
FEATURE 19 April 2017, updated 19 April 2017

Your true self: How your personality changes throughout life

You are not the person you were as a child, or even last year. The discovery that our characters change is unnerving, but embrace it and it can be empowering



Daniel Stolle

By **Emma Young**

AS A child, Wendy Johnson was extremely shy. “One of my report cards said: ‘Wendy is so shy, it’s painful to watch!’” She’s not like that now. “I am definitely a person who learned to overcome overt shyness,” says Johnson, a psychologist at the University of Edinburgh, UK. She says shyness is an indicator of a low level of extroversion, a key measure of personality, which she studies. So does this mean Johnson has changed her personality? Undoubtedly, she says.

That answer might surprise you. Most of us consider our personality to be an integral

and unchanging part of who we are – perhaps the essence of that thing we call the self. In 1887, psychologist William James went so far as to argue that it becomes “set like plaster” by the age of 30. His idea stuck. Psychologists have long debated how to measure personality, settling eventually on the “big five” traits (see “What are you like?”). But at least they were able to agree on a definition: personality refers to an individual’s thought patterns and behaviours, which tend to persist over time. Now mounting evidence is undermining that notion. Personality is far more mutable than we thought. That may be a little unsettling. But it’s also good news for the almost 90 per cent of us who wish our personalities were at least a little different.

There’s no doubt that personality is partly genetic. What’s less certain is how much is down to our genes and how much to nurture. Newborn babies don’t have personalities as such, but do have characteristic ways of behaving and reacting, something psychologists call “temperament”. This includes persistence in the face of setbacks, and “reactivity”. Very reactive babies are shy and avoid novel situations. Temperament is often viewed as the biological basis of personality, but it is far from innate. Genes and environment interact to influence it even before birth. For example, there’s evidence that mothers who are stressed during pregnancy are more likely to have an anxious child.



Read more: Your true self

Who are you? An entity continuous in time, an individual with a personality, a unique bundle of memories? Only now are we truly getting to grips with what our sense of self is and isn't, and how it can change – insights that could help us live better with ourselves and with others

Experiences in childhood also shape our personalities. Research shows that young children become more extroverted and work harder when surrounded by other kids with these traits. Parental behaviour has an impact too. Jerome Kagan at Harvard University, who pioneered research on reactivity, found that if parents encourage reactive infants to be sociable and bold, they grow up to be less shy and fearful. This might help explain why temperament doesn't always predict later ratings on big five traits. Smiley babies don't necessarily go on to be extrovert, for example. And Kagan found that only 25 per cent of highly reactive infants were extremely shy, anxious, timid or cautious by the age of 15.

By adulthood, genes seem to account for about 40 per cent of the variation in each of the big five traits – at the level of the general population, rather than for any individual. But it would be wrong to assume that genes and the environment are acting independently to influence personality. “They never are,” says Johnson. Another way to consider the genetic influence is to ask how many genes have been identified that are clearly linked with any one of the five traits. “Zero,” says Johnson. “Every time we find something that looks like it’s associated with one, well, it’s associated with a whole pile

of other traits, too.”

In other words, genes and environment interact in complex ways to shape our personality. But where’s the evidence that this process stops when we reach 30? Well, there isn’t any. In fact, once psychologists got over the intuitive appeal of the idea, they began finding plenty to contradict it.

The first direct challenge came from studies following adults over long periods. Research published in 2003 revealed that as we get older, we tend to become significantly more agreeable, conscientious and emotionally stable. An intriguing link with physical changes in our ageing brains has emerged recently. Roberta Riccelli at Magna Graecia University in Catanzaro, Italy, and her colleagues found an association between greater neuroticism and a thicker, less wrinkly cortex. With age, the cortex becomes thinner and folds more, the team notes. It remains to be seen whether there’s a causal connection.

This year, Petar Milojev at Massey University in New Zealand and his colleagues published a study refining the picture of how personality morphs with age. They looked at data on nearly 4000 people aged 20 to 80 and found that personality is least stable in young adulthood, and also after about age 60. This makes sense if changes in the environment can influence personality, says Milojev, because young and older adulthood are periods when people tend to experience maximum change.

What’s becoming clear is that major life events can have long-lasting impacts on personality at any age. Embarking on romantic relationships can reduce levels of neuroticism. Going through a divorce makes women more extroverted and more open to experience, while men become less conscientious, according to one US study. Although a German study has found that both genders become less extroverted.

The effects of becoming unemployed can be more dramatic. We already know that it has a major effect on well-being. “It’s probably the life event that has the biggest impact,” says Christopher Boyce at the University of Stirling, UK. And he has found that the impact of unemployment on personality is twice as big, with it tending to make people less conscientiousness and less agreeable. Working can shape your personality too. Nathan Hudson, now at Michigan State University in East Lansing, found that people who have invested heavily in their jobs tend to show an increase in conscientiousness. Even moving to a new town or country might influence your personality – people living in New York tend to be highly neurotic, for example, while Londoners score low on agreeableness.

Other factors can lead to more transient shifts in personality. For example, Sebastian Schindler at the University of Bielefeld in Germany has found that inducing a sad mood in volunteers in the lab caused a 10 per cent increase in their neuroticism ratings, and a decline in extroversion of between 2 and 4 per cent. “These figures seem low, but remember we are talking about personality, which is defined as ‘stable and long-lasting’,” he says.

It’s not entirely surprising that your personality – your general patterns of thought and behaviour – is influenced by your emotions. However, the extent to which environmental factors shape our dispositions over a lifetime is remarkable. In work published last year, Johnson and her colleagues compared results from personality tests taken by people when they were aged 14 and again at 77. “Though measured crudely, we

couldn't find any evidence for stability in individual personality characteristics," she says.

That's not to say we are at the mercy of capricious environmental influences. There is also growing evidence that we can actively shape our own personality – and would benefit from doing so. In particular, there's plenty of research linking low levels of neuroticism and high levels of extroversion with better health and subjective well-being. What's more, Hudson has found that 87 per cent of people would like to see at least a little movement in their ratings on each of the big five traits. "The data are compatible with the intuitive notion that most people would ideally like to be a little more energetic and at ease socially, kinder and more loving towards others, more responsible and productive, less stressed and irritable, or more creative and thoughtful," he says.

One route to change is therapy. In January, Brent Roberts at the University of Illinois and his colleagues reported that four to eight weeks of psychotherapy (the specific type didn't seem to matter) can bring about changes in personality, most notably an increase in extroversion and a substantial decrease in neuroticism.

Then there are psychedelic substances. Research at Johns Hopkins University School of Medicine has shown that consuming magic mushrooms can have a big effect on personality. Even a single session increased the openness scores of volunteers. One year on, their heightened openness remained.

But magic mushrooms are illegal in many countries and psychotherapy is not for everyone. So what to do? Is there a DIY route to a different you? To explore this question, Hudson and Chris Fraley at the University of Illinois at Urbana-Champaign asked a group of student volunteers to write down the traits they would like to alter and then helped them identify specific behavioural changes that would help them achieve their goals. Broad goals are not very effective, Hudson notes.

Four months later, the volunteers reported substantial changes including increases in extroversion and conscientiousness and lower neuroticism. What's more, there was a virtuous circle in which alterations in behaviour led to changes in traits, which in turn led to alterations in behaviour.

Psychologists continue to debate the extent to which personality is plastic in adulthood, but there is now no doubt that it can and does change. And that's good news for all of us. Knowing that you are not "set" by 30 is empowering. "You can think: I'm not stuck with who I am. I can change," says Boyce.

What are you like?

Personality is an easy concept to grasp, but a difficult one to measure. Psychologists have tried various systems over the years but most now use the “big five” model. This encapsulates personality in five independent traits: openness to experience, conscientiousness, extroversion, agreeableness and neuroticism (or emotional stability). These are generally assessed separately through an inventory asking you to indicate the extent to which you agree with statements such as “I am the life of the party” (to assess extroversion) and “I worry about things” (to assess neuroticism).

Despite being widely accepted, there are still questions over the big five model. For a start, people’s scores aren’t that good an indicator of how they behave when faced with real pressures and the consequences of their actions. Behaviour varies considerably depending on the circumstances.

More fundamentally, we are coming to realise that five traits aren’t enough. “They leave many things out – particularly, anything that isn’t socially desirable: aggression, alienation, cruelty, manipulativeness,” says psychologist Wendy Johnson at the University of Edinburgh, UK. “Even assertiveness isn’t covered well.” Agreeableness, for example, measures how we react to others, but it doesn’t address the behaviours we initiate, such as stealing from the workplace or taking advantage of someone else’s cooperativeness. This has led to calls for a sixth trait, honesty-humility, to measure a person’s Machiavellian tendencies.

Elaine Aron, a psychologist based in Marin County, California, believes the big five method ignores another important aspect of personality. She has pioneered the concept of the “sensitive” personality trait to describe people who are more physiologically reactive to their environments. They are not necessarily neurotic, but are more likely to pause and reflect before acting, rather than rushing in.

This article appeared in print under the headline “Mercurial you”

Emma Young is a writer based in Sheffield, UK

Magazine issue 3122, published 22 April 2017