

The New Science of HAPPINESS

What makes the human heart sing? Researchers are taking a close look. What they've found may surprise you

By CLAUDIA WALLIS

SUGARY WHITE SAND GLEAMS UNDER THE BRIGHT YUCATÁN SUN, AQUAMARINE water teems with tropical fish and lazy sea turtles, cold Mexican beer beckons beneath the shady thatch of palapas—it's hard to imagine a sweeter spot than Akumal, Mexico, to contemplate the joys of being alive. And that was precisely the agenda when three leading psychologists gathered in this Mexican paradise to plot a new direction for psychology.

For most of its history, psychology had concerned itself with all that ails the human mind: anxiety, depression, neurosis, obsessions, paranoia, delusions. The goal of practitioners was to bring patients from a negative, ailing state to a neutral normal, or, as University of Pennsylvania psychologist Martin Seligman puts it, "from a minus five to a zero." It was Seligman who had summoned the others to Akumal that New Year's Day in 1998—his first day as president of the American Psychological Association (A.P.A.)—to share a vision of a new goal for psychology. "I realized that my profession was half-baked. It wasn't enough for us to nullify disabling conditions and get to zero. We needed to ask, What are the enabling conditions that make human beings flourish? How do we get from zero to plus five?"

Every incoming A.P.A. president is asked to choose a theme for his or her yearlong term in office. Seligman was thinking big. He wanted to persuade substantial numbers in the profession to explore the region north of zero, to look at what actively made people feel fulfilled, engaged and meaningfully happy. Mental health, he reasoned, should be more than the absence of mental illness. It should be something akin to a vibrant and muscular fitness of the human mind and spirit.

Over the decades, a few psychological researchers had ventured out of the dark realm of mental illness into the sunny land of the mentally hale and hearty. Some of Seligman's own research, for instance, had focused on optimism, a trait shown to be associated with good physical health, less depression and mental illness, longer life and, yes, greater happiness. Perhaps the most eager explorer of this terrain was University of Illinois psychologist Edward Diener, a.k.a. Dr. Happiness. For more than two decades, basically ever since he got tenure and could risk entering an unfashionable field, Diener had been examining what does and does not make people feel satisfied with life. Seligman's goal was to shine a light on such work and encourage much, much more of it.

To help him realize his vision, Seligman invited Ray Fowler, then the long-reigning and influential CEO of the A.P.A., to join him in Akumal. He also invited Hungarian-born psychologist Mihaly Csikszentmihalyi (pronounced cheeks sent me high), best known for exploring a happy state of mind called flow, the feeling of complete engagement in a creative or playful activity familiar to athletes, musicians, video-game enthusiasts—almost anyone who loses himself in a favorite pursuit. By the end of their week at the beach, the three had plans for the first-ever conference on positive psychology, to be held in Akumal a year later—it was to become an annual event—and a strategy for recruiting young talent to the nascent field. Within a few months, Seligman, who has a talent for popularizing and promoting his areas of interest, was approached by the Templeton Foundation in England, which proceeded to create lucrative awards for research in positive psych. The result: an explosion of research on happiness, optimism, positive emotions and healthy character traits. Seldom has an academic field been brought so quickly and deliberately to life.

WHAT MAKES US HAPPY

So, what has science learned about what makes the human heart sing? More than one might imagine—along with some surprising things about what doesn't ring our inner chimes. Take wealth, for instance, and all the delightful things that money can buy. Research by Diener, among others, has shown that once your basic needs are met, additional income does little to raise your sense of satisfaction with life (*see story on page A32*). A good education? Sorry, Mom and Dad, neither education nor, for that matter, a high IQ paves the road to happiness. Youth? No, again. In fact, older people are more consistently satisfied with their lives than the young. And they're less prone to dark moods: a recent survey by the Centers for Disease Control and Prevention found that people ages 20 to 24 are sad for an average of 3.4 days a month, as opposed to just 2.3 days for people ages 65 to 74. Marriage? A complicated picture: married people are generally happier than singles, but that may be because they were happier to begin with (*see page A37*). Sunny days? Nope, although a 1998 study showed that Midwesterners think folks living in balmy California are happier and that Californians incorrectly believe this about themselves too.

On the positive side, religious faith seems to genuinely lift the spirit, though it's tough to tell whether it's the God part or the community aspect that does the heavy lifting. Friends? A giant yes. A 2002 study conduct-

ed at the University of Illinois by Diener and Seligman found that the most salient characteristics shared by the 10% of students with the highest levels of happiness and the fewest signs of depression were their strong ties to friends and family and commitment to spending time with them. "Word needs to be spread," concludes Diener. "It is important to work on social skills, close interpersonal ties and social support in order to be happy."

MEASURING OUR MOODS

Of course, happiness is not a static state. Even the happiest of people—the cheeriest 10%—feel blue at times. And even the bluest have their moments of joy. That has presented a challenge to social scientists trying to measure happiness. That, along with the simple fact that happiness is inherently subjective. To get around those challenges, researchers have devised several methods of assessment. Diener has created one of the most basic and widely used tools, the Satisfaction with Life Scale. Though some schol-

ars have questioned the validity of this simple, five-question survey, Diener has found that it squares well with other measures of happiness, such as impressions from friends and family, expression of positive emotion and low incidence of depression.

Researchers have devised other tools to look at more transient moods. Csikszentmihalyi pioneered a method of using beepers and, later, handheld computers to contact subjects at random intervals. A pop-up screen presents an array of questions: What are you doing? How much are you enjoying it? Are you alone or interacting with someone else? The method, called experience sampling, is costly, intrusive and time consuming, but it provides an excellent picture of satisfaction and engagement at a specific time during a specific activity.

Just last month, a team led by Nobel-prizewinning psychologist Daniel Kahneman of Princeton University unveiled a new tool for sizing up happiness: the day-reconstruction method. Participants fill out a long diary and questionnaire detailing

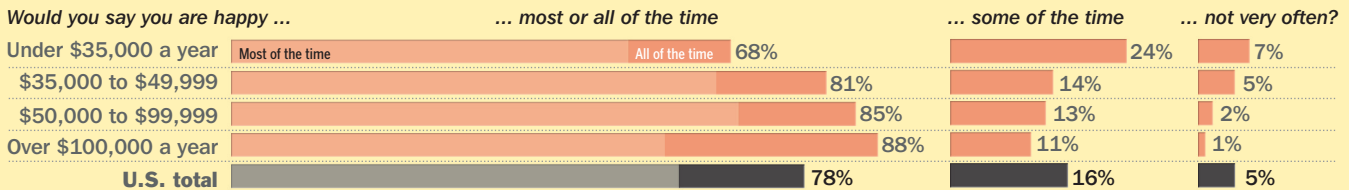
everything they did on the previous day and whom they were with at the time and rating a range of feelings during each episode (happy, impatient, depressed, worried, tired, etc.) on a seven-point scale. The method was tested on a group of 900 women in Texas with some surprising results. It turned out that the five most positive activities for these women were (in descending order) sex, socializing, relaxing, praying or meditating, and eating. Exercising and watching TV were not far behind. But way down the list was "taking care of my children," which ranked below cooking and only slightly above housework.

That may seem surprising, given that people frequently cite their children as their biggest source of delight—which was a finding of a TIME poll on happiness conducted last month. When asked, "What one thing in life has brought you the greatest happiness?," 35% said it was their children or grandchildren or both. (Spouse was far behind at just 9%, and religion a runner-up at 17%.) The discrepancy with the study of Texas women

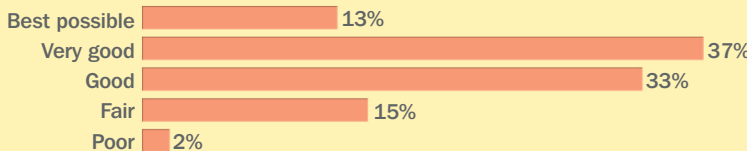
TIME POLL FEELING GOOD IN THE U.S.

Just How Happy Are We? ...

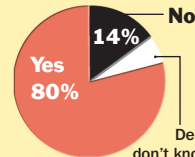
Based on their own assessment, Americans are overwhelmingly happy and optimistic people, regardless of income



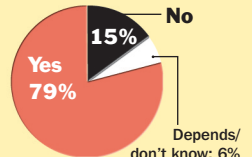
Would you say that so far you have lived the best possible life that you could have, a very good life, a good life, a fair life or a poor life?



Do you generally wake up happy?



Do you consider yourself an optimist?

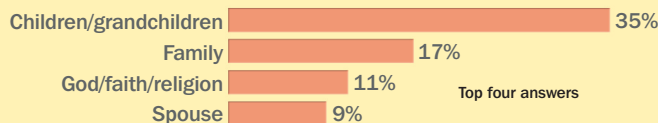


This TIME poll was conducted by telephone Dec. 13-14, 2004, among 1,009 adult Americans by SRBI Public Affairs. Margin of error is ±3 percentage points. "Not sure" omitted for some questions

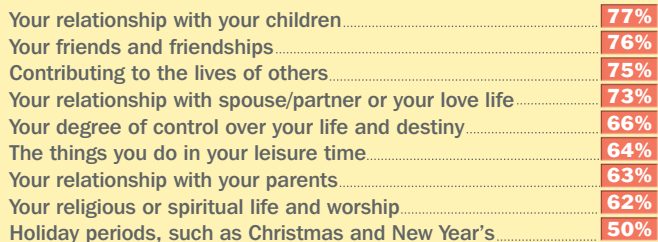
... And What Makes Us That Way?

Most people find happiness in family connections and friendships

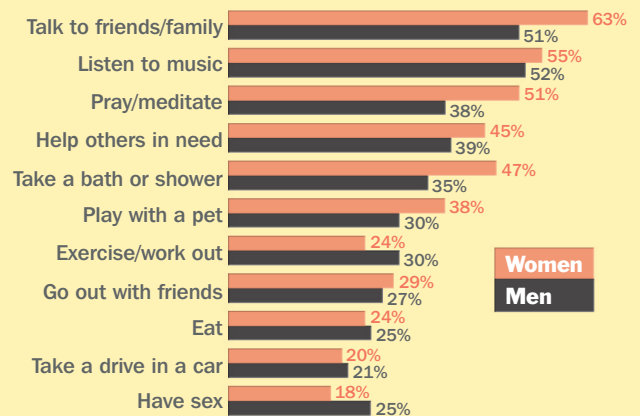
What one thing in your life has brought you the greatest happiness?



What are your major sources of happiness?



Do you often do any of the following to improve your mood?



points up one of the key debates in happiness research: Which kind of information is more meaningful—global reports of well-being (“My life is happy, and my children are my greatest joy”) or more specific data on enjoyment of day-to-day experiences (“What a night! The kids were such a pain!”)? The two are very different, and studies show they do not correlate well. Our overall happiness is not merely the sum of our happy moments minus the sum of our angry or sad ones.

This is true whether you are looking at how satisfied you are with your life in general or with something more specific, such as your kids, your car, your job or your vacation. Kahneman likes to distinguish between the experiencing self and the remembering self. His studies show that what you remember of an experience is particularly influenced by the emotional high and low points and by how it ends. So, if you were to randomly beep someone on vacation in Italy, you might catch that person waiting furiously for a slow-moving waiter to take an order or grouching about the high cost of the pottery. But if you ask when it’s over, “How was the vacation in Italy?”, the average person remembers the peak moments and how he or she felt at the end of the trip.

The power of endings has been demonstrated in some remarkable experiments by Kahneman. One such study involved people undergoing a colonoscopy, an uncomfortable procedure in which a flexible scope is moved through the colon. While a control group had the standard procedure, half the subjects endured an extra 60 seconds during which the scope was held stationary; movement of the scope is typically the source of the discomfort. It turned out that members of the group that had the somewhat longer procedure with a benign ending found it less unpleasant than the control group, and they were more willing to have a repeat colonoscopy.

Asking people how happy they are, Kahneman contends, “is very much like asking them about the colonoscopy after it’s over. There’s a lot that escapes them.” Kahneman therefore believes that social scientists studying happiness should pay careful attention to people’s actual experiences rather than just survey their reflections. That, he feels, is especially relevant if research is to inform quality-of-life policies like how much money our society should devote to parks and recreation or how much should be invested in improving workers’ commutes. “You cannot ignore how people spend their time,” he says, “when thinking about well-being.”

Seligman, in contrast, puts the emphasis on the remembering self. “I think we are our memories more than we are the sum total of our experiences,” he says. For him, studying moment-to-moment experiences puts too much emphasis on transient pleasures and displeasures. Happiness goes deeper than that, he argues in his 2002 book *Authentic Happiness*. As a result of his research, he finds three components of happiness: pleasure (“the smiley-face

piece”), engagement (the depth of involvement with one’s family, work, romance and hobbies) and meaning (using personal strengths to serve some larger end). Of those three roads to a happy, satisfied life, pleasure is the least consequential, he insists: “This is newsworthy because so many Americans build their lives around pursuing pleasure. It turns out that engagement and meaning are much more important.”

CAN WE GET HAPPIER?

One of the biggest issues in happiness research is the question of how much our happiness is under our control. In 1996 University of Minnesota researcher David Lykken published a paper looking at the role of genes in determining one’s sense of satisfaction in life. Lykken, now 76, gathered information on 4,000 sets of twins born in Minnesota from 1936 through 1955. After comparing happiness data on identical vs. fraternal twins, he came to the conclusion that about 50% of one’s satisfaction with life comes from genetic programming. (Genes influence such traits as having a sunny, easy-going personality; dealing well with stress; and feeling low levels of anxiety and depression.) Lykken found that circumstantial factors like income, marital status, religion and education contribute only about 8% to one’s overall well-being. He attributes the remaining percentage to “life’s slings and arrows.”

Because of the large influence of our genes, Lykken proposed the idea that each of us has a happiness set point much like our set point for body weight. No matter what happens in our life—good, bad, spectacular, horrific—we tend to return in short order to our set range. Some post-tsunami images last week of smiling Asian children returning to school underscored this amazing capacity to right ourselves. And a substantial body of research documents our tendency to return to the norm. A study of lottery winners done in 1978 found, for instance, that they did not wind up significantly happier than a control group. Even people who lose the use of their limbs to a devastating accident tend to bounce back, though perhaps not all the way to their base line. One study found that a week after the accident, the injured were severely angry and anxious, but after eight weeks “happiness was their strongest emotion,” says Diener. Psychologists call this adjustment to new circumstances adaptation. “Everyone is surprised by how happy paraplegics can be,” says Kahneman. “The reason is that they are not paraplegic full time. They do other things. They enjoy their meals, their friends. They read the news. It has to do with the allocation of attention.”

In his extensive work on adaptation, Edward Diener has found two life events that seem to knock people lastingly below their happiness set point: loss of a spouse and loss of a job. It takes five to eight years for a widow to regain her previous sense of well-being. Similarly, the effects of a job loss linger long after the individual has returned to the work force.

When he proposed his set-point theory

eight years ago, Lykken came to a drastic conclusion. “It may be that trying to be happier is as futile as trying to be taller,” he wrote. He has since come to regret that sentence. “I made a dumb statement in the original article,” he tells *TIME*. “It’s clear that we can change our happiness levels widely—up or down.”

Lykken’s revisionist thinking coincides with the view of the positive-psychology movement, which has put a premium on research showing you can raise your level of happiness. For Seligman and like-minded researchers, that involves working on the three components of happiness—getting more pleasure out of life (which can be done by savoring sensory experiences, although, he warns, “you’re never going to make a curmudgeon into a giggly person”), becoming more engaged in what you do and finding ways of making your life feel more meaningful.

There are numerous ways to do that, they argue. At the University of California at Riverside, psychologist Sonja Lyubomirsky is using grant money from the National Institutes of Health to study different kinds of happiness boosters. One is the gratitude journal—a diary in which subjects write down things for which they are thankful. She has found that taking the time to conscientiously count their blessings once a week significantly increased subjects’ overall satisfaction with life over a period of six weeks, whereas a control group that did not keep journals had no such gain.

Gratitude exercises can do more than lift one’s mood. At the University of California at Davis, psychologist Robert Emmons found they improve physical health, raise energy levels and, for patients with neuromuscular disease, relieve pain and fatigue. “The ones who benefited most tended to elaborate more and have a wider span of things they’re grateful for,” he notes.

Another happiness booster, say positive psychologists, is performing acts of altruism or kindness—visiting a nursing home, helping a friend’s child with homework, moving a neighbor’s lawn, writing a letter to a grandparent. Doing five kind acts a week, especially all in a single day, gave a measurable boost to Lyubomirsky’s subjects.

Seligman has tested similar interventions in controlled trials at Penn and in huge experiments conducted over the Internet. The single most effective way to turbocharge your joy, he says, is to make a “gratitude visit.” That means writing a testimonial thanking a teacher, pastor or grandparent—anyone to whom you owe a debt of gratitude—and then visiting that person to read him or her the letter of appreciation. “The remarkable thing,” says Seligman, “is that people who do this just once are measurably happier and less depressed a month later. But it’s gone by three months.” Less powerful but more lasting, he says, is an exercise he calls three blessings—taking time each day to write down a trio of things that went well and why. “People are less depressed and happier three months later and six months later.”

Eight Steps Toward a More Satisfying Life

Want to lift your level of happiness? Here are some practical suggestions from University of California psychologist Sonja Lyubomirsky, based on research findings by her and others. Satisfaction (at least a temporary boost) guaranteed

- 1. Count your blessings.** One way to do this is with a "gratitude journal" in which you write down three to five things for which you are currently thankful—from the mundane (your peonies are in bloom) to the magnificent (a child's first steps). Do this once a week, say, on Sunday night. Keep it fresh by varying your entries as much as possible.
- 2. Practice acts of kindness.** These should be both random (let that harried mom go ahead of you in the checkout line) and systematic (bring Sunday supper to an

- elderly neighbor). Being kind to others, whether friends or strangers, triggers a cascade of positive effects—it makes you feel generous and capable, gives you a greater sense of connection with others and wins you smiles, approval and reciprocated kindness—all happiness boosters.
- 3. Savor life's joys.** Pay close attention to momentary pleasures and wonders. Focus on the sweetness of a ripe strawberry or the warmth of the sun when you step out from the shade. Some psychologists suggest taking "mental photographs" of

- pleasurable moments to review in less happy times.
- 4. Thank a mentor.** If there's someone whom you owe a debt of gratitude for guiding you at one of life's crossroads, don't wait to express your appreciation—in detail and, if possible, in person.
 - 5. Learn to forgive.** Let go of anger and resentment by writing a letter of forgiveness to a person who has hurt or wronged you. Inability to forgive is associated with persistent rumination or dwelling on revenge, while forgiving allows you to move on.

- 6. Invest time and energy in friends and family.** Where you live, how much money you make, your job title and even your health have surprisingly small effects on your satisfaction with life. The biggest factor appears to be strong personal relationships.
- 7. Take care of your body.** Getting plenty of sleep, exercising, stretching, smiling and laughing can all enhance your mood in the short term. Practiced regularly, they can help make your daily life more satisfying.
- 8. Develop strategies for coping with stress and hardships.** There is no avoiding hard times. Religious faith has been shown to help people cope, but so do the secular beliefs enshrined in axioms like "This too shall pass" and "That which doesn't kill me makes me stronger." The trick is that you have to believe them.

Seligman's biggest recommendation for lasting happiness is to figure out (courtesy of his website, *reflective-happiness.com*) your strengths and find new ways to deploy them. Increasingly, his work, done in collaboration with Christopher Peterson at the University of Michigan, has focused on defining such human strengths and virtues as generosity, humor, gratitude and zest and studying how they relate to happiness. "As a professor, I don't like this," Seligman says, "but the cerebral virtues—curiosity, love of learning—are less strongly tied to happiness than interpersonal virtues like kindness, gratitude and capacity for love."

Why do exercising gratitude, kindness and other virtues provide a lift? "Giving makes you feel good about yourself," says Peterson. "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." Virtually all the happiness exercises being tested by positive psychologists, he says, make people feel more connected to others.

That seems to be the most fundamental finding from the science of happiness. "Almost every person feels happier when they're with other people," observes Mihaly Csikszentmihalyi. "It's paradoxical because many of us think we can hardly wait to get home and be alone with nothing to do, but that's a worst-case scenario. If you're alone with nothing to do, the quality of your experience really plummets."

But can a loner really become more gregarious through acts-of-kindness exercises? Can a dyed-in-the-wool pessimist learn to see the glass as half full? Can grat-

itude journals work their magic over the long haul? And how many of us could keep filling them with fresh thankful thoughts year after year? Sonja Lyubomirsky believes it's all possible: "I'll quote Oprah here, which I don't normally do. She was asked how she runs five miles a day, and she said, 'I recommit to it every day of my life.' I think happiness is like that. Every day you have to renew your commitment. Hopefully, some of the strategies will become habitual over time and not a huge effort."

But other psychologists are more skeptical. Some simply doubt that personality is that flexible or that individuals can or should change their habitual coping styles. "If you're a pessimist who really thinks through in detail what might go wrong,

that's a strategy that's likely to work very well for you," says Julie Norem, a psychology professor at Wellesley College and the author of *The Positive Power of Negative Thinking*. "In fact, you may be messed up if you try to substitute a positive attitude." She is worried that the messages of positive psychology reinforce "a lot of American biases" about how individual initiative and a positive attitude can solve complex problems.

Who's right? This is an experiment we can all do for ourselves. There's little risk in trying some extra gratitude and kindness, and the results—should they materialize—are their own reward. —With reporting by Elizabeth Coady/Champaign-Urbana, Dan Cray/San Francisco, Alice Park/New York and Jeffrey Ressler/Los Angeles

Measure Your Happiness

How happy are you? Sure, you may think you know, but this little test will help you keep score. The Satisfaction with Life Scale was devised in 1980 by University of Illinois psychologist Edward Diener, a founding father of happiness research. Since then the scale has been used by researchers around the world.

Read the following five statements. Then use a 1-to-7 scale to rate your level of agreement.

1	2	3	4	5	6	7
Not at all true			Moderately true		Absolutely true	

- 1 In most ways my life is close to my ideal.**
- 2 The conditions of my life are excellent.**
- 3 I am satisfied with my life.**
- 4 So far I have gotten the important things I want in life.**
- 5 If I could live my life over, I would change almost nothing.**

Total score _____

Scoring: ● 31 to 35: you are extremely satisfied with your life ● 26 to 30: very satisfied ● 21 to 25: slightly satisfied ● 20 is the neutral point ● 15 to 19: slightly dissatisfied ● 10 to 14: dissatisfied ● 5 to 9: extremely dissatisfied