, voice and body, then gives them video clips to practise on, and get feedback. In one study she found that undergraduates trained in this way achieved an average GERT score of 0.75, compared with 0.6 for controls.

Lima’s group, meanwhile, has been looking at whether musical training can help. They found that adult musicians are better than non-musicians at judging the emotion in someone’s tone of voice. Brain imaging studies suggest that this reflects more than simply a general sensitivity to basic aspects of sound, says Lima. “Music training can modulate brain responses known to be more specifically associated with emotions and with our ability to interpret others’ minds.”



Recognising emotions is not enough, though. You also have to understand how they are used – and that’s the second skill. “Not everyone smiles when they’re happy, or scowls when they’re angry,” says Lisa Feldman Barrett, also at Northeastern University. Indeed, she has found tremendous variability in brain activity, both between people and in the same individual, in response to different types of threat. This suggests that there is no “essence” of fear or anger. “Somebody who is highly emotionally competent has a very broad vocabulary of emotion concepts that are highly flexible,” she says. “They know how to impose meaning on smiles and scowls, frowns and vocal cues.” They can take emotional signals – both from the outside world or their own bodies – and make sense of them.

The ability to understand emotions in this way is not innate. “None of us are born knowing the difference between feeling overwhelmed and worried, elated and ecstatic. It’s a language that has to be taught,” says Marc Brackett, director of the Yale Center for Emotional Intelligence. In an attempt to do that, a decade ago he helped create a programme called RULER, now used in some 10,000 US schools. It teaches children and young adults to interpret physiological changes in their bodies linked to emotions, label them, and learn strategies to regulate their emotions. “It’s remarkable work that has a tremendous impact on kids’ competence,” says Barrett. “When you can take a physical change in your body and understand it as an emotion, you learn to make meaning out of that change.” Evidence also suggests that it improves the relationship between teachers and students.

Other researchers are investigating whether having a broad and accurate vocabulary for your own emotions can make you more aware of other people’s emotions. “It’s still an open question,” says Agneta Fischer at the University of Amsterdam in the Netherlands, who is leading one such study.



Once you can recognise and make sense of emotional signals, then you need the final skill – the ability to regulate your feelings. “Emotion regulation is important, both to ensure that you properly analyse and appraise a situation, and also that you conform to social standards and don’t allow yourself to show certain emotions at certain times,” says Scherer. Again, this isn’t something we are born with, and as we develop, some of us learn ineffective strategies for doing it, such as avoiding emotionally charged situations or trying to shut down our emotions completely. Research shows that people who address emotional situations directly rather than avoiding them have higher levels of well-being and are better able to cope with stress.

There are ways to improve your regulation skills. One approach psychologists favour is “reappraisal” – trying to put yourself in someone else’s shoes so as to be more objective, and change your emotional response accordingly. When a team led by Ute Hülshager at Maastricht University in the Netherlands taught this strategy to hairdressers, waiters and taxi drivers, they found that it resulted in more tips. “Reappraisal helps you to display authentic positive emotions, and that is rewarded by customers,” she says.

But rethinking your emotions from scratch requires a lot of effort. Another promising approach is mindfulness – observing the coming and going of your emotions without action or judgement. In a separate study, Hülshager randomly picked members of a group of 64 employees to receive mindfulness training, and monitored them all over 10 days. Those who got the training reported more job satisfaction and less emotional exhaustion. “The idea is that when you just see emotions as they are, as thoughts and sensations, you gain a sense of perspective and the ‘hot’ aspect of the emotion dissolves,” she says.

Everyone knows that mastering a language takes time and practice. Some people are naturals. Others struggle to communicate effectively. But when it comes to the language of emotions,

making the effort to improve is surely worth it, because the proponents of emotional intelligence were right about one thing – being emotionally fluent really does bring benefits.

(Images: Mohamad Itani/Millennium Images, UK, Rita Scaglia/Picturetank, Randi Sidman-Moore/Masterfile/Corbis)

One language, many dialects

Charles Darwin coined the term “the language of the emotions”. But do all people speak the same language? To get at an answer, David Matsumoto at San Francisco State University studied thousands of photos taken at the 2004 Olympic and Paralympic games in Athens, Greece, comparing the facial expressions of athletes who were born blind with those of their sighted counterparts. “You can rule out any possibility that they visually learned to put these expressions on their faces,” he says. “We found that there are seven categories of emotion that are universally produced on the face.” His list – anger, contempt, disgust, fear, happiness, sadness and surprise – closely matches the universal emotions identified by psychologist Paul Ekman, who pioneered the field in the 1960s.

But although we all express pure and unfettered emotion in the same way, everyday variations arise, Matsumoto suspects, because we regulate our emotions to conform to cultural norms, with knock-on effects on the way we interpret emotion in others. One study, for example, found that American and European students frequently reported feeling pride, anger or irritation, whereas Japanese students more often experience feelings of closeness, shame, guilt or debt to another. Another study found that white Europeans could easily distinguish between facial expressions of surprise, fear, disgust and anger, whereas east Asians often confused disgust and anger, and fear and surprise. Eye-tracking revealed that the white Europeans looked at all areas of the face equally, while east Asians focused on the eyes.

What do such studies tell us? According to Batja Mesquita at the Catholic University of Leuven (KUL) in Belgium, if you live in a culture where an emotion like anger is viewed as disturbing and selfish, you will not be rewarded for expressing it, and over time you may even cease to feel it as frequently or intensely. She has found that immigrants gradually adapt their emotions to the norms of their new home. It’s as if we all speak the same language but adopt the local dialect.

This article appeared in print under the headline “Control yourself”

Linda Geddes is a writer based in Bristol, UK

Magazine issue 3054, published 2 January 2016