

## **Anomalies**

# Utility Maximization and Experienced Utility

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Economics can be distinguished from other social sciences by the belief that most (all?) behavior can be explained by assuming that rational agents with stable, well-defined preferences interact in markets that (eventually) clear. An empirical result qualifies as an anomaly if it is difficult to rationalize or if implausible assumptions are necessary to explain it within the paradigm. Suggestions for future topics should be sent to Richard Thaler, c/o *Journal of Economic Perspectives*, Graduate School of Business, University of Chicago, Chicago, Illinois 60637 or <richard.thaler@gsb.uchicago.edu>.

### **Introduction**

The assumption that utility is always maximized allows often surprising inferences about the nature of the desires that guide people's ever-rational choices. This methodology has had many uses and undeniably has charm for economists, but it rests on the shaky foundation of an implausible and untested assumption. In this column, we discuss a version of the utility maximization hypothesis that can be tested—and we find that it is false.

Our analysis begins with a distinction between two senses of the term utility. *Decision utility* has also been called “wantability”; it is inferred from choices and used to explain choices. In contrast, *experienced utility* refers to the hedonic experience

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associated with an outcome. This is the meaning of utility that Jeremy Bentham introduced, and it was mostly retained by the economists of the nineteenth century. Edgeworth's *Mathematical Psychics* (1871), for example, was quite explicit about this, and even defined happiness as the temporal integral of momentary experienced utility. But the notion of utility as an aspect of experience essentially disappeared from economic discourse at the beginning of the twentieth century, when utility came to be construed as decision utility.

In the older interpretation of utility, the question of whether choices maximize utility has a simple meaning: do people choose the options that they will most enjoy? In modern decision theory, which ignores the distinction, the question is quite different: are preferences consistent with each other and with the axioms of rational choice? A long series of modern challenges to utility theory, starting with the paradoxes of Allais (1953) and Ellsberg (1961) and including framing effects, have demonstrated inconsistency in preferences. This column reviews empirical challenges to utility maximization, which return to the old question of whether preferences optimize the experience of outcomes; for an early treatment along these lines, see Kahneman (1994). Much of this work has focused on a necessary condition for utility-maximizing choices: an ability of economic agents to make accurate, or at least unbiased, forecasts of the hedonic outcomes of potential choices. The research we review shows that this condition is not satisfied: people do not always know what they will like; they often make systematic errors in predicting their future experience of outcomes and, as a result, fail to maximize their experienced utility.

We assume that when making a choice at time  $t_0$ , the consumer makes a forecast of the utility of an outcome that will be experienced at a later time  $t_1$ . These forecasts of utility, which we call hedonic forecasts, may be explicit (and thus observable) or implicit, in which case they must be inferred from the agent's choices at  $t_0$ . Systematic errors of hedonic forecasting can be demonstrated in several ways: by comparing hedonic forecasts with direct measures of experienced utility; by creating situations in which choices lead to demonstrably inferior experiences; and by showing that hedonic forecasts or choices are influenced by factors that are clearly irrelevant.

Consider the example of a very hungry shopper (he missed lunch) doing his weekly shopping at a grocery store late one Monday afternoon. If his current state of hunger induces him to buy an overly large dinner portion for consumption later in the week (on a day when he will eat his normal lunch at the office) then he has made a forecasting error that has led to a bad choice. As we illustrate below, such forecasting errors can arise for a variety of reasons. Most hedonic forecasting is done intuitively rather than carefully considered, and forecasts are susceptible to the biases found in other intuitive judgments (Kahneman, 2003; Gilovich, Griffin and Kahneman, 2004). Unlike the products of deliberate and conscious reasoning activity (such as the process that produces the answer to the question  $17 \times 24 = ?$ ), intuitive judgments express impressions (or feelings or immediate preferences)

that come spontaneously to mind. In the jargon of psychology, such thoughts are labeled highly accessible.

A process of substitution is involved in many of the heuristics that govern intuitive thinking. When people confront a difficult question, the answer to a related question will often come to mind first. The accessible answer may be adopted as the required answer without the individual ever becoming aware that the wrong question has been answered (Kahneman, 2003). For example, the choices of the hungry shopper who salivates at the sight of enticing food items may express his current aroused state, rather than a dispassionate forecast of his appetite on Thursday evening. In many cases, the substitute answer is only one of the determinants of the final judgment or decision. However, the net outcome of substitution is a directional bias, known as anchoring, toward the highly accessible response to a question that was not asked.

We consider an individual who makes a decision at time  $t_0$  that will affect consumption at some later time  $t_1$ . The context and mental state of the individual at  $t_0$  influences the intuitive evaluations that will come to mind when the decision is made. If the circumstances at  $t_1$  and  $t_0$  differ, judgments and decisions that reflect the state at  $t_0$  are likely to be biased. An early study provides a simple example. Subjects tasted a spoonful of plain yogurt and immediately rated their experience. They were then asked to predict how they would rate the experience of consuming a full cup of the same yogurt. A strong anchoring effect was observed: most subjects erroneously predicted that they would rate the experience of a full cup the same as they had just rated the spoonful. They evidently failed to anticipate that ingesting a substantial amount of a disliked substance is distinctly worse than a single swallow.

To be clear, we do not claim that people do not know what they like. They do, when  $t_1$  immediately follows  $t_0$  and when the experience is familiar: we are rarely surprised by the taste of the second spoonful from a bowl of soup. However, people do not always know what they *will* like, and they are likely to err most severely when the temporal gap is long and when the agent's state and circumstances vary between  $t_1$  and  $t_0$ . In this column we discuss four areas in which errors of hedonic forecasting and choice have been documented: 1) where the emotional or motivational state of the agent is very different at  $t_0$  and at  $t_1$ ; 2) where the nature of the decision focuses attention on aspects of the outcome that will not be salient when it is actually experienced; 3) when choices are made on the basis of flawed evaluations of past experiences; and 4) when people forecast their future adjustment to new life circumstances.

## Effects of the Current Emotional State

The "hungry shopper" example illustrates a proposition that has been systematically explored in numerous studies: forecasts of future hedonic and emotional states are anchored in the current emotional and motivational state. The outcome has been labeled a "projection bias" (Loewenstein, O'Donoghue and Rabin, 2003)

since consumers are seemingly projecting their current mental state onto a future one. In particular, Loewenstein has documented what he calls a “hot-cold empathy gap.” When aroused—by hunger, sex or anger—people mispredict how they will behave in a “cool” state, and when cool they mispredict the influence of arousal. In both situations they underestimate the impact of a change from their current state.

The hungry shopper is not hypothetical. It is well-established that shoppers who are hungry tend to buy food as if they expected to remain permanently famished (Nisbett and Kanouse, 1968), but shoppers who are given a muffin to eat before entering the supermarket are more likely to restrict their shopping to the items on their list (Gilbert, Gill and Wilson, 1998). The effect is easily explained: the attractiveness of food increases with current hunger. Of course, the delicacy (or bag of potato chips) that appears irresistibly succulent to the hungry shopper may have lost much of its charm when it is consumed later. Similar effects have been found for other motives. For example, Badger, Bickel, Giordano, Jacobs, Loewenstein and Marsch (2004) documented a projection bias in a study of heroin addicts. Addicts who had not yet received a dose of a heroin substitute Buprenorphine (BUP) were willing to pay significantly more for an extra dose, due to be delivered five days later, than were addicts who had just received their dose of BUP and were temporarily in a drug-satiated state. In a more mundane context, Colin, O’Donoghue and Vogelsang (2004) find that catalogue shoppers ordering by telephone are overly influenced by the current weather, and prone to buy items they will not want later. For example, warm clothes purchased on very cold days are more likely to be subsequently returned.

Another demonstration of projection bias is provided by Read and Van Leeuwen (1998), who offered office workers a choice between a healthy and an unhealthy snack (fruit versus candy bar) to be delivered in a week, either at a time when the workers would expect to be hungry (late afternoon) or full (right after lunch). Some workers made this choice when they were hungry, others when full. There are two main findings. First, workers are more likely to opt for the naughty snack if it will be *delivered* when they expect to be hungry. This choice expresses a correct hedonic forecast: hungry people are indeed more likely than sated people to choose candy over fruit for immediate consumption. However, the workers were also more likely to choose the unhealthy snack when they were hungry *at the time of making the choice*.

The projection bias implies a violation of utility maximization, because it is highly unlikely that the enjoyment of the snack next week will be influenced by the level of hunger at the moment of choice. Anchoring on the present state also causes errors if the salience of different aspects of an outcome is not the same when it is chosen and when it is experienced. The purchase of membership in sports clubs provides an example. The health benefits are the focus of attention at the time of purchase, but other considerations are likely to be more salient when the question is whether to visit the club. The failure to anticipate these shifts of salience may contribute to many purchases of memberships by people who later make little or no use of them (Della Vigna and Malmendier, forthcoming).

More generally, some virtuous choices that people make may involve a lack of empathy for the future self who will have to live with the choice. In an elegant demonstration of this phenomenon, Read, Loewenstein and Kalyanaraman (1999) provided experimental participants with coupons that allowed them free rental of several films. Films of two types were available: some were edifying or “highbrow” (like *Schindler’s List*) while others were lowbrow and fun (*Sleepless in Seattle*). The films were to be available either for the same evening or for the next day. Subjects tended to select lowbrow movies for viewing tonight and highbrow movies for tomorrow. The desire to improve one’s mind is apparently more salient when choosing a movie for later, while the desire to relax is more salient when choosing for the very near future. It is unlikely that these conflicting choices are both utility maximizing.

### Effects of the Context of Choice

The main strategy of the studies we discuss in this section involves a search for differences between the state of the individual at time  $t_0$  and  $t_1$ , which may cause discrepancies between the utility of a good in decision or forecast and its utility in actual experience. Two aspects of the task that is performed at  $t_0$  have been investigated as a source of such discrepancies: whether the task requires the evaluation of a single good or a comparison of the values of two competing goods; and whether a decision involves multiple goods that will be consumed at different times.

A good may be evaluated in explicit comparison with other goods (*joint evaluation*) or on its own (*separate evaluation*). The preference ranking of two goods may be different when they are compared explicitly to each other (joint evaluation) or evaluated separately, perhaps by willingness to pay or by a rating. Hsee (2000) has documented one of the mechanisms that produce such reversals of preference: subtle differences between goods (like two shades of purple) may be highly noticeable when the goods are directly compared, but the same differences may be completely undetectable when the goods are evaluated separately. The salience of attributes of a good can therefore be quite different in joint and in separate evaluation.

Hsee (2000) observed that the context in which consumers make choices is likely to induce similar reversals, because consumers often make choices in joint evaluation (for example when comparing televisions at a store), but subsequently experience only the option they chose. He offered a compelling thought experiment to illustrate the point. Imagine that you are in the market for stereo speakers and that you are comparing various models at the home audio store. You narrow your choice down to two similarly priced models, A and B. The A speakers sound somewhat better than the B speakers, but are quite ugly. Which do you choose? At the store you engage in joint evaluation, comparing one model against another. Furthermore, your attention is likely to be focused on the quality of the sound and

you may assign considerable weight to small differences in this attribute. But your task is to predict the utility you will derive from the speakers when you listen to music at home. At home there will be just one set of speakers, so you will be performing a separate evaluation. Small differences in sound quality will not be noticeable without a standard of comparison. In contrast, comparison is not required to evaluate whether an object is ugly or beautiful. Consumers are therefore susceptible to the mistake that Hsee described, paying too much attention to the small (but noticeable *in the store*) difference in sound quality and too little attention to appearance.

Comparative effects can arise even when the task does not explicitly require it. Volunteers in a study conducted by Morewedge, Gilbert and Myrseth (2005) were asked to predict how much they would enjoy eating potato chips a few minutes later. In one experimental condition subjects could also see a chocolate bar next to the potato chips; in another condition the chocolate was replaced by a tin of sardines. The irrelevant foods influenced the participants' predictions of their future enjoyment, which was reduced by the presence of the chocolate (subjects prefer chocolate to chips to sardines). The prediction was comparative, although no comparison was required. Actual enjoyment of the chips, however, was completely unaffected by the irrelevant food that remained on the table. The experience of eating is focused on the food one consumes and is not comparative.

A different type of discrepancy between the context of choice and the context of experience arises when people make a simultaneous choice about goods that will be consumed sequentially. An example is the choice of which CDs to load into the stack of a CD player (Read, Antonides, van den Ouden and Trienekens, 2001). The construction of a sequence inevitably highlights the attribute of variety (in the case of CDs, variety of singers or of types of music). However, the variety of a sequence is usually less salient in the experience of consumption. As a consequence, people often choose more variability than they will actually enjoy. Variety is also less salient when the elements of the sequence are chosen one at a time than when they are chosen all at once.

In the first demonstration of this phenomenon (Simonson, 1990), students chose three snacks from a menu of six alternatives (like Snickers bars and Oreo cookies), one snack for each of three class sessions. Students in the simultaneous-choice group chose all three snacks during the first session, while the sequential-choice group chose a single snack in each session. Simultaneous-choice subjects typically took a different snack for each class, while sequential-choice subjects often wanted the same snack every time. Here again, the highly accessible answer to a question that has not been asked appears to dominate the decision. Imagining one's tastes in a week is cognitively more demanding than consulting one's current inclinations, and the unasked question is whether the participant would want three helpings of the same snack right now, or would prefer some variety. Simonson and Winer (1992) found similar behavior in actual purchases. Families who purchased the same number of tubs of yogurt took more variety in flavors if they purchased them in one shopping trip than in several trips.

Read and Loewenstein (1995) introduced the term *diversification bias* to refer to the excess variety-seeking in simultaneous choice. The term implies that sequential choice leads to higher experienced utility. This prediction was confirmed in several studies in which participants reported their enjoyment of decisions made either simultaneously or sequentially. For example, participants in a study by Read, Antonides, van den Ouden and Trienekens (2001) chose two audio tracks (music or comedy) either sequentially or simultaneously. They chose more variety in simultaneous choice, but they enjoyed high-variety sets less than low-variety ones. The authors proposed that simultaneous decisions cause the attribute of variety to be much more salient in simultaneous choice than it will be at the time of actual consumption. One reason for this is that two items in the same category (say albums by U2 and the Rolling Stones, both rock bands) may appear quite similar when considered in the broad context of all music, including jazz, classical and so on, but will be still be quite distinctive when experienced in immediate succession.

## Learning from the Past

Consumers' choices often involve experiences they have already had, as in visiting a restaurant with a familiar menu. Preferences and hedonic forecasts are informed by personal memory in these cases and might therefore be expected to be extremely accurate. Indeed, choices from a familiar menu do not yield many hedonic surprises. However, hedonic forecasts that are based on stored evaluations of past encounters will be biased if these memories are biased, and several sources of such biases of remembered utility have been established. Like forecasts of the future, evaluations of the past are anchored on the individual's emotional state when the evaluation is made (Stone, Broderick, Porter and Kaell, 1997). In addition, global evaluations of extended outcomes systematically overweight some parts of the experience and underweight others. These biases produce compelling violations of utility maximization.

Biased evaluations of past episodes were documented in a series of early experiments in which participants reported retrospective evaluations of experiences that varied in both hedonic value and duration: for example, pleasant or horrific films, annoyingly loud sounds and painful medical procedures (Schreiber and Kahneman, 2000). In most of these experiments, the participants also provided a continuous or intermittent report of the quality of their current experience, using a joystick or answering periodic questions. A robust finding of the retrospective evaluations collected in these studies was labeled *duration neglect*: retrospective evaluations of episodes were radically insensitive to variations of duration. Subjects' retrospective evaluations of both pleasant and unpleasant experiences were well-explained by a *peak/end rule*: a simple average of the quality of the experience at its most extreme moment and at its end predicted retrospective evaluations with substantial accuracy.

The peak/end rule violates an elementary principle of rational evaluation,

*temporal monotonicity*, which asserts that increasing the duration of a painful episode does not improve its overall utility. By the peak/end rule, however, extending a period of pain can improve its remembered utility if the peak is unchanged and the new end is less aversive than the original. To demonstrate this result, Kahneman, Fredrickson, Schreiber and Redelmeir (1993) paid experimental participants to undergo three trials of an experience called the cold-pressor, in which a hand is immersed to the wrist in painfully cold water and kept there until the experimenter announces that it may be removed. The first two trials were conducted as follows. In the Short trial, a hand was immersed in water at 14°C for 60 seconds. In the Long trial, the hand was also immersed at 14°C for 60 seconds, and then over the next 30 seconds, the temperature was gradually raised to 15°C. The two trials were separated by seven minutes, and their order was counterbalanced across subjects. The participants continuously indicated the intensity of the pain they experienced, using a joystick. The mean of reported pain intensity in both conditions was 8.4 on a scale of 0–14 after 60 seconds, which is when the Short trial ended. When the Long trial ended, mean reported pain was only 6.5, still somewhat painful, but a distinct improvement of the peak/end average.

Seven minutes after the second trial, the participant was asked to choose which of the two experiences would be repeated for the third trial. Overall, 22 of 32 participants elected to repeat the Long trial, which exposed them to 30 seconds of pain they could have avoided. The proportion of choices of the Long trial was 80 percent (17/21) among the participants who indicated diminishing pain during the last 30 seconds of that trial. The remaining 11 participants, who had indicated no change in pain, divided their choices about equally between the Long and the Short trial. Both results are predicted by the peak/end rule.

Similar violations of temporal monotonicity have been observed in diverse settings. For example, a clinical trial of colonoscopy was conducted in which half the patients were randomly exposed to a condition in which their colonoscopy was extended by keeping the instrument stationary for about a minute before removing it (Redelmeier, Katz and Kahneman, 2003). The extra period was uncomfortable, but not very painful.<sup>1</sup> This manipulation resulted in a highly significant improvement of retrospective judgments of the pain of the procedure and in a marginal increase in the observed frequency of repeat colonoscopies within the subsequent five years. Violations of dominance were also found in choices between episodes of annoyingly loud noise (Schreiber and Kahneman, 2000): adding a period of mildly reduced loudness to an unpleasant noise made it less aversive in memory and more likely to be chosen for repetition.

The violations of temporal monotonicity in these experiments are not intentional. Subjects recognize the validity of this rule and conform to it if their attention is appropriately directed. Indeed, experimental participants prefer the Short cold-

<sup>1</sup> These experiments were conducted before it became common practice to sedate patients heavily. We are cheerfully able to reassure anyone being urged their doctor to undergo this procedure that “you won’t feel a thing.”



pressor trial over the Long one when the two trials are verbally described. When they choose on the basis of their memories, however, their preferences reflect the neglect of duration as a factor in the evaluation of past episodes.

## **Mispredicting Adaptation**

People must sometimes predict the hedonic effect of a long-term change in life circumstances. Social psychologists Daniel Gilbert and Timothy Wilson originally coined the term “affective forecasting” to describe this mental activity. Many of the changes that people make in their life circumstances are driven by the wish to improve their happiness or reduce their unhappiness and inevitably invoke some idea of the hedonic effects of these circumstances. People forecast the happiness or misery of acquaintances who marry, of couples who divorce, of professors who get tenure and others who do not, of people who move from the Midwest to California or others who move in the opposite direction. People also have strong intuitions about the effects on well-being of being rich or poor, obese or athletic, old or young. These intuitions and forecasts may be relevant to decisions about jobs, marriage, divorce and moving to California. As Gilbert and Wilson (2000) noted, mistakes of affective forecasting can cause erroneous choices, which they called “miswanting.”

The central result of many explorations of affective forecasting and of intuitive theories about well-being has been described as a “focusing illusion,” which Schkade and Kahneman (1998) summarized by a maxim: “Nothing in life matters quite as much as you think it does while you are thinking about it.” In other words, there is a powerful tendency to exaggerate the importance of any aspect of life when one focuses attention on it. The bias is easily explained. The task of evaluating the impact of a change in life circumstances inevitably draws attention to the distinctive aspects of the change. For example, thoughts of climate are very likely to be salient in considering a move to California, or in evaluating a proposition such as “people are happier in California.” But this selective focus is likely to bias judgments, for at least two reasons: 1) as in the projection bias, forecasts made when attention is focused on some attribute of an outcome are likely to be in error if attention is *not* directed to the same attribute at the critical time in the future; and 2) affective forecasts almost always deal with outcomes that will *not* remain at the focus of attention forever.

Schkade and Kahneman (1998) observed a focusing illusion in investigating a question many of us who live in the East or Midwest have wondered about: would we be happier if we lived in California? They polled students at two large Midwest universities and two large southern California universities. The students were asked a series of questions about life satisfaction, either about themselves or “a student with your values and interests” at one of the other universities. Respondents in both California and the Midwest believed that students in California would be significantly happier, yet self-reported happiness was virtually identical in the two

locations. The explanation is straightforward: When asked to report on their well-being, people normally focus on more central aspects of life and pay little attention to the climate. When they try to imagine the happiness of someone in a different location, however, dimensions on which the regions differ will loom large. Climate is therefore more important in affective forecasts than in actual well-being—hence the bias.<sup>2</sup>

The focusing illusion helps resolve two central puzzles in the study of well-being. The first puzzling observation is that people often adapt surprisingly well to important changes in their lives, even such dramatic changes as becoming a paraplegic or winning the lottery. These events may have large immediate effects on well-being or misery, but the effects tend to be short-lived. The second puzzling observation is that the first is surprising. Although adaptation is ubiquitous, it is poorly represented in the naïve theory of well-being from which affective forecasts are drawn. Unless they knew a paraplegic personally, for example, respondents in an experiment described by Kahneman (2000) made similar predictions of the mood of a paraplegic, regardless of whether they were told that the individual had been paralyzed for only a month or for a whole year. The same insensitivity to time was observed when respondents predicted the mood of lottery winners. Here again—unless they knew a lottery winner personally—respondents predicted the same level of euphoria for lottery winners a month or a year after the event. In both situations the pattern of responses was quite different for respondents who had personal knowledge of a relevant case. Personal knowledge was not a significant factor in predictions of the initial misery of paraplegics and the initial bliss of lottery winners—we suspect that naïve predictions of the initial emotional response to significant events are often accurate. However, only the better-informed respondents knew that the initial misery or bliss have largely dissipated within a year of the event.

Withdrawal of attention is the main mechanism of adaptation to life changes such as becoming a paraplegic, becoming suddenly wealthy or getting married. Attention is normally associated with novelty. Thus, the newly paraplegic, lottery winner or newlywed is almost continuously aware of that state. But as the new state loses its novelty it ceases to be the exclusive focus of attention, and other aspects of life again evoke their varying hedonic responses. Research indicates that paraplegics are in a fairly good mood more than half the time as soon as one month after their crippling accident. Intuitive affective forecasts will miss this process of attentional adaptation, unless they are corrected by specific personal knowledge.

Gilbert and Wilson have conducted a systematic program of research on biases of affective forecasting, in which they reported several demonstrations of *duration bias*, which is their label for the underestimation of adaptation. In a typical study, Gilbert, Pinel, Wilson, Blumberg and Wheatley (1998) interviewed current and former junior faculty members at the University of Texas. The current assistant

<sup>2</sup> Truth in advertising forces us to disclose that one of the authors of the California study has recently moved to southern California, but he claims that the move was not (solely) influenced by the weather.

professors were asked a series of 14 “life satisfaction” questions (“in general, how happy are you these days. . .”) and then were also asked about how happy they would be at various stages of their life in the event that they were either given or denied tenure. Former assistant professors—some of whom had been promoted, others denied—were also polled about their happiness. These were pooled into two groups: those whose tenure decision was within the past five years, and those for whom it had been from six to ten years ago. Current junior faculty members think that tenure will make them very happy in the short run (first five years) and somewhat less happy thereafter. They also think that getting denied will make them quite miserable during the first five years, though they expect to be pretty well recovered after that. However, actual reactions during the first five years after the tenure decision—both favorable and unfavorable—were generally far milder than anticipated. Gilbert et al. report similar biases in forecasts regarding the impact of success or failure in other domains, from dating to the outcome of a political election or a major sporting event. The conclusion from this body of research is that people are systematically wrong in their expectations about the life circumstances that will increase or decrease their happiness, which in turn implies that life choices that people make in their pursuit of happiness are also likely to be wrong.

## Commentary

Utility maximization is usefully thought of as a goal. People are trying to make choices that will, on average, make them as well-off as possible, as judged by themselves, not others. But to maximize utility successfully, one must start by making a forecast about how the various possible outcomes will be experienced. And, if forecasts are systematically biased, then choices may systematically fail to maximize utility. The studies we have reviewed here document numerous cases where forecasts of future utility do appear to be biased.

Although many of the experimental studies we have reviewed here use inexpensive objects such as snacks and CDs in their designs, it would be a mistake to think that the failure to maximize utility is a low-stakes problem. Getting the portfolio of snacks right is an easy problem compared to forming a portfolio of retirement investments, and the problem a young person faces in predicting her tastes and income requirements in retirement is difficult indeed. Even the task of choosing how to make the best of what resources are available now is a nontrivial one that people may be getting quite wrong. For example, Tibor Scitovsky (1976) in his classic book, *The Joyless Economy*, argued that consumers, especially American consumers, mistakenly purchase too much of what he called “comforts” and too little of what he called “pleasures.” Indeed, Americans and Europeans have reached quite different equilibria regarding issues such as vacation time. It is certainly possible that American workers would be happier with more vacation and less pay.

We should end on an important proviso. The fact that people sometimes fail to maximize utility does *not* imply that someone else (spouses, parents, employers,

governments) should usurp the right to choose. Spouses, parents, employers and bureaucrats also make errors, and the best parents are those who let their children make some of their own mistakes. But in some cases, those who are “in charge” can guide and influence choices without restricting anyone’s freedom to choose, adopting what Sunstein and Thaler (2004) call “libertarian paternalism.” One tool of libertarian paternalists is setting default options in such a way as to help people avoid the most common errors of utility maximization. Because of strong inertia, and other factors, default choices are often selected even when opting out is essentially costless. For example, an enlightened employer might gradually add days of vacation time (and smaller pay increases) while giving employees the right to work those extra vacation days for pay (so all options remain available). Though workers might not select the new default option themselves if starting from scratch, they might find themselves both taking the extra vacation days and being reluctant to leave for another job with “less” vacation time. If so, they would have been helped on their way to successful utility maximization.

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