Early in the days of my work on the measurement of experience, I saw Verdi's opera _La Traviata_. Known for its gorgeous music, it is also a moving story of the love between a young aristocrat and Violetta, a woman of the demimonde. The young man's father approaches Violetta and convinces her to give up her lover, to protect the honor of the family and the marriage prospects of the young man's sister. In an act of supreme self-sacrifice, Violetta pretends to reject the man she adores. She soon relapses into consumption (the nineteenth-century term for tuberculosis). In the final act, Violetta lies dying, surrounded by a few friends. Her beloved has been alerted and is rushing to Paris to see her. Hearing the news, she is transformed with hope and joy, but she is also deteriorating quickly.

No matter how many times you have seen the opera, you are gripped by the tension and fear of the moment: Will the young lover arrive in time? There is a sense that it is immensely important for him to join his beloved before she dies. He does, of course, some marvelous love duets are sung, and after 10 minutes of glorious music Violetta dies.

On my way home from the opera, I wondered: Why do we care so much about those last 10 minutes? I quickly realized that I did not care at all about the length of Violetta's life. If I had been told that she died at age 27, not age 28 as I believed, the news that she had missed a year of happy life would not have moved me at all, but the possibility of missing the last 10 minutes mattered a great deal. Furthermore, the emotion I felt about the lovers' reunion would not have changed if I had learned that they actually had a week to-
experienced. Clearly, her life was represented by a prototypical slice of time, not as a sequence of time slices. As a consequence, her "total happiness" was the happiness of a typical period in her lifetime, not the sum (or integral) of happiness over the duration of her life.

As expected from this idea, Diener and his students also found a less-is-more effect, a strong indication that an average (prototype) has been substituted for a sum. Adding 5 "slightly happy" years to a very happy life caused a substantial drop in evaluations of the total happiness of that life.

At my urging, they also collected data on the effect of the extra 5 years in a within-subject experiment; each participant made both judgments in immediate succession. In spite of my long experience with judgment errors, I did not believe that reasonable people could say that adding 5 slightly happy years to a life would make it substantially worse. I was wrong. The intuition that the disappointing extra 5 years made the whole life worse was overwhelming.

The pattern of judgments seemed so absurd that Diener and his students initially thought that it represented the folly of the young people who participated in their experiments. However, the pattern did not change when the parents and older friends of students answered the same questions. In intuitive evaluation of entire lives as well as brief episodes, peaks and ends matter but duration does not.

The pains of labor and the benefits of vacations always come up as objections to the idea of duration neglect: we all share the intuition that it is much worse for labor to last 24 than 6 hours, and that 6 days at a good resort is better than 3. Duration appears to matter in these situations, but this is only because the quality of the end changes with the length of the episode. The mother is more depleted and helpless after 24 hours than after 6, and the vacationer is more refreshed and rested after 6 days than after 3. What truly matters when we intuitively assess such episodes is the progressive deterioration or improvement of the ongoing experience, and how the person feels at the end.

AMNESIC VACATIONS

Consider the choice of a vacation. Do you prefer to enjoy a relaxing week at the familiar beach to which you went last year? Or do you hope to enrich your store of memories? Distinct industries have developed to cater to these alternatives: resorts offer restorative relaxation; tourism is about helping people construct stories and collect memories. The frenetic picture taking of many tourists suggests that storing memories is often an important goal, which shapes both the plans for the vacation and the experience of it. The photographer does not view the scene as a moment to be savored but as a future memory to be designed. Pictures may be useful to the remembering self—though we rarely look at them for very long, or as often as we expected, or even at all—but picture taking is not necessarily the best way for the tourist's experiencing self to enjoy a view.

In many cases we evaluate touristic vacations by the story and the memories that we expect to store. The word memorable is often used to describe vacation highlights, explicitly revealing the goal of the experience. In other situations—love comes to mind—the declaration that the present moment will never be forgotten, though not always accurate, changes the character of the moment. A self-consciously memorable experience gains a weight and a significance that it would not otherwise have.

Ed Diener and his team provided evidence that it is the remembering self that chooses vacations. They asked students to maintain daily diaries and record a daily evaluation of their experiences during spring break. The students also provided a global rating of the vacation when it had ended. Finally, they indicated whether or not they intended to repeat or not to repeat the vacation they had just had. Statistical analysis established that the intentions for future vacations were entirely determined by the final evaluation—even when that score did not accurately represent the quality of the experience that was described in the diaries. As in the cold-hand experiment, right or wrong, people choose by memory when they decide whether or not to repeat an experience.

A thought experiment about your next vacation will allow you to observe your attitude to your experiencing self.

At the end of the vacation, all pictures and videos will be destroyed. Furthermore, you will swallow a potion that will wipe out all your memories of the vacation.

How would this prospect affect your vacation plans? How much would you be willing to pay for it, relative to a normally memorable vacation?

While I have not formally studied the reactions to this scenario, my impression from discussing it with people is that the elimination of memories greatly reduces the value of the experience. In some cases, people treat themselves as they would treat another amnesic, choosing to maximize
overall pleasure by returning to a place where they have been happy in the past. However, some people say that they would not bother to go at all, revealing that they care only about their remembering self, and care less about their amnesic experiencing self than about an amnesic stranger. Many point out that they would not send either themselves or another amnesic to climb mountains or trek through the jungle—because these experiences are mostly painful in real time and gain value from the expectation that both the pain and the joy of reaching the goal will be memorable.

For another thought experiment, imagine you face a painful operation during which you will remain conscious. You are told you will scream in pain and beg the surgeon to stop. However, you are promised an amnesia-inducing drug that will completely wipe out any memory of the episode. How do you feel about such a prospect? Here again, my informal observation is that most people are remarkably indifferent to the pains of their experiencing self. Some say they don't care at all. Others share my feeling, which is that I feel pity for my suffering self but not more than I would feel for a stranger in pain. Odd as it may seem, I am my remembering self, and the experiencing self, who does my living, is like a stranger to me.

**SPEAKING OF LIFE AS A STORY**

"He is desperately trying to protect the narrative of a life of integrity, which is endangered by the latest episode."

"The length to which he was willing to go for a one-night encounter is a sign of total duration neglect."

"You seem to be devoting your entire vacation to the construction of memories. Perhaps you should put away the camera and enjoy the moment, even if it is not very memorable?"

"She is an Alzheimer's patient. She no longer maintains a narrative of her life, but her experiencing self is still sensitive to beauty and gentleness."


33: REVERSALS


354 reversals of judgment and choice: The first step toward the current interpretation was taken by Max H. Bazerman, George F. Loewenstein, and Sally B. White, "Reversals of Preference in Allocation Decisions: Judging Alternatives Versus Judging Among Alternatives," Administrative Science Quarterly 37 (1992): 220–40. Christopher Hsee introduced the terminology of joint and separate evaluation, and formulated the important evatuality hypothesis, which explains reversals by the idea that some attributes become evaluable only in joint evaluation: "Attribute Evaluability: Its Implications for Joint-Separate Evaluation Reversals and Beyond," in Kahneman and Tversky, Choices, Values, and Frames.


356 context in which the choices are made: Lichtenstein and Slovic, The Construction of Preference, 96.


360 superior on this attribute: Hsee, "Attribute Evaluability.


34: FRAMES AND REALITY


366 paid with cash or on credit: Thaler, "Toward a Positive Theory of Consumer Choice.


368 Asian disease problem: Some people have commented that the "Asian" label is unnecessary and pejorative. We probably would not use it today, but the example was written in the 1970s, when sensitivity to group labels was less developed than it is today. The word was added to make the example more concrete by reminding respondents of the Asian flu epidemic of 1957.


35: TWO SELVES


384 burst of stimulation: Peter Shizgal, "On the Neural Computation of Utility: Implications
36: LIFE AS A STORY


388 entire lives as well as brief episodes: Ed Diener, Derrick Wirtz, and Shigehiro Oishi, "End Effects of Rated Life Quality: The James Dean Effect," Psychological Science 12 (2001): 124–28. The same series of experiments also tested for the peak-end rule in an unhappy life and found similar results: Jen was not judged twice as unhappy if she lived miserably for 60 years rather than 30, but she was regarded as considerably happier if 5 mildly miserable years were added just before her death.

37: EXPERIENCED WELL-BEING

391 life as a whole these days: Another question that has been used frequently is, "Taken all together, how would you say things are these days? Would you say that you are very happy, pretty happy, or not too happy?" This question is included in the General Social Survey in the United States, and its correlations with other variables suggest a mix of satisfaction and experienced happiness. A pure measure of life evaluation used in the Gallup surveys is the Cantril Self-Anchoring Striving Scale, in which the respondent rates his or her current life on a ladder scale in which 0 is "the worst possible life for you" and 10 is "the best possible life for you." The language suggests that people should anchor on what they consider possible for them, but the evidence shows that people all over the world have a common standard for what a good life is, which accounts for the extraordinarily high correlation (r = .84) between the GDP of countries and the average ladder score of their citizens. Angus Deaton, "Income, Health, and Well-Being Around the World: Evidence from the Gallup World Poll," Journal of Economic Perspectives 22 (2008): 53–72.

392 "a dream team": The economist was Alan Krueger of Princeton, noted for his innovative analyses of unusual data. The psychologists were David Schkade, who had methodological expertise; Arthur Stone, an expert on health psychology, experience sampling, and ecological momentary assessment; Norbert Schwarz, a social psychologist who was also an expert on survey method and had contributed experimental critiques of well-being research, including the experiment on which a dime left on a copying machine influenced subsequent reports of life satisfaction.

393 intensity of various feelings: In some applications, the individual also provides physiological information, such as continuous recordings of heart rate, occasional records of blood pressure, or samples of saliva for chemical analysis. The method is called ecological momentary assessment: Arthur A. Stone, Saul S. Shiffman, and Marten W. DeVries, "Ecological Momentary Assessment Well-Being: The Foundations of Hedonic Psychology," in Kahneman, Diener, and Schwarz, Well-Being, 26–39.


393 physiological indications of emotion: Previous research had documented that people are able to "relive" feelings they had in a past situation when the situation is retrieved in sufficiently vivid detail. Michael D. Robinson and Gerald L. Clore, "Belief and Feeling: Evidence for an Accessibility Model of Emotional Self-Report," Psychological Bulletin 128 (2002): 934–60.


395 Gallup World Poll: For a number of years I have been one of several Senior Scientists associated with the efforts of the Gallup Organization in the domain of well-being.


397 $75,000 in high-cost areas: In a TED talk I presented in February 2010 I mentioned a preliminary estimate of $60,000, which was later corrected.


38: THINKING ABOUT LIFE


399 only significant fact in their life: Strack, Martin, and Schwarz, "Priming and Communication."

399 questionnaire on life satisfaction: The original study was reported by Norbert Schwarz in his doctoral thesis (in German) "Mood as Information: On the Impact of Moods on the Evaluation of One's Life" (Heidelberg: Springer Verlag, 1987). It has been described in many places, notably Norbert Schwarz and Fritz Strack, "Reports of Subjective Well-Being: Judgmental Processes and Their Methodological Implications," in Kahneman, Diener, and Schwarz, Well-Being, 61–84.


401 "being very well-off financially": Alexander Astin, M. R. King, and G. T. Richardson, "The

402 money was not important: These results were presented in a talk at the American Economic Association annual meeting in 2004. Daniel Kahneman, “Puzzles of Well-Being,” paper presented at the meeting.

403 happiness of Californians: The question of how well people today can forecast the feelings of their descendants a hundred years from now is clearly relevant to the policy response to climate change, but it can be studied only indirectly, which is what we proposed to do.

403 aspects of their lives: In posing the question, I was guilty of a confusion that I now try to avoid: Happiness and life satisfaction are not synonymous. Life satisfaction refers to your thoughts and feelings when you think about your life, which happens occasionally— including in surveys of well-being. Happiness describes the feelings people have as they live their normal life.

403 I had won the family argument: However, my wife has never conceded. She claims that only residents of Northern California are happier.

403 students in California and in the Midwest: Asian students generally reported lower satisfaction with their lives, and Asian students made up a much larger proportion of the samples in California than in the Midwest. Allowing for this difference, life satisfaction in the two regions was identical.

403 How much pleasure do you get from your car?: Jing Xu and Norbert Schwarz have found that the quality of the car (as measured by Blue Book value) predicts the owners’ answer to a general question about their enjoyment of the car, and also predicts people’s pleasure during joyrides. But the quality of the car has no effect on people’s mood during normal commutes. Norbert Schwarz, Daniel Kahneman, and Jing Xu, “Global and Episodic Reports of Hedonic Experience,” in R. Belli, D. Alwin, and F. Suffoletto (eds.), Using Calendar and Diary Methods in Life Events Research (Newbury Park, CA: Sage), pp. 157–74.

404 paraplegics spend in a bad mood?: The study is described in more detail in Kahneman, “Evaluation by Moments.”


CONCLUSIONS


411 Irrational is a strong word: The view of the mind that Dan Ariely has presented in Predictably Irrational: The Hidden Forces That Shape Our Decisions (New York: Harper, 2008) is not much different from mine, but we differ in our use of the term.

