

The science of happiness

Can you measure happiness? Is it innate, or can we learn it? And why do we look for it in all the wrong places? Science may just have the answers, says Lucy Hone

TAKE A MOMENT TO PONDER your happiness. Picture yourself doing something that makes you happy. Are you lying on a beach, book in hand, basking in the sun? Linger over a delicious lunch with friends? Enjoying a moment's peace on the couch, coffee and slice close to hand? Or cruising your favourite shops with unlimited credit?

Now think about what it would take to make you significantly happier. A new partner, a new car, handbag or sewing machine even; a bach to call your own, an end to chronic back pain, shedding 10kg or obliterating those hated crow's feet with a little cosmetic surgery? Whether we do it consciously or not, we universally seek happiness – only we do so in a bewildering variety of forms.

Some of these things will make you happier, some won't. Can you tell them apart? Thanks to a new, rapidly expanding group of scientists known as Positive Psychologists, we are starting to work out the difference.

A decade of scientific research has led to a growing understanding of what does make us happy and, crucially, what doesn't. Researchers have studied the benefits of leading happy lives, whether some people are naturally more upbeat than others, and to what extent we have control over our emotional wellbeing. No longer does psychology solely deal with depression; it now also looks at how to elevate people to help them feel great and get the most out of life – hence the moniker Positive Psychology.

Happiness may seem a lightweight topic unworthy of scientific investigation, but the evidence supporting its manifold benefits is persuading both the academic and non-academic world to take note.

The data is incontrovertible: Compared with their less content peers, happy people are more sociable and energetic, more charitable and cooperative, more likely to get married and stay married, to have richer networks of friends and social support. They're also more flexible and creative in their thinking and are more productive at work. Crucially, considering the depression epidemic facing the

developed world, happy people show greater resilience in the face of hardship. Their immune systems are stronger: They're healthier and live longer.

One of the most famous studies backing this up involves the School Sisters of Notre Dame in Milwaukee. Researchers from the University of Kentucky followed the fortunes of the 678 nuns. Their sheltered existence and uniform lifestyle – immune from the multifarious outside influences that might sway the data – provided a unique study cohort.

More than 30 years of empirical investigations threw up the astonishing discovery that nuns who expressed positive emotion and happiness in their early lives went on to outlive their more miserable sisters. The study – published in 2001 – found that 90% of the most cheerful quarter was alive at age 85 versus only 34% of the least cheerful quarter. Over half of the most cheerful quarter were still alive at 94, as opposed to only 11% of the least cheerful quarter. The happiest nuns lived, on average, seven years longer than the unhappy nuns.

Another United States study used the yearbook photos of college students from the 1960s. It compared the smiles from 138 senior-year students' photos, grouping them into two categories: What psychologists call genuine 'Duchenne' smiles where the corners of the mouth turn up and crow's feet wrinkles appear at the corners of the eyes, versus the inauthentic 'Pan-American' smile. The University of California researchers ascertained that the women displaying genuine smiles were more likely to be married, to stay married and to experience greater personal wellbeing over the next 30 years than those who faked it – even allowing for the 'prettiness' factor.

We used to think it was impossible to study and measure happiness, but academic opinion is changing. Measuring happiness might be subjective, but that's not to say it doesn't have merit, says Alison Ogier-Price, lecturer in the Science of Happiness at the University of Canterbury. Her master's degree examining whether people can →



learn to be happier employed nine different happiness evaluation scales, but she remains convinced that the simplest measurement is often the best.

"There are all sorts of tests out there, some involving hundreds of questions, but asking people 'how happy are you on a scale of one to 10' is as easy as pie and just as useful," says Alison. "Happiness is completely subjective, it's how we feel. So if I think I'm a 7/10 and my best friend thinks I'm only 2/10, who's right? I am; they're my feelings. There are many ways to evaluate happiness, but ultimately you don't need to ask 200 questions when one will do."

One of the most ambitious wellbeing studies was launched in New Zealand last March – The International Wellbeing Study (www.wellbeingstudy.com). The research – an international collaboration using a 30-minute online survey and involving 39 researchers and institutions across New Zealand, America, Norway, Sweden, India, Mexico, Portugal, the Philippines, Germany and the UK – asks participants to rate their personal happiness, their happiness relative to their peers, and evaluate positive emotions such as optimism, resilience and gratitude.

Aaron Jarden, primary investigator, lecturer in psychology at the Open Polytechnic and president of the New Zealand Association of Positive Psychology, says the International Wellbeing Study has corroborated much of what is now known by wellbeing scientists, but has also revealed some unexpected results.

"Data from the first intake showed the two biggest predictors of life satisfaction to be how closely individuals' lives aligned with their values and the extent to which they were satisfied with their use of time. If you're using your

Six ways to boost your happiness

SAVOUR: Take the time to draw up a list of the things that bring happiness into your life and prioritise your own wellbeing by deliberately planning to immerse yourself in one or more of these activities every week.

GRATITUDE: Think of three things that have happened to you this week that you are grateful for. Consider the part you played in these good things happening to you.

MEANING: Identify those things which are important to you so that you are aware what it is that you truly value. Explore ways to involve yourself in associated activities to contribute in a larger way to your community.

SOCIALISE: Look after and devote time to your friends and loved ones. Nurture and enjoy these relationships.

GET PHYSICAL: Find somewhere beautiful to spend time outdoors and make a conscious effort to soak up the physical splendour of your surroundings, savouring the moment.

SET GOALS AND AMBITIONS: Make sure they're realistic and remember that enjoying your progress towards the goal is more important than the goal itself.

time effectively and are happy with how you're using it, that usually equates to feeling satisfied with life," says Aaron.

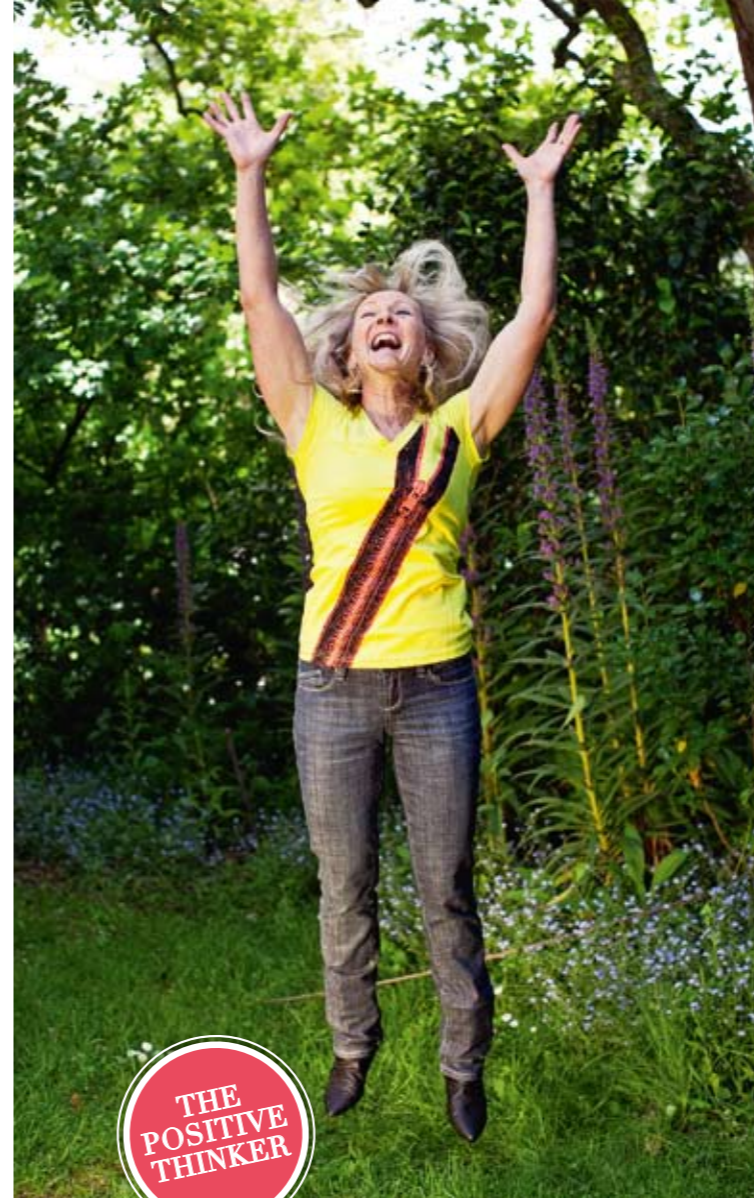
But isn't this all rather obvious? Isn't knowing how to find happiness something that should come naturally? No, say the Positive Psychologists. As long as we continue to think happiness lies in more money, more chocolate or more high heels, we've still got a lot to learn. And only by empirically testing the elements of wellbeing can modern psychologists make claims with any authority. This is science, not self-help, after all.

The problem, says research scientist and University of California professor of psychology Sonja Lyubomirsky, is that just following our intuition leads us to look for happiness in all the wrong places. "What we believe makes a huge difference in our lives actually makes only a small difference, while we overlook the true sources of personal happiness and wellbeing." Which are?

"Expressing gratitude, focusing on what you have as opposed to what you want, not comparing yourself to others, not ruminating on things, focusing on relationships because they have such a high impact on our wellbeing, and having goals; you won't find a happy person who →

Surprise facts from happiness scientists

- Wealth is only weakly related to happiness both within and across nations, particularly when income is above the poverty level (Diener & Diener, 1996).
- Activities that make people happy in small doses – such as shopping, good food and making money – don't lead to fulfilment in the long term, indicating that these have quickly diminishing returns (Myers, 2000; Ryan & Deci, 2000).
- People who regularly express their gratitude have better physical health, optimism, progress toward goals, wellbeing, and help others more (Emmons & Crumpler, 2000).
- People who witness others performing good deeds experience an emotion called 'elevation' and this motivates them to do their own good deeds (Haidt, 2000).
- People who are optimistic or happy fare better at work, school and sports; they are less depressed, have fewer health problems, and have better relationships. Optimism can be also measured and it can be learned (Seligman, 1991; Lyubomirsky, King & Diener, 2005).
- Physicians experiencing positive emotion tend to make more accurate diagnoses (Isen, 1993).
- People typically overestimate how long they will be sad following a bad experience, such as the break-up of a relationship, yet fail to learn from repeated experience that their predictions are wrong (Gilbert, Pinel, Wilson, Blumberg & Wheatley, 1998; Wilson, Meyers, & Gilbert, 2001).



'I grew to realise that material possessions do not define me'

ASK 55-YEAR-OLD Cathy Cremen if she's a positive person and she'll say 'yes'. But it wasn't always the case.

Brought up in Canada in a house full of alcohol problems, hatred and violence, she quit school at 15 to hitchhike to the east coast.

"Growing up in that environment determined my attitude for many years. I became a people-pleaser, a perfectionist and didn't like myself. I was told I was worthless so I accepted that picture, became a drug addict, dropped out of school and hitched with a fellow addict. We slept in graveyards, stole food, bummed rides and money."

Then one day, when a chance encounter took her to a university campus, a voice in her head told her it was time to go back to school. "I went back home, back to high school, slowly weaned myself off drugs, passed high school with honours and went on to graduate as a vet."

Despite still suffering from depression, her strong will

and a determination to prove her doubters wrong saw her through veterinary studies.

"Towards the end of uni, while I was still smoking heavily, my brother took me for a run; 500 yards later I was coughing up blood. I'd never done any physical activity and abused my body since I started smoking at 11. The blood scared me so much I started lifting weights and running each night." She's exercised almost every day in the 30 years since.

Two years after graduation, now working as a vet, she hit another wall. "I was working more than 60-70 hours a week, smoking and drinking too much. Being busy kept me distracted but I was still depressed."

One evening in the kennel room, writing up her charts, she suddenly felt overwhelmingly dissatisfied. "I'd thought that graduating in a top profession would bring me great happiness – it did for those around me – but not me. I didn't feel any different about myself. So I left in search of happiness. I had no idea what it looked like or if it even existed. What I did know is that I needed it and nothing else was important to me."

She travelled to Australia and met her husband Charlie there. She studied yoga, aikido and reiki and moved to New Zealand. Ultimately, though, she knew she'd never be happy until she returned to Canada to face her past.

"I was beginning to understand I was responsible for my own life. I painfully faced the reality of my Canadian upbringing, which the drugs and depression had protected me from. I adopted a negative attitude early in life. I always thought I wasn't good enough and that nothing about my life would change. So who I am today has come at a price. It meant giving up these self-defeating attitudes and discovering the truth about who I am. It wasn't about becoming a better person but becoming a new person."

That was 30 years ago. Over the years Cathy has forgiven her past.

"We are all human beings – even my parents – trying to work out this thing called life and we all make mistakes.

"I grew to realise material possessions do not define me. What I do, like becoming a vet, does not define me or bring lasting fulfilment. Happiness, positivity and fulfilment all start from within me," she says, while adding that she still enjoys a good cup of coffee, a new pair of shoes and her much-loved bike.

Looking at Cathy now – owner of a reiki clinic in Christchurch, avid cyclist, marathon runner, happily married and proud mum – it's hard to place her in that former life. She says she has peace "most days". And when she doesn't?

"I like myself enough to not allow those thoughts and feelings to take over. I use positive statements, read inspirational quotes, talk things over with someone, find someone with a greater need than mine, go for a bike ride and lift weights, tell my husband I love him for no particular reason, brush my cat and think of all the amazing things I've yet to achieve."

THE JOY BRINGER

‘It’s amazing to laugh for no reason at all’

AS FOUNDER OF the South Island’s first ‘laughter club’, 39-year-old Hannah Airey is accustomed to expressing her happiness openly.

“It’s amazing to laugh for no reason at all with complete strangers. I have laughed with people who have cancer, boys confined to wheelchairs, war veterans and sufferers of mental illnesses,” says Hannah, whose business, The Giggles, delivers Laughter Yoga workshops to the corporate, mental health and community environment.

Laughter clubs began in 1995, when the five members of founder Dr Madan Kataria’s first club met in Mumbai; there are now more than 6000 clubs in 60 countries.

“Laughter yoga is the fastest growing health and fitness system in the world,” says Hannah.

She believes the secret to finding true joy comes from within “and radiates outwards into happiness”.

“I’m naturally upbeat and always approach things in a positive way. If they don’t turn out as I’d have liked, I don’t dwell on it; I move on,” she says. She acknowledges, nonetheless, that there have been times of despair in her life, particularly during the separation from her children’s dad and partner of nine years.

“Three years on I can see that I had to go through this process to find who I really am and to be true to myself. I learned the power of forgiveness, which doesn’t mean you have to condone someone’s behaviour but it’s something that needs to happen to move forward and be happy.”

Hannah found that surrounding herself with like-minded people and activities that nourished her on every level – mind, body and spirit – worked wonders. “When I did this, doors opened and amazing people and happenings came my way.”

She’s learned to trust her instincts. “When I feel myself getting down, I know it’s only me who can shift this, no one else. I immerse myself in what feels right, sharing my feelings with social people. I walk, I drum, I listen to music, I seek holistic modalities, I meditate... I laugh!

“Laughing shifts every cell in my body. The body doesn’t know if you’re faking your laughter or if it’s genuine; laughing just releases endorphins and serotonin; and the stress hormones – cortisol and adrenaline – subside.”

doesn’t have goals. Be more absorbed in what you do, try to be more forgiving, more optimistic and kind to those around you. It might sound clichéd but happiness really is on the inside.”

Our failure to find happiness in all the big events and acquisitions we strive so hard for is explained by a concept the positive psychologists call the ‘hedonic treadmill’ – our rapid adaptation to good and bad things by taking them for granted. All of us, in our everyday lives, are well aware of this syndrome: We’ve all sat on holiday and berated ourselves for not appreciating our surroundings, marvelling at how quickly we’ve become complacent despite dreaming about this moment for so long.

Ever lusted after a new car, job or handbag for months, only to admit six months later that it hasn’t changed your life after all? Countless studies have shown that good things – winning Lotto or an Oscar – have little impact on our happiness level.

But while scientists believe we’re all born with happiness ‘set points’, is it possible to push our happiness levels above our inherited set points? Sonja explains: “Just like the genes for intelligence and cholesterol, our innate happiness set points govern how happy we will be over the course of our lives – but only to a certain extent. Only half of our individual happiness level is determined by that genetically determined set point.”

External circumstances – whether we’re rich, poor, unemployed, educated, married or divorced – account for a further 10% of our individual happiness level, leaving a significant quota, a whopping 40%, up to us.

Alison Ogier-Price has done her own experiments, testing Sonja Lyubomirsky’s 40% theory on Cantabrian residents.

“My findings certainly support that through positive interventions, such as savouring the things we know make us happy, consciously making an effort to be grateful for what we’ve got – and the part we play in that good fortune – and practising random acts of kindness, we can learn to be happier. But the next challenge is to see if and how we can sustain that uplift for six months to a year and, ultimately, for life.”

Happiness, that Holy Grail of emotions, is ultimately subjective and certainly dished out at birth in variable quantities. The discovery that it can be boosted by adopting new habits is one thing, but, like any change in behaviour – quitting smoking or finding the right diet – it requires staying power to produce any lasting effect.

As Sonja says, “There are lots of books whose titles imply that finding greater happiness is easy, but my research shows it isn’t easy; it takes work. But the effort you put in is part of the reward. It’s about the journey as much as the goal. Besides, it may just be the most rewarding work you’ll ever do”. □

Lucy Hone, a regular **Next** contributor, is studying for her master’s in applied positive psychology at the University of Pennsylvania.

HOW POSITIVE ARE YOU?

Are you an upbeat person, or does negativity pervade your self-talk and judgements? Do our quiz to find out the ratio of negative and positive emotions in your life

How have you felt over the past 24 hours? Look back over the past day and, using the 0-4 scale below, indicate the extent to which you have experienced each of the following feelings. 0 = Not at all, 1 = A little bit, 2 = Moderately, 3 = Quite a bit, 4 = Extremely. For example, if you've felt extremely angry, for question 2 circle the number 4. For how to score, and what your score means, see bottom of page.

Not at all = 0, A little bit = 1, Moderately = 2, Quite a bit = 3, Extremely = 4

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| 1 What is the most amused, fun-loving, or silly you felt?
0 1 2 3 4 | 8 What is the most grateful, appreciative, or thankful you felt?
0 1 2 3 4 | 15 What is the most love, closeness, or trust you felt?
0 1 2 3 4 |
| 2 What's the most angry, irritated, or annoyed you felt?
0 1 2 3 4 | 9 What is the most guilty, repentant, or blameworthy you felt?
0 1 2 3 4 | 16 What is the most proud, confident, or self-assured you felt?
0 1 2 3 4 |
| 3 What is the most ashamed, humiliated, or disgraced you felt?
0 1 2 3 4 | 10 What is the most hate, distrust, or suspicion you felt?
0 1 2 3 4 | 17 What is the most sad, down-hearted, or unhappy you felt?
0 1 2 3 4 |
| 4 What's the most awe, wonder, or amazement you felt?
0 1 2 3 4 | 11 What is the most hopeful, optimistic, or encouraged you felt?
0 1 2 3 4 | 18 What is the most scared, fearful, or afraid you felt?
0 1 2 3 4 |
| 5 What is the most contempt, scorn, or disdain you felt?
0 1 2 3 4 | 12 What is the most inspired, uplifted, or elevated you felt?
0 1 2 3 4 | 19 What is the most serene, content, or peaceful you felt?
0 1 2 3 4 |
| 6 What is the most disgust, distaste, or revulsion you felt?
0 1 2 3 4 | 13 What is the most interested, alert, or curious you felt?
0 1 2 3 4 | 20 What is the most stressed, nervous or overwhelmed you felt?
0 1 2 3 4 |
| 7 What is the most embarrassed, self-conscious, or blushing you felt?
0 1 2 3 4 | 14 What's the most joyful, glad, or happy you felt?
0 1 2 3 4 | |

SCORING: To work out your positivity ratio for the day, follow these five steps:

- Circle the 10 items that reflect positivity (amused, awe, grateful, hopeful, inspired, interested, joyful, love, proud, and serene).
- Underline the 10 items that reflect negativity (angry, ashamed, contemptuous, disgust, embarrassed, guilty, hate, sad, scared, and stressed).
- Count the number of positivity items where you scored 2 or higher.
- Count the number of negativity items where you scored 2 or higher.
- Calculate the ratio by dividing your positivity tally by your negativity tally. If your negativity count is 0, count that as 1, to sidestep the can't-divide-by-zero problem. The resulting number represents your positivity ratio for today.

WHAT YOUR SCORE MEANS: This test, designed by Positive Psychology scientist Barbara Fredrickson of North Carolina University, gives only a snapshot of your positivity ratio. "Our emotions change very quickly so any single measure of your positivity ratio can only capture so much," says Barbara. She advises completing a fresh copy of the test at roughly the same time every evening for the next two weeks. Then, she says, count up the positive emotions over the entire fortnight and the same for your negative emotions, for a more accurate positivity ratio. Barbara says positive emotions "open up our hearts and minds, making us more receptive and more creative, while simultaneously allowing us to discover and build new skills, new ties, new knowledge, and news ways of being." In her book, *Positivity*, due out this year, she suggests we strive for a positivity to negativity ratio of 3:1, to unleash the full power of our positive emotions.