

Experienced Well-Being

When I became interested in the study of well-being about fifteen years ago, I quickly found out that almost everything that was known about the subject drew on the answers of millions of people to minor variations of a survey question, which was generally accepted as a measure of happiness. The question is clearly addressed to your remembering self, which is invited to think about your life:

All things considered, how satisfied are you with your life as a whole these days?

Having come to the topic of well-being from the study of the mistaken memories of colonoscopies and painfully cold hands, I was naturally suspicious of global satisfaction with life as a valid measure of well-being. As the remembering self had not proved to be a good witness in my experiments, I focused on the well-being of the experiencing self. I proposed that it made sense to say that “Helen was happy in the month of March” if

she spent most of her time engaged in activities that she would rather continue than stop, little time in situations she wished to escape, and—very important because life is short—not too much time in a neutral state in which she would not care either way.

There are many different experiences we would rather continue than stop, including both mental and physical pleasures. One of the examples I had in mind for a situation that Helen would wish to continue is total absorption in a task, which Mihaly Csikszentmihalyi calls *flow*—a state that some artists experience in their creative moments and that many other people achieve when enthralled by a film, a book, or a crossword puzzle: interruptions are not welcome in any of these situations. I also had memories of a happy early childhood in which I always cried when my mother came to tear me away from my toys to take me to the park, and cried again when she took me away from the swings and the slide. The resistance to interruption was a sign I had been having a good time, both with my toys and with the swings.

I proposed to measure Helen’s objective happiness precisely as we assessed the experience of the two colonoscopy patients, by evaluating a profile of the well-being she experienced over successive moments of her life. In this I was following Edgeworth’s hedonimeter method of a century

earlier. In my initial enthusiasm for this approach, I was inclined to dismiss Helen's remembering self as an error-prone witness to the actual well-being of her experiencing self. I suspected this position was too extreme, which it turned out to be, but it was a good start.

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I assembled "a dream team" that included three other psychologists of different specialties and one economist, and we set out together to develop a measure of the well-being of the experiencing self. A continuous record of experience was unfortunately impossible—a person cannot live normally while constantly reporting her experiences. The closest alternative was experience sampling, a method that Csikszentmihalyi had invented. Technology has advanced since its first uses. Experience sampling is now implemented by programming an individual's cell phone to beep or vibrate at random intervals during the day. The phone then presents a brief menu of questions about what the respondent was doing and who was with her when she was interrupted. The participant is also shown rating scales to report the intensity of various feelings: happiness, tension, anger, worry, engagement, physical pain, and others.

Experience sampling is expensive and burdensome (although less disturbing than most people initially expect; answering the questions takes very little time). A more practical alternative was needed, so we developed a method that we called the Day Reconstruction Method (DRM). We hoped it would approximate the results of experience sampling and provide additional information about the way people spend their time. Participants (all women, in the early studies) were invited to a two-hour session. We first asked them to relive the previous day in detail, breaking it up into episodes like scenes in a film. Later, they answered menus of questions about each episode, based on the experience-sampling method. They selected activities in which they were engaged from a list and indicated the one to which they paid most attention. They also listed the individuals they had been with, and rated the intensity of several feelings on separate 0–6 scales (0 = the absence of the feeling; 6 = most intense feeling). Our method drew on evidence that people who are able to retrieve a past situation in detail are also able to relive the feelings that accompanied it, even experiencing their earlier physiological indications of emotion.

We assumed that our participants would fairly accurately recover the feeling of a prototypical moment of the episode. Several comparisons with experience sampling confirmed the validity of the DRM. Because the participants also reported the times at which episodes began and ended, we were able to compute a duration-weighted measure of their feeling

during the entire waking day. Longer episodes counted more than short episodes in our summary measure of daily affect. Our questionnaire also included measures of life satisfaction, which we interpreted as the satisfaction of the remembering self. We used the DRM to study the determinants of both emotional well-being and life satisfaction in several thousand women in the United States, France, and Denmark.

The experience of a moment or an episode is not easily represented by a single happiness value. There are many variants of positive feelings, including love, joy, engagement, hope, amusement, and many others. Negative emotions also come in many varieties, including anger, shame, depression, and loneliness. Although positive and negative emotions exist at the same time, it is possible to classify most moments of life as ultimately positive or negative. We could identify unpleasant episodes by comparing the ratings of positive and negative adjectives. We called an episode unpleasant if a negative feeling was assigned a higher rating than all the positive feelings. We found that American women spent about 19% of the time in an unpleasant state, somewhat higher than French women (16%) or Danish women (14%).

We called the percentage of time that an individual spends in an unpleasant state the U-index. For example, an individual who spent 4 hours of a 16-hour waking day in an unpleasant state would have a U-index of 25%. The appeal of the U-index is that it is based not on a rating scale but on an objective measurement of time. If the U-index for a population drops from 20% to 18%, you can infer that the total time that the population spent in emotional discomfort or pain has diminished by a tenth.

A striking observation was the extent of inequality in the distribution of emotional pain. About half our participants reported going through an entire day without experiencing an unpleasant episode. On the other hand, a significant minority of the population experienced considerable emotional distress for much of the day. It appears that a small fraction of the population does most of the suffering—whether because of physical or mental illness, an unhappy temperament, or the misfortunes and personal tragedies in their life.

A U-index can also be computed for activities. For example, we can measure the proportion of time that people spend in a negative emotional state while commuting, working, or interacting with their parents, spouses, or children. For 1,000 American women in a Midwestern city, the U-index was 29% for the morning commute, 27% for work, 24% for child care, 18% for housework, 12% for socializing, 12% for TV watching, and 5% for sex. The U-index was higher by about 6% on weekdays than it was on weekends, mostly because on weekends people spend less time in

activities they dislike and do not suffer the tension and stress associated with work. The biggest surprise was the emotional experience of the time spent with one's children, which for American women was slightly less enjoyable than doing housework. Here we found one of the few contrasts between French and American women: Frenchwomen spend less time with their children but enjoy it more, perhaps because they have more access to child care and spend less of the afternoon driving children to various activities.

An individual's mood at any moment depends on her temperament and overall happiness, but emotional well-being also fluctuates considerably over the day and the week. The mood of the moment depends primarily on the current situation. Mood at work, for example, is largely unaffected by the factors that influence general job satisfaction, including benefits and status. More important are situational factors such as an opportunity to socialize with coworkers, exposure to loud noise, time pressure (a significant source of negative affect), and the immediate presence of a boss (in our first study, the only thing that was worse than being alone). Attention is key. Our emotional state is largely determined by what we attend to, and we are normally focused on our current activity and immediate environment. There are exceptions, where the quality of subjective experience is dominated by recurrent thoughts rather than by the events of the moment. When happily in love, we may feel joy even when caught in traffic, and if grieving, we may remain depressed when watching a funny movie. In normal circumstances, however, we draw pleasure and pain from what is happening at the moment, if we attend to it. To get pleasure from eating, for example, you must notice that you are doing it. We found that French and American women spent about the same amount of time eating, but for Frenchwomen, eating was twice as likely to be focal as it was for American women. The Americans were far more prone to combine eating with other activities, and their pleasure from eating was correspondingly diluted.

These observations have implications for both individuals and society. The use of time is one of the areas of life over which people have some control. Few individuals can will themselves to have a sunnier disposition, but some may be able to arrange their lives to spend less of their day commuting, and more time doing things they enjoy with people they like. The feelings associated with different activities suggest that another way to improve experience is to switch time from passive leisure, such as TV watching, to more active forms of leisure, including socializing and exercise. From the social perspective, improved transportation for the labor force, availability of child care for working

women, and improved socializing opportunities for the elderly may be relatively efficient ways to reduce the U-index of society—even a reduction by 1% would be a significant achievement, amounting to millions of hours of avoided suffering. Combined national surveys of time use and of experienced well-being can inform social policy in multiple ways. The economist on our team, Alan Krueger, took the lead in an effort to introduce elements of this method into national statistics.

Measures of experienced well-being are now routinely used in large-scale national surveys in the United States, Canada, and Europe, and the Gallup World Poll has extended these measurements to millions of respondents in the United States and in more than 150 countries. The polls elicit reports of the emotions experienced during the previous day, though in less detail than the DRM. The gigantic samples allow extremely fine analyses, which have confirmed the importance of situational factors, physical health, and social contact in experienced well-being. Not surprisingly, a headache will make a person miserable, and the second best predictor of the feelings of a day is whether a person did or did not have contacts with friends or relatives. It is only a slight exaggeration to say that happiness is the experience of spending time with people you love and who love you.

The Gallup data permit a comparison of two aspects of well-being:

- the well-being that people experience as they live their lives
- the judgment they make when they evaluate their life

Gallup's life evaluation is measured by a question known as the Cantril Self-Anchoring Striving Scale:

Please imagine a ladder with steps numbered from zero at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?

Some aspects of life have more effect on the evaluation of one's life than on the experience of living. Educational attainment is an example. More education is associated with higher evaluation of one's life, but not with greater experienced well-being. Indeed, at least in the United States, the

more educated tend to report higher stress. On the other hand, ill health has a much stronger adverse effect on experienced well-being than on life evaluation. Living with children also imposes a significant cost in the currency of daily feelings—reports of stress and anger are common among parents, but the adverse effects on life evaluation are smaller. Religious participation also has relatively greater favorable impact on both positive affect and stress reduction than on life evaluation. Surprisingly, however, religion provides no reduction of feelings of depression or worry.

An analysis of more than 450,000 responses to the Gallup-Healthways Well-Being Index, a daily survey of 1,000 Americans, provides a surprisingly definite answer to the most frequently asked question in well-being research: Can money buy happiness? The conclusion is that being poor makes one miserable, and that being rich may enhance one's life satisfaction, but does not (on average) improve experienced well-being.

Severe poverty amplifies the experienced effects of other misfortunes of life. In particular, illness is much worse for the very poor than for those who are more comfortable. A headache increases the proportion reporting sadness and worry from 19% to 38% for individuals in the top two-thirds of the income distribution. The corresponding numbers for the poorest tenth are 38% and 70%—a higher baseline level and a much larger increase. Significant differences between the very poor and others are also found for the effects of divorce and loneliness. Furthermore, the beneficial effects of the weekend on experienced well-being are significantly smaller for the very poor than for most everyone else.

The satiation level beyond which experienced well-being no longer increases was a household income of about \$75,000 in high-cost areas (it could be less in areas where the cost of living is lower). The average increase of experienced well-being associated with incomes beyond that level was precisely zero. This is surprising because higher income undoubtedly permits the purchase of many pleasures, including vacations in interesting places and opera tickets, as well as an improved living environment. Why do these added pleasures not show up in reports of emotional experience? A plausible interpretation is that higher income is associated with a reduced ability to enjoy the small pleasures of life. There is suggestive evidence in favor of this idea: priming students with the idea of wealth reduces the pleasure their face expresses as they eat a bar of chocolate!

There is a clear contrast between the effects of income on experienced well-being and on life satisfaction. Higher income brings with it higher satisfaction, well beyond the point at which it ceases to have any positive effect on experience. The general conclusion is as clear for well-being as it

was for colonoscopies: people's evaluations of their lives and their actual experience may be related, but they are also different. Life satisfaction is not a flawed measure of their experienced well-being, as I thought some years ago. It is something else entirely.

Speaking of Experienced Well-Being

"The objective of policy should be to reduce human suffering. We aim for a lower U-index in society. Dealing with depression and extreme poverty should be a priority."

"The easiest way to increase happiness is to control your use of time. Can you find more time to do the things you enjoy doing?"

"Beyond the satiation level of income, you can buy more pleasurable experiences, but you will lose some of your ability to enjoy the less expensive ones."