A brain surgeon's quest to hold on to joy

Making Happiness Last

By Allan J. Hamilton, MD Illustration by Cici Man

s a surgeon I have used the word "cancer" — the C-word thousands of times in my life. I have spent my entire professional life researching it, trying to find ways to resect it, suppress it, and, whenever possible, outright annihilate it. I knew what it was. I just never imagined what it could *do*. I thought it was just a word. I was wrong. It's nothing like a word. It's a force.

I tripped over it, actually. I went to sleep for what I believed was a relatively routine surgery. The details are not important but the theme is. When I awoke, I was told my procedure had been "aborted." I was in bit of a post-anesthetic haze because I remember thinking to myself, "Boy, did they ever goof! I can't have an abortion. I'm a man." Then it dawned on me. Surgeons *never* abort procedures — unless something's gone terribly wrong. It sank in. I found out my surgery was halted because my surgeon had encountered a tumor. Surely benign, everyone on the staff reassured me. Just a precaution. Best not to proceed, I was told, until they were positive it was not malignant.



s my wife drove me home, I remember telling myself, "This will be okay." But then I inexplicably turned to her and said, "We'd better call the kids." Two days later we were gathered in my surgeon's office. He's a talented, compassionate young man, but he was peering down, gazing at my medical chart as he came through the door. He started speaking to my lab report, so I knew. Still, the C-word was the loudest sound I have ever heard. I became completely deaf. I could see my surgeon's lips were moving but, to this day, I couldn't tell you what he said after those two syllables.

My life was utterly changed.

This was no moment of epiphany. Just the opposite — an absence of illumination. I lost the ability to see clearly. My life's purpose — the answer to which I thought was being a neurosurgeon — went out of focus, a trivial blur. Life seemed to separate itself from me, cracking apart, tumbling away in some terrible tremor.

Blinded, dazed, I became a prisoner of my calendar, confined to the dates and times of examinations and appointments. I looked out at the world through the bars of laboratory tests. Blood. Fluids. Counts. Indices of all manner and description. Scanners. Scopes. Probes. I'd become some new planet, upon which all manner of instruments and optics were brought to bear, transmitting back the encrypted reports of my newly discovered life-form.

Every time, when the next round of tests begin, I feel like I am clutching some cosmic trapeze, leaping out over a great depth, like the Grand Canyon. I'm falling in the thin, cold air, praying for help. Each time my test results come back negative, I feel that heart-stopping grab — the enormous gut-wrenching swoop of salvation. I experience it as incredible, aching, penetrating euphoria. My sight suddenly seems to grow crystal clear, infinitely penetrating. Light seems to spill softly down, kissing every tree, branch, and leaf. Every blade of grass stands out, etched with purpose. Everything makes sense for a moment, like a puzzle pulled into some unified, magnetic message. Even the discovery of the tumor becomes a blessed accident, a reflection of deeper, miraculous coincidence.

I remember driving home after receiving the last

Steps to Overflow the World with Happiness

The experience of happiness simply doesn't last. It can't, given nature of the brain. But that fact by no means suggests that happiness is not a worthy pursuit. Of course it is! The key I believe is to pursue happiness in a dedicated way that actually works. And the fact that this path to happiness is proven to work says everything about who we are deep down, and what we truly aspire to.

beneficent phone call telling me the cytology had come back negative. Everything crackled and danced in front of me. I was alive. Here and now was distinct from everything else. It was like I had been injected with a cocktail of amphetamine, aphrodisiac, hallucinogen, and sweet, essential nectar. The noise of the world became music. My car vibrated with meaning. As I ran my hand along my dog's back, his fur coat became infinitely deep and rich. My wife's skin glowed. I knew what it meant to be in God's bosom.

And then it would fade.

In a few hours — at most, a few days — the high would be gone. How could that be, I wondered? Insight, awareness, enlightenment couldn't just wear off like a drug? But that is exactly what happened. Each time, the battery of tests would roll around again, I would find myself transported. I would want to hold on to the magic of that moment but, hard as I might try, I could not grasp it for long. So I asked myself: Was I the only person? Was I some hopeless dunce who could Keep a journal of blessings. Every day write down three items in your life for which you are grateful. Write as much as you can about each one.

not hold on to "the feeling" of being happy, of being elated for the sake of being?

My old research habits as a scientist die hard. A lifetime of training cannot be easily dissuaded. I began to turn my investigations to this most important question: How can one hold to that incredible moment of happiness? It turns out I am not alone in this matter. Happiness — at least, the pursuit of it — has obsessed almost all of mankind, from our founding fathers to a slew of high-powered scientists who have been tracking the elusive nature of happiness.

Martin Seligman, a psychologist from the University of Pennsylvania, developed a new school of therapy aimed at what he has termed "positive psychology," a discipline that has tried to change the focus of psychoanalysis from mental illness to reinforcing positive traits, such as courage, optimism, and happiness. Seligman has summed up wellbeing in five key attributes using the acronym PERMA. P — positive emotion. E — engagement. R — respect.

Perform three acts of random kindness before noon and three more before sundown. Hurry. Make sure you will get no credit for them and that no one else will ever know about them. M — meaning. And A for achievement. Sounds catchy, but an operational definition of happiness still eludes us.

Surveys of happiness may help us sort out some of the subjective elements of well-being. Happiness might be, in this regard, akin to pornography: we can't tell you what it is, but we know it when

we see it. Surely all of us could answer this question with confidence: which of the following would make us happier: winning the state lottery and getting millions of dollars or being in a car accident and becoming paraplegic and confined to a wheelchair for the rest of our lives? Phillip Brickman and his colleagues at the University of Michigan asked just that question. Naturally, when lottery winners were first informed they had won an enormous sum of money, they were ecstatic, while the accident victims who had been rendered paraplegic were understandably devastated. But — surprise! — one year later, when both groups were reassessed, the lottery winners and paraplegic patients were equally happy. It would seem, at first glance, that happiness is a moving target: when we are given what we dreamed for, it does not make us very happy, and when we are dealt a tragic blow, our happiness rebounds.

Turns out that money doesn't make us all that happy either. Once people make above \$60,000 a year — meet the reasonable goals of a roof, food, a TV set, and one car in the garage — they're just as happy as millionaires. Youth? We all want to feel and look young, right? No, a survey undertaken by the Centers for Disease Control demonstrated that folks in their 20s experienced nearly

twice as many sad days as did those in the mid-60s to 70s. What about seasonal affective disorder — literally, SAD? Surely those basking in the sun on the beaches of California are happier than poor souls trapped in galoshes and earmuffs in the bleak winter of Minnesota. No difference. Californians *thought* they were

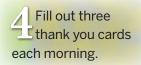
Write testimonials of gratitude to three individuals who meant a great deal to you in your life. If they are still alive, hand deliver them in person. If they have passed away, deliver them in person to their next of kin.

happier, but statistics did not bear that out. Getting a college education? Having a higher IQ? No effect. Having children? Princeton University evaluated questionnaires and rankings of daily activities with respect to happiness among more than 900 women and found that having sex, relaxation, socialization, prayer, and eating consistently scored higher in terms of generating happiness in their daily regimens than did activities involving the children. So did exercise and watching the television. Even cooking and housework were scored just about equal to being with the children! This is despite the fact that more than 35 percent of respondents in a *Time* magazine poll, when asked to name the one thing in life that brought people happiness, stated "being with the children."

Like Trying to be Taller?

How happy we feel has a genetic component, too. The University of Minnesota has done extensive research on more than 4,000 identical twins. Dr. David Lykken found that more than half of our sense of happiness and optimism

in life appears to be genetically determined and that as little as eight percent may come from the factors we typically associate with high levels of happiness, such as socioeconomic status,



education, family, and religion. This led Lykken to propose that each of us has a certain set point for happiness, largely determined by our genetic endowment. Whatever befalls us in life — from winning the lottery to becoming paralyzed — we will come back to that baseline. Events can produce a momentary change. We can get a lift from getting a raise or buying a pair of expensive shoes or being delivered a sad blow because we were stood up by our date or couldn't find an apartment with a view. But quickly usually just a matter of weeks — we come back to where we started, to the disposition, sunny or morose, that our genes provided for us. As Lykken put it: "It may be that trying to be happier is as futile as trying to be taller."

Edward Diener, at the University of Illinois, found that there are, however, two game changers when it comes to our happiness "set point." These are items that lower our happiness baseline: one is losing a spouse and the other is losing a job. Both of these produce a lowering of the level of happiness that can persist for years, long after someone may have even been remarried or gained new employment. Not everyone agrees with Lykken's hypothesis of an unyielding happiness level. Dr. Robert Emmons found that "gratitude journals," a notebook in which subjects write down and count their blessings, could lead to a dramatic increase in perceived levels of happiness. To obtain the response, journal keeping had to be maintained for six weeks, and the more extensive and expansive the entries were, the more dramatic the effect. The raising of happiness also translated into improvements in general energy levels, sleep, and overall well-being. A second important method for raising happiness levels was to set oneself the task of performing acts of altruism, what Anne Herbert termed, "Practice random acts of kindness

and senseless beauty." The catch? Five acts a day.

Seligman and his staff at the University of Pennsylvania conducted an experiment via the Internet, requiring subjects to carry out what were termed "gratitude visits." Participants were asked to write a 300-word testimonial to someone who had had a major, positive effect on their lives. After the testimonial was completed, participants

were to simply request to visit that person and hand deliver the testimonial. Almost always, the occasion elicited tears of affection, gratitude, and joy. Seligman found that even when subjects were tested a year after delivering the testimonial, a sense of enhanced happiness was detectable. Solizman, along with his collogue

was detectable. Seligman, along with his colleague Christopher Peterson at the University of Chicago, put forth the notion of a palette of different kinds of "emotional intelligences" that contribute to our sense of happiness. Dr. Seligman wrote: "[C]erebral virtues – curiosity, love of learning - are less strongly tied to happiness than interpersonal virtues like kindness, gratitude, and capacity for love." Peterson went one step farther and wrote about why acts of altruism may contribute strongly to a sense of happiness: "Giving makes you feel good about yourself. When you're volunteering, you're distracting yourself from your own existence, and that's beneficial. More fuzzily, giving puts meaning into your life. You have a sense of purpose because you matter to someone else." This seems to echo the simple, almost palindromic teaching enunciated by His Holiness the Dalai Lama: "If you want others to be happy, practice

5 Buy three books for three friends and send them anonymously to their attention. compassion. If you want to be happy, practice compassion." Functional MRI studies also reinforce the neuro-scientific validity of this statement: when subjects carry out acts of altruism, researchers see

increased activity in some of the brain's pleasure centers, meaning that it truly *feels* good to *do* good for others.

Even among psychologists, however, there are a few dissenters who insist that personalities are largely predetermined by genetics and relatively fixed by age six. This would suggest that those of us who are optimists and think the glass is half full do so because it is a coping strategy well suited to our nature, rather than by choice. While, on the other hand, the pessimist sees the glass as half empty because it permits him or her to be more defensive and to anticipate threats that might symbolically further deplete the glass. Dr. Julie Norem, author of *The Positive Power of Negative Thinking*, writes of "the half-empty glassers": "Defensive pessimism is a strategy that helps us to work through our anxious thoughts ... it can actually aid our efforts towards self-discovery and enhance our personal growth."

Our Two Selves of Happiness

Daniel Kahneman is a Nobel-prize-winning behavioral economist from Princeton University who has uncovered what I would term "the vacation effect." While on holiday, we may be frustrated by airline delays, surly waiters, and disappointing B&Bs, but when the experience is over and we look back, what do we remember? "Oh, we had a wonderful time in Europe." This selective memory, however, is not restricted to vacations; it holds true even for colonoscopies! Kahneman did a study that allowed subjects to experience an interval of 60 seconds at the end of the procedure when the scope was held stationary (it's when the colonoscope is actively manipulated and moved through the colon that the patient typically experiences pain). Patients allowed to experience a short painless episode turned out to be far more likely to schedule a colonoscopy in the future. Kahneman believes that the

memory of the experience is the most important determinant of how we assess happiness. The point of the colonoscopy is the end (no pun here) of the procedure. The way we remember the last minutes of the procedure determines if we have a

Give three days of earnings anonymously to a charity in the name of three individuals who have wronged you.

positive or negative recollection of the experience.

In fact, Kahneman's work may hold the answer to my original questions. He has identified two distinct "selves" when it comes to happiness. One he calls "the experiential self." This is the part of our minds that experiences events as they happen. The example he uses is someone listening to a vinyl record of a beautiful symphony. The record goes on for 20 minutes, the listener absorbing it all with eyes blissfully closed. Then the needle suddenly skips, making a

Make three apologies for three wrongs you have committed.

horrendous screeching sound, at the very end of the record. Our listener sits up, disgruntled. "Well, that just ruined the whole thing for me!" In fact, the scratch did not ruin *the experience* of the first 20 minutes of listening to the record, but it

ruined *the memory* of listening to it - and that is what the brain records and retains of the experience itself.

This differentiation between the experiential self and the memory self is critical because it highlights what economists, behaviorists, and psychologists have discovered is a major schism in our perception of happiness: we can feel unhappy in how we *experience* our lives but we can, at the same time, feel completely satisfied *thinking* about our lives. Because how we remember our lives trumps how we experience them.

This, in fact, also explains one of the great secrets of modern-day anesthesia. Doctors can now administer rapidly acting intravenous amnestic agents — physicians jokingly refer to one medication that has a slightly whitish color in solution as "milk of amnesia" — that inhibit the brain's ability to encode memories. The amnestic brings out the enormous schism between experience and recollection. How much pain has a patient experienced if he or she can't remember screaming in agony? In both a terrifying and gratifying way, the answer is, effectively, none. By its nature, pain awkwardly resembles crime, in the sense that without a physical repository — without

being memorialized by the brain as evidence — it no longer exists, even if it really happened.

So my own inquiry about the momentary, breathless sense of joy that I feel when my cancer test results come back negative begins to make some sense. I experience a brief flash of bliss. I live through a moment of ecstasy. It is like one singular tree, an experience, in the larger forest of life. If it falls, I may have once heard it, but I no longer

remember its sound. Dumbfounded, I stare at the forest — the dark evergreen edge of a wilderness shaped by hopes for a cure and the fears of recurrence, a landscape in which the sound of one tree falling simply cannot be remembered. It becomes the echo of its own silence, lost between the moment of being and that of recollection.

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