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Welfare as Happiness

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INTRODUCTION

When people write laws, what do they hope to accomplish? One view is that laws are written to drive people toward moral behavior or to embody an objective ideal of what is right. Whether or not those claims have merit, most would agree that another objective—making people’s lives better—is also at minimum a major goal of law. Improving the quality of life might not be the only thing that matters, but such improvement is desirable. Indeed, improving people’s lives is the explicit focus of much of the policymaking and regulatory work done by our government.

If it is true that an important goal of legal policy is to make life better, then the next question is what “better” means. For the past hundred years, the dominant view has been that the way to improve someone’s life is to make her more able to get what she wants.¹ This “preference satisfaction” approach, which is most closely associated with economics but also enjoys preeminence in both law and philosophy, is “[a]s of now, the theory to beat.”² Nonetheless, in the past two decades, a rival account known as virtue ethics has gained widespread attention.³ Drawing on the work of Aristotle, virtue ethics

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¹ DANIEL M. HAYBRON, *THE PURSUIT OF UNHAPPINESS: THE ELUSIVE PSYCHOLOGY OF WELL-BEING* 34 (2008) (“The dominant account among economists and philosophers over the last century or so . . . identifies well-being with the satisfaction of the individual’s desires.”).

² *Id.*

³ *Id.* at 35 (“Aristotelian theories . . . have stirred considerable interest since the revival of virtue ethics and the rise of the Sen-Nussbaum capabilities approach in political theory.”). See also Lawrence B. Solum, *Natural Justice*, 51 *AM. J. JURIS.* 65 (2006); Lawrence B. Solum, *Virtue Jurisprudence: A Virtue-Centered Theory of Judging*, 34 *METAPHILOSOPHY* 179 (2003).

holds that the quality of someone's life depends on the extent to which she does well the things that it is characteristically human to do.⁴

In this Article, we articulate and defend a definition of well-being or quality of life that differs from both of those leading accounts. We argue that well-being is neither preference-satisfaction nor nature-fulfillment but rather happiness or positive affect—*feeling good*. A person's well-being is the aggregate of how she feels throughout her life. This definition captures more directly and naturally the concept of well-being than do the alternatives, and it stands up better to analytical scrutiny.

The intuitive appeal of our approach is so strong that one might wonder why it has not already gained broad acceptance. One part of the answer may be that positive and negative feelings are thought to be invisible, inaccessible, and unmeasurable.⁵ Policymakers who aim to improve lives must focus on something tangible and easily observed. Nature-fulfillment and especially preference-satisfaction fit the bill because both focus on external activity: the things people do and the choices they make. Happiness, by contrast, is internal: how can we know how a person feels?

This concern about measuring happiness has been addressed by recent groundbreaking research in the fields of psychology and neurobiology, pioneered by Nobel laureate Daniel Kahneman and others. The research provides a sophisticated means of measuring and analyzing people's positive and negative feelings. We have previously explored the implications of this research for both criminal and civil law,⁶ and we now use it as a means of defining and pursuing one of law's central goals.

If we are right that happiness constitutes well-being, then law and public policy should turn their attention in that direction insofar as they aim to improve people's lives. Economists have heavily influenced law and policy to increase people's capacity to satisfy their preferences. Instead, the focus should be on increasing subjective well-being. We will illustrate how the new research makes this

⁴ HAYBRON, *supra* note 1, at 35 (identifying “*nature-fulfillment*” as the common feature of eudaimonistic accounts of well-being).

⁵ See *infra* notes 24-25 and accompanying text.

⁶ John Bronsteen, Christopher Buccafusco, & Jonathan S. Masur, *Happiness and Punishment*, 76 U. CHI. L. REV. (forthcoming 2009); John Bronsteen, Christopher Buccafusco, & Jonathan S. Masur, *Hedonic Adaptation and the Settlement of Civil Lawsuits*, 109 COLUM. L. REV. 1516 (2008).

objective possible and realistic to achieve. To that end, we introduce a new, subjectively oriented decision tool—well-being analysis (WBA).

In Part I, we explain our view of welfare and the boundaries of our claims about welfare relative to other possible goals of law and policy. We also describe the methods of measuring happiness, as well as what we take happiness itself to entail. In Part II, we contrast happiness with Aristotelian virtue ethics; and in Part III, we contrast happiness with the preference-satisfaction approach (in particular, a refined version of this approach that we take to be the most plausible and persuasive example of it). In Part IV, we explain how governments that currently use the economic tool of cost-benefit analysis could instead perform WBA no less easily or effectively.

To the extent that our society aims to make human life better, it should focus on making people happier. This Article argues for that position and sets out a preliminary blueprint for pursuing it.

I. A HAPPINESS-BASED APPROACH TO WELL-BEING

We take up four initial tasks in this first Part. One is to note the limitations of the claim we are making. Unlike utilitarians, we do not argue that well-being or quality of life is all that should matter to individuals and governments. We argue only that well-being is important, and that it is happiness⁷ that constitutes well-being. To whatever extent a society decides it wants to increase quality of life, the way to do so is to increase happiness. In the second and third sections, we make the initial case that happiness is what constitutes a person's quality of life. (We defend the conceptual superiority of this approach over the leading alternatives in Parts II and III.) The second section notes that the experience of life is wholly sensory and concludes that improving the feeling of those sensory experiences is the only way to improve someone's life. The third section elaborates on the nature of positive and negative emotions. Finally, the fourth section discusses the new psychological tools for measuring happiness. These tools not only give us insight into the nature of

⁷ We use interchangeably the terms “happiness,” “positive affect,” “positive mental states,” and “feeling good.” In Part I.B., *infra*, we argue that an individual's aggregated happiness—the sum of that individual's experiences over time—is the appropriate measure of that individual's “subjective well-being”: her overall subjectively felt experience. We then proceed to use “subjective well-being” interchangeably with “happiness.”

people's experience of life, but also enable us to analyze policy through the lens of its effects on well-being.⁸

A. *Weak Welfarism*

Economists and utilitarian philosophers occupy such a central place in the literature on well-being that, to avoid confusion, we will take a moment to make explicit the difference between our claims and those of traditional welfarism or utilitarianism. Whereas those theories deem well-being⁹ the only thing of value and seek to maximize the overall amount of it, we make a more limited contention. Like the “weak welfarism” of Matthew Adler and Eric Posner,¹⁰ our approach is open to the possibility that things other than overall human welfare could have value. Examples include “moral rights, the fair distribution of welfare, and even moral considerations wholly detached from welfare, such as intrinsic environmental values.”¹¹

We advocate only that a policymaker treat an increase in welfare as a positive thing, potentially to be weighed against other sorts of values. We view this claim as relatively uncontroversial and will treat it as little more than an assumption or axiom.¹² The contrary view that welfare is not desirable—that there is no value in pursuing it even where all else is equal—is strongly at odds with standard intuitions and would likely produce policy results deemed unacceptable by most.¹³

⁸ We flesh out that idea in Part IV.

⁹ We use the words well-being, welfare, and utility interchangeably as labels for that which is good for a person—that which makes her life better. Our argument is that happiness (defined as positive mental states, or subjectively feeling good) constitutes that thing (well-being, welfare, utility, or that which is good for a person).

¹⁰ *E.g.*, MATTHEW D. ADLER & ERIC A. POSNER, *NEW FOUNDATIONS OF COST-BENEFIT ANALYSIS* 52-61 (2006).

¹¹ *Id.* at 53.

¹² See Mark Kelman, *Hedonic Psychology and the Ambiguities of “Welfare”*, 33 *PHIL. & PUB. AFF.* 391, 391 (2005) (“Philosophers have disagreed about the place of human welfare in judgments about public policies generally and their distributive outcomes in particular. But virtually all agree that welfare effects should play *some* role, at least when welfare improvements can be achieved without violating ‘side constraints.’”).

¹³ Indeed, even the leading critics of utilitarianism value welfare and thus do not oppose our suggestion that it be counted as a good for the purposes of policymaking.

B. *Happiness and the Subjective Experience of Life*

Like any animal, a person experiences life wholly through sensory perception of the world. The person, in turn, is constituted by a set of physiological processes in her mind and body. All thoughts, feelings, and actions are, at bottom, a function of these processes.¹⁴

Some of a person's experiences of life are negative, whereas others are positive. Touching a burning stove and recoiling in pain would be a typical negative experience, whereas eating a chocolate-chip cookie and feeling a sensation of pleasure would be a typical positive one. Even higher-order experiences, such as reading a book or thinking about a loved one, produce cognitive or emotional sensations in a person's brain that the individual registers as positive or negative; either the individual is enjoying the book, or she is not. Because these sorts of experienced moments constitute a person's life,¹⁵ and because each moment is positive or negative for the person depending on her physiological experience of it (i.e., how it makes her feel), these feelings make up the subjective quality of a life. They determine whether someone experiences her own life as positive or negative. What it means for something to be a bad experience for an individual is for it to make the individual feel bad. Negative feelings define bad life experiences, whereas positive feelings define good ones.¹⁶

It could be argued that whether a moment is positive or negative for a person does not depend solely on that person's physiological experience of it. Indeed, disagreeing with our thesis may well require such an argument. But what else could make it positive or negative? A person's experience of the world is

E.g., Michael S. Moore, *Torture and the Balance of Evils*, 23 *ISR. L. REV.* 280, 331-32 (1989).

¹⁴ Our approach to these issues is derived from our commitment to materialist or naturalist explanations of human behavior. See OWEN FLANAGAN, *THE REALLY HARD PROBLEM: MEANING IN THE MATERIAL WORLD* (2007). For a discussion of naturalism in legal philosophy, see BRIAN LEITER, *NATURALIZING JURISPRUDENCE: ESSAYS ON AMERICAN LEGAL REALISM AND NATURALISM IN LEGAL PHILOSOPHY* (2007).

¹⁵ By this we mean that life is simply a collection of all of its moments.

¹⁶ We qualify this point a bit later in this section. A negative experience can, for example, increase welfare in the long run by decreasing the likelihood of more negative experiences.

exclusively physiological,¹⁷ and when in any moment someone has a positive or negative feeling, that feeling is her physiological experience of the moment. Unless she has other feelings simultaneously,¹⁸ nothing else can comprise the experience for her because her feelings are the sum total of the way that she experiences life.

C. *Welfare as Happiness*

We equate human welfare with the subjective, individual experience of positive feeling. On this view, the correct measure of welfare for a period of any duration, from a couple of minutes to an entire lifetime, is the aggregate of a person's moment-by-moment experiences of positive and negative feeling. This account of well-being as moment-by-moment affect owes much to Daniel Kahneman's work on "objective happiness."¹⁹ As a person progresses through life, her various experiences are associated with different emotional states some of which will be positive, while others will be negative, neutral, or a combination of positive and negative.

This association occurs across the spectrum of emotions.²⁰ For example, positive feelings of love, joy, and awe might feel different from one another, but they hold in common a sensation of positivity—being drawn to the feeling rather than away from it.²¹ Moreover, the various activities that a person engages in, from playing sports to dining with friends to making judgments about her life satisfaction, are each attended by positive or negative emotions. In terms of happiness,

¹⁷ We mean "physiological" in the broad sense of the word, including of course mental and emotional feelings. They, too, are produced by physical processes within the body. See ANTONIO DAMASIO, *THE FEELING OF WHAT HAPPENS: BODY AND EMOTION IN THE MAKING OF CONSCIOUSNESS* (1999).

¹⁸ If so, then all of these feelings would be part of her level of happiness and therefore her well-being and quality of life.

¹⁹ Daniel Kahneman, *Experienced Utility and Objective Happiness: A Moment-Based Approach*, in *CHOICES, VALUES, AND FRAMES* 673 (Daniel Kahneman & Amos Tversky eds., 2000) (hereinafter *Experienced Utility*); Daniel Kahneman, *Objective Happiness*, in *WELL-BEING: THE FOUNDATIONS OF HEDONIC PSYCHOLOGY* 3 (Daniel Kahneman et al., eds. 1999) (hereinafter *Objective Happiness*).

²⁰ See JAY SCHULKIN, *BODILY SENSIBILITY: INTELLIGENT ACTION* 14 (2004) ("Behavioral systems are organized for approach and exploration and to avoid and reject objects.").

²¹ *Id.*; Kahneman, *Experienced Utility*, *supra* note 19, at 683.

there is thus a commensurability among varying feelings and in turn the activities that influence those feelings.²² People make these kinds of comparisons whenever they decide how to spend their time, and the well-being measures discussed below enable the measurement of the emotion people actually experience while doing different things.²³

Because we define well-being as subjectively felt experience, it follows that its ideal measure is one that perfectly tracks how people feel over time. Whether or not such perfection could theoretically be achieved by a device that constantly measured internal processes such as brain activity, at the moment we must settle for a proxy. We analyze and compare the available proxies in the section that follows.

D. *Measuring Happiness*

More than a century ago, the economist Francis Edgeworth proposed the possibility of developing a “hedonimeter” to measure the changes in pleasure and pain that an individual experiences.²⁴ Before such a tool could have been developed, however, it was rendered superfluous by the paradigm shift in economic theory toward the rational choice assumption that people naturally choose what makes them happy. In gauging people’s welfare, economists could simply look to the decisions that people made between different choices on the assumption that if they chose state *A* over state *B*, it was because *A* provided them more utility than *B*. This approach has been labeled “decision utility.”²⁵

Although direct measurement of welfare fell out of favor with mainstream economics throughout much of the twentieth century, some pockets of social science research kept the tradition alive, including the determination of Quality Adjusted Life Years (QALYs) that compare the value of living a given number of years in normal

²² See Kahneman, *Objective Happiness*, *supra* note 19, at 8 (“...it appears that most moments of experience can be adequately characterized by a single summary value on the [Good-Bad] dimension”).

²³ See Kahneman, *Experienced Utility*, *supra* note 19, at 683.

²⁴ FRANCIS Y. EDGEWORTH, *MATHEMATICAL PSYCHICS: AN ESSAY ON THE APPLICATION OF MATHEMATICS TO THE MORAL SCIENCES* 98 (C. Kagan Paul & Co., London 1881). On Edgeworth, see David Colander, *Edgeworth’s Hedonimeter and the Quest to Measure Utility*, 21 *J. ECON. PERSPECTIVES* 215 (2007).

²⁵ See Daniel Kahneman et al., *Back to Bentham: Explorations of Experienced Utility*, 112 *Q. J. ECON.* 375, 375 (1997).

health with years of survival in disabling health conditions.²⁶ In addition, objective indicators of welfare, including GDP, infant mortality, and literacy, grew in popularity during this period. Not until the 1980s, however, did subjective assessments of well-being reemerge as acceptable tools for measuring happiness. Since then, the variety of techniques available to researchers has expanded considerably.²⁷ In contrast to economic models, these tools enable measurement of “experience utility,” or the well-being that people actually feel.²⁸

There are now a wide variety of available measures that purport to gauge well-being. In the sections that follow, we argue that of these, the best proxy for actual subjective well-being (and thus for human welfare) is the moment-by-moment experience sampling method.²⁹ Sampling methods do the best job of measuring the essential constituents of welfare (i.e., momentary affect), and they substantially minimize many of the assessment concerns associated with other techniques. In addition, we provide evidence that the various happiness measures are substantially correlated with one another and with external reports of well-being. Finally, we briefly review some of hedonic psychology’s key findings and their implications for enhancing social welfare.

1. Experience Sampling Assessments

Even as a theoretical matter, we cannot know whether psychologists will ever be able to measure a person’s well-being purely through a physiological analysis of what is occurring within her brain and body. In any event, the current state of neuroscience is such that our best approach to learning how someone feels is simply to ask her. There are different ways to ask, though, and a breakthrough in social science has been the commitment to asking specific questions about an experience *during* the experience. In recent years

²⁶ See M.C. WEINSTEIN & H.V. FINEBERG, CLINICAL DECISION MAKING (1980).

²⁷ See William Pavot, *The Assessment of Subjective Well-Being: Successes and Shortfalls*, in THE SCIENCE OF SUBJECTIVE WELL-BEING 124, 124 (Michael Eid & Randy J. Larsen eds., 2008).

²⁸ See Kahneman et al., *supra* note 25, at 375. Strictly speaking, a number of the survey methods discussed below measure “remembered utility” or how people felt. Nonetheless, they are qualitatively different from preference-based approaches to welfare that focus on anticipated emotion.

²⁹ See *infra* notes 30-39 and accompanying text.

psychologists have created a number of “ecological” assessments to measure the happiness associated with various events while they are occurring.³⁰ While these techniques can be used to measure the (less useful) cognitive assessments of well-being,³¹ they are particularly valuable for their contribution to measures of moment-by-moment affect. The experience sampling method (ESM), for example, uses palmtop computers to signal subjects randomly throughout their day.³² When they receive a signal, subjects use the computers to indicate the activity they are engaged in and how they feel about it.³³ With technological advances and the ubiquity of palmtop computers, BlackBerries, and text messaging, it may soon be possible to develop large-scale indices of happiness based on regularly collected data from many of a given country’s citizens.³⁴

Unlike surveys that ask subjects to record their satisfaction with life as a whole,³⁵ these moment-by-moment techniques minimize many of the measurement errors associated with memory and aggregation biases.³⁶ And while life satisfaction measures might cover broad swaths of experiences, momentary affect scales enable researchers to detect changes in emotion associated with narrower

³⁰ See JOEL M. HEKTNER ET AL., *EXPERIENCE SAMPLING METHOD: MEASURING THE QUALITY OF EVERYDAY LIFE* (2007); Arthur A. Stone et al., *Ecological Momentary Assessment*, in *WELL-BEING*, *supra* note 19, at 26.

³¹ We discuss these measures in Part I.D.2, *infra*.

³² See Christie N. Scollon et al., *Experience Sampling: Promises and Pitfalls, Strengths and Weaknesses*, 4 *J. HAPPINESS STUD.* 5 (2003).

³³ *Id.* Another technique, the day reconstruction method (DRM), asks participants to recall the activities of the previous day, isolate them into separate episodes, and assign each episode various emotional ratings. See Daniel Kahneman et al., *A Survey Method for Characterizing Daily Life Experience: The Day Reconstruction Method*, 306 *SCI.* 1776, 1776 (2004) (hereinafter *DRM*).

³⁴ See Ed Diener, *Subjective Well-Being: The Science of Happiness and a Proposal for a National Index*, 55 *AM. PSYCHOL.* 34, 40 (2000) (“I propose that the United States needs indicators of SWB that can be used to track happiness over time. Ideally, these indicators would include ESMs of nationally representative samples of respondents. National ESM surveys could provide valuable information on how frequently and intensely people feel satisfied and happy in various life circumstances and across types of situations.”) So far, Bhutan is the only country to have adopted a National Happiness Index. Andrew C. Revkin, *A New Measure of Well-Being From a Happy Little Kingdom*, *N.Y. TIMES*, Oct. 4, 2005, at F1.

³⁵ See Part I.D.2, *infra*.

³⁶ See Daniel Kahneman & Richard H. Thaler, *Anomalies: Utility Maximization and Experienced Utility*, 20 *J. ECON. PERSPECTIVES* 221, 227-29 (2006).

experiences.³⁷ Importantly, these narrower experiences are more likely to be the focus of legal policy. In addition, momentary scales do not ignore the importance people may place on holistic satisfaction judgments. Such judgments are associated with positive or negative affect,³⁸ and a sufficiently fine-grained moment-by-moment measure of affect will detect them.³⁹ Finally, because momentary measures can reduce each experience to a one-dimensional assessment of affect, taken over a particular duration, they allow for cardinal, rather than merely ordinal, comparisons of well-being. Accordingly, we believe that these sampling methods currently provide the best proxies for well-being.

2. Life Satisfaction Surveys

The earliest and still most consistently used method for subjective assessment of well-being is the personal survey of life satisfaction.⁴⁰ Although surveys can be used to measure various aspects of subjective well-being, they often rely on general questions like: “Taken as a whole, how satisfied are you with your life these days?”⁴¹ Because these scales tend to have relatively few items, they can easily be combined with large-scale general population surveys that obtain data on many aspects of respondents’ life circumstances.⁴² This allows for analysis of the correlation between life satisfaction and demographic data such as age, wealth, health, family life, and

³⁷ See Daniel Kahneman & Robert Sugden, *Experienced Utility as a Standard of Policy Evaluation*, 32 *Environmental & Resource Econ.* 161, 174 (2005).

³⁸ See *supra* notes 21-23 and accompanying text.

³⁹ Kelman suggests that the “higher-order meaning people attach to life experience” will be missed by momentary affect measures. See Kelman, *supra* note 12, at 406. While this might be true with the relatively coarse measurement techniques currently available to researchers, it is not conceptually true. Under our account, higher-order judgments are affect-laden experiences of certain duration just like active or sensory experiences. Accordingly, the time people spend contemplating their lives and the emotions associated with those thoughts would be captured by an ideally fine-grained measure of momentary well-being.

⁴⁰ See Ed Diener, *Myths in the Science of Happiness, and Directions for Future Research*, in *THE SCIENCE OF SUBJECTIVE WELL-BEING*, *supra* note 27, at 508.

⁴¹ The Satisfaction with Life Scale is a widely used five-item scale used to assess an individual’s overall life satisfaction. See William Pavot & Ed Diener, *Review of the Satisfaction with Life Scale*, 5 *PSYCHOL. ASSESSMENT* 164 (1993).

⁴² See Pavot, *supra* note 27, at 128-9 (The Satisfaction with Life Scale “offers very good internal consistency and temporal reliability, yet it is brief and easily incorporated into a larger research design.” *Id.*

employment. Initially, life satisfaction surveys utilized cross-sectional analyses, for example by contrasting the self-reported well-being of married people with unmarried people.⁴³ More recently, however, researchers have turned to extensive longitudinal life satisfaction surveys that track individuals over a period of years.⁴⁴ Longitudinal studies allow researchers to match individuals' entry into a particular life circumstance (such as marriage) with changes in their life satisfaction, thus isolating the effect of the change and diminishing the effects of selection and unobserved variables.⁴⁵

Life satisfaction surveys require respondents to reflect on their experiences, to combine the way those experiences made them feel, and to assign a score to the aggregate emotion. Although these surveys may in some circumstances serve as reasonable proxies for subjective well-being (a point we return to below), they can be affected by participants' cognitive and emotional biases.⁴⁶ General, abstract surveys, such as life satisfaction surveys, suffer from two other dangers.⁴⁷ One is that people might forget how they felt during an experience if they are asked at a later time, and the other is that people might make mistakes in trying to aggregate different moments of experience.⁴⁸ For example, recent research has shown that instead of aggregating the sum of their hedonic response to an event, people tend to calculate the event's effect by averaging only the peak response and the end response.⁴⁹ This leads to lower hedonic reports for a four-minute negative experience than for the same experience with a one-minute period of slightly less painful experience appended

⁴³ For a review of such studies, see Michael Argyle, *Causes and Correlates of Happiness*, in WELL-BEING, *supra* note 19, at 359-62.

⁴⁴ See, e.g., Richard E. Lucas et al., *Reexamining Adaptation and the Set Point Model of Happiness: Reactions to Changes in Marital Status*, 84 J. PERSONALITY & SOC. PSYCHOL. 527 (2003); Andrew E. Clark et al., *Lags and Leads in Life Satisfaction: A Test of the Baseline Hypothesis*, 118 ECON. J. F222, F231 (2008); Richard A. Lucas, *Time Does Not Heal All Wounds: A Longitudinal Study of Reaction and Adaptation to Divorce*, 16 PSYCHOL. SCI. 945 (2005).

⁴⁵ See Lucas et al., *supra* note 44, at 527.

⁴⁶ See Kahneman et al., *DRM*, *supra* note 33, at 1777.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ See Kahneman & Thaler, *supra* note 36, at 227-29 (2006). They find that people's ratings of a hedonic experience seem to be based on an average of the most intense aspect of the experience (the peak) and the final aspects of the experience (the end).

to it.⁵⁰ Concerns about such biased responses to surveys motivated researchers to develop well-being assessments that measured responses in close to real time.⁵¹

Nonetheless, life satisfaction surveys can have value as an inexpensive proxy for more refined measures of well-being, especially to the extent that their reliability can be tested by the level of correlation with ESM studies.

3. Reliability and Validity

Despite the fact that moment-by-moment measures of well-being are more reliable than holistic life satisfaction inquiries, it is noteworthy that these different measures of well-being correlate strongly with one another. Overall life satisfaction is correlated both with the amount of positive and negative affect that a person feels⁵² and with her satisfaction with the domains of her life.⁵³ In addition, subjective reports of well-being are strongly correlated with one another and with external measures such as third-party informant reports,⁵⁴ facial expressions,⁵⁵ and neurological data.⁵⁶ These facts lend credence to the notion that “happiness” is a valid, distinct construct, and one that moment-by-moment measures of affect are capable of capturing fully.

Well-being measures also tend to be fairly stable over time and exhibit high test-retest reliability.⁵⁷ But despite their overall stability,⁵⁸

⁵⁰ *Id.*

⁵¹ See Kahneman et al., *DRM*, *supra* note 33, at 1777.

⁵² Michael Eid & Ed Diener, *Global judgments of subjective well-being: Situational variability and long-term stability*, 65 *SOC. INDICATORS RES.* 245 (2004).

⁵³ See Ulrich Schimmack, *The Structure of Subjective Well-Being*, in *THE SCIENCE OF SUBJECTIVE WELL-BEING*, *supra* note 27, at 115.

⁵⁴ See E. Sandvik et al., *Subjective Well-Being: The Convergence and Stability of Self-Report and Non-Self-Report Measures*, 61 *J. PERSONALITY* 317 (1993); Heidi Lepper, *Use of Other-Reports to Validate Subjective Well-Being Measures*, 44 *SOC. INDICATORS RES.* 367 (1998).

⁵⁵ Tiffany A. Ito & John T. Cacioppo, *The Psychophysiology of Utility Appraisals*, in *WELL-BEING*, *supra* note 19, at 479.

⁵⁶ *Id.*; T.G. Dinan, *Glucocorticoids and the Genesis of Depressive Illness: A Psychobiological Model*, 164 *BRIT. J. PSYCHIATRY* 365 (1994).

⁵⁷ See Ed Diener & Richard E. Lucas, *Personality and Subjective Well-Being*, in *WELL-BEING*, *supra* note 19, at 213, 214.

⁵⁸ See Sandvik, *supra* note 54.

they are also sensitive to changes in circumstance such that people who experience apparently negative events do indeed report lower levels of well-being (at least for a time).⁵⁹ This implies that people are capable of consistently reporting how experiences make them feel, and that their emotional responses generally exhibit predictable patterns following specific events.

4. Hedonic Psychology's Key Findings

Using the techniques discussed above, researchers have been able to study the kinds of things that make people happy, the intensity and duration of people's affective responses, and their ability to predict what will make them happy. Although some of their findings are relatively unsurprising, others are highly counterintuitive. This research, along with work on cognitive and emotional biases in decision-making, has challenged the economists' assumption that people regularly choose what will make them happy.

Hedonic psychology has consistently shown that well-being is based considerably less on individual life circumstances than had previously been thought.⁶⁰ For example, increases in wealth are only weakly correlated with feelings of positive affect,⁶¹ and people who become disabled often experience a noteworthy rebound in their happiness within a couple of years.⁶² Well-being's relative resilience in the face of these kinds of external circumstances is likely due to people's ability to adapt hedonically to life events.⁶³ Although hedonic adaptation's effects are substantial, studies show that people do a poor job of remembering and anticipating adaptation. Accordingly, they tend to be unsuccessful at predicting certain aspects of an event's hedonic impact.⁶⁴ Psychologists refer to these failures as

⁵⁹ See Lucas et al. *supra* note 44.

⁶⁰ See Kahneman, *DRM*, *supra* note 33, at 1778.

⁶¹ See *id.*

⁶² For a review, see Shane Frederick & George Loewenstein, *Hedonic Adaptation*, in *WELL-BEING*, *supra* note 19, at 312.

⁶³ *Id.*

⁶⁴ See Timothy D. Wilson & Daniel T. Gilbert, *Affective Forecasting: Knowing What to Want*, 14 *CURRENT DIRECTIONS IN PSYCHOL. SCI.* 131 (2005); Peter A. Ubel et al., *Disability and Sunshine: Can Hedonic Predictions Be Improved by Drawing Attention to Focusing Illusions or Emotional Adaptation?*, 11 *J. EXPERIMENTAL PSYCHOL.: APPLIED* 111, 111 (2005) ("One of the most commonly replicated 'happiness gaps' is that observed between the self-rated quality of life of people with

affective forecasting errors,⁶⁵ and they seem to exist both for rare occurrences and for mundane ones⁶⁶

In addition to the difficulties people face making decisions about which choices will make them most happy, their predictions are further handicapped by a variety of emotional and cognitive biases that affect judgment. For example, the decision-making context plays a considerable role in the choices that people make.⁶⁷ Their decisions are affected by their moods, situational factors, and the way their choices are framed.⁶⁸ Instead of being expert utility maximizers, in many cases people are at best boundedly rational. These findings, combined with the research on happiness and affective forecasting, call into question the assumption that people regularly choose the things that make them happy. The findings thus decouple happiness and preference-satisfaction.

* * *

In this Part, we have made the positive case for understanding welfare as subjective well-being, and we have analyzed the psychological tools available for measuring it. Although increasing welfare is not the only conceivable goal of legal policy, it is widely regarded as one of the most important of such goals. To the extent that states seek to increase welfare they should promote subjective well-being—the aggregate of subjectively experienced moment-by-moment affect. Although a number of potentially acceptable proxies for well-being exist, those that rely on momentary assessment of experienced happiness are conceptually closest and empirically most valid. Having made this initial case, in the Parts that follow we defend our conception of well-being from its strongest competitors.

health conditions and healthy people's estimates of what their quality of life would be if they had those conditions . . .").

⁶⁵ Wilson & Gilbert, *supra* note 64, at 131.

⁶⁶ See Peter Ayton et al., *Affective Forecasting: Why Can't People Predict Their Emotions?*, 13 THINKING & REASONING 62 (2007).

⁶⁷ See George Loewenstein et al., *Projection Bias in Predicting Future Utility*, 118 Q. J. ECON. 1209 (2003).

⁶⁸ See Christopher K. Hsee et al., *Hedonomics: Bridging Decision Research with Happiness Research*, 3 PERSP. ON PSYCHOL. SCI. 224, 231-37 (2008).

II. HAPPINESS, VIRTUE ETHICS, AND OBJECTIVE LISTS

Our thesis is that human well-being is defined by the aggregation of moment-by-moment positive affect throughout a lifetime. For something to benefit a person is for it to increase that aggregated affect—to make the person experience more positive feeling than she would otherwise have experienced.

Two features of our approach should be emphasized. First, well-being depends solely on how a person feels rather than on any other (e.g., more objective) consideration or fact. A person has well-being to the extent that she is happy, regardless of the objective conditions of her life. Second, well-being can be influenced only by those things that affect a person's experience of life. Anything that is outside this veil of experience and has no effects on it is irrelevant to the quality of a person's life.

The first feature means that someone who is poor but happy is better off than someone who is rich but unhappy. Even someone who is oppressed but happy has more well-being than someone who is free but unhappy. The second feature means that a person's happiness is unaffected by things she is unaware of, as long as they do not affect her experience of life. A happy person is better off than an unhappy one, even if her happiness is based on mistaken beliefs about her life. A spouse's secret infidelity does not affect one's well-being unless one learns of it or otherwise experiences it as part of one's own life (e.g., being treated differently by the spouse or others). We will discuss these examples in more detail in the final section of this Part.

To defend our conception of welfare, we will contrast it with the leading alternatives. This Part discusses two related categories of alternatives: objective-list (or "capabilities") approaches, and virtue ethics. The capabilities approach is attributable primarily to Amartya Sen and Martha Nussbaum, whereas virtue ethics revives the work of Aristotle and other ancient Greek philosophers. We consider each category in turn, then defend our theory against its most important criticisms.

A. Capabilities-Based Conceptions of Welfare

Martha Nussbaum and Amartya Sen have argued that a person's welfare is defined by whether the person possesses a particular set of capabilities. For example, someone who lives in a

society that recognizes the right of free speech is better off than is someone who lives in a society denying that freedom, all else being equal. For Nussbaum, well-being depends solely upon having the capabilities, regardless whether the person actually uses them. For Sen, well-being depends upon not just having the capabilities but also using them.

We reject both approaches as being insufficiently attentive to the subjective nature of well-being. Sen's view is particularly vulnerable to this criticism. Consider a person who prefers not to make use of her capabilities because she correctly believes that using them will make her miserable. Sen must defend the proposition that if she uses them and is miserable, then she is better off than if she does not use them and is happy. That is an objective judgment about her well-being: on Sen's account, what is good for her is disconnected from what she wants or how she feels.

The problem with this view is that well-being is inherently subjective, not objective. The miserable person who uses her capabilities cannot reasonably be deemed better off than the happy person who does not. It is not clear what the metaphysical basis for Sen's alternative objective judgment would be; and if the judgment relies upon intuition, it comes up short by that yardstick when pitted against our happiness-based conception of welfare. It grates strongly against standard intuitions to say that a person who constantly feels awful possesses great well-being because she happens to be engaged in activities that appear on a list made by others.

One might ask why such a person would choose freely to engage in such activities, but that choice is not hard to understand. Perhaps she feels compelled to do so by psychological factors such as a desire to please others or to fulfill a cultural conception of success. Or perhaps she believes incorrectly that those activities will make her happy. Regardless, the hypothesis is that if she resisted or freed herself from her internal reasons for choosing to use her capabilities, then she would be happier. Assuming this hypothesis to be true, we regard it as intuitively obvious that she would then be better off.

It might well be, of course, that using the listed capabilities would in fact make most people happy. But the test of Sen's theory versus ours is what happens when happiness and capabilities are disconnected—i.e., when someone is made less happy (even miserable) by using her capabilities. In such a case, does well-being follow happiness or the use of the capabilities? We see no reason that

someone's well-being could depend upon objective factors that are irrelevant to her personal experience of life or that affect her experience in an exclusively negative way. Such a view does not take seriously enough the point that an individual's well-being is *hers*. What is best for her cannot be determined independently of what she likes, of what brings her positive emotions like joy and contentment. What is best for her is bound up inextricably with her feelings and her experience of life. She, not the list-makers, lives her life; and her experience of it as positive or negative is the ultimate yardstick by which her welfare must be measured. A theory that denies these points cannot ultimately be squared with the considered understandings of well-being.

Our objection to Nussbaum's approach is similar, although we hasten to acknowledge that she insulates herself from some of the above problems by emphasizing the political nature of her prescriptions. Nussbaum wants the state to give people the opportunity to use the listed capabilities, and she is open to continuous reevaluation of the list's contents. Nevertheless, she has a similarly objective conception of welfare: the freedom and capacity to use the listed capabilities, whether or not one chooses to use them.

The problem with this approach is simply a more subtle, one-level-removed version of the problem with Sen's approach. Imagine a person who does not care at all about having these capabilities and whose life would be no different, in terms of what matters to her, if she had them or not. To be sure, Nussbaum is not imposing anything on that person; Nussbaum is not requiring the person to do anything. Yet Nussbaum is claiming that facts utterly irrelevant to the person nonetheless define that person's level of well-being.

How can that be? Why would someone benefit from a thing that does not affect her life at all, or that does not affect it positively in terms of her own experience of life? To view a miserable person with these capabilities as having greater well-being than a happy person without them is to privilege an outsider's conception of what is good for these individuals over the feelings and wishes of the individuals themselves. What claim can that outsider have to speak for these people, who judge their lives by a different metric?

A person's well-being is determined by her own experience, not by some objective assessment of the conditions under which that experience takes place. Those conditions matter only if they matter *to her*. Nussbaum's account runs contrary to that bedrock consideration.

B. *Nature-Fulfillment Conceptions of Welfare*

Although there is disagreement about the views of Aristotle and other ancient Greek philosophers, a group of current philosophers identify as neo-Aristotelians and endorse a view of welfare labeled virtue ethics. The central claim tends to be that a persons' well-being is defined by the extent to which she does well those activities that it is characteristically human to do. Such nature-fulfillment constitutes flourishing human behavior and, therefore, welfare.

Not much needs to be said about this view beyond our objections to the capabilities approach. Like that approach, nature-fulfillment is hamstrung by its inability to accord sufficient value to the subjective experience of life. Doing a characteristic activity well would probably make the person doing it feel good, but if it did not do so—if for example it made her miserable, and if she did not value it—then why would the activity nonetheless have increased her well-being?

Moreover, there is serious disagreement about the qualities characteristic of a human being and even about whether the concept of characteristic qualities may be applied accurately to human beings at all.⁶⁹ If there are such qualities, then some of them might not be ones that Aristotelians or anyone else would want to endorse as virtuous.

C. *Confronting the Hardest Cases*

Virtue ethicists and capabilities theorists generally reject a purely hedonic account of welfare by citing hypotheticals that ostensibly reveal the weaknesses of that account. In this section, we will confront directly the most difficult ones.

Here are three such examples. In each case, the question is whether *A* or *B* has more welfare.

Example 1

A's spouse is cheating on her, but she is unaware of it and is happy in her marriage. She would be miserable if she knew the truth, but she never learns of it and is never affected by it at all.

B's spouse is faithful, and *B* assesses her marriage accurately. But she is less happy than is *A*.⁷⁰

Example 2

A lives in poverty in a society that discriminates against her based on her sex. But she has adapted to the poverty and discrimination and feels quite happy.⁷¹

B lives a life of comfort, activity, and commitment to justice, all in a society that gives her full political and social rights and nourishes her capabilities. But she feels less happy than does *A* throughout her life.

Example 3

A feels happy, but only because she has chosen to hook herself up to an experience machine. She is having (unbeknownst to her conscious mind) no actual experiences in the real world.

B feels less happy but is living an ordinary life in the world, hooked up to no machine.

In all three examples, we hold that *A* has more welfare than does *B*.

Consider Example 1. Anyone who deems *B* to be better off than *A* must explain how a person's well-being can be affected by things wholly outside of her veil of experience. As we have argued, a person's life is her sensory experience of the world. Anything that has no effect on that experience does not influence her life and therefore does not influence her well-being. As we will discuss in Part III, an animal-lover is not made better off by the survival of a squirrel in a far-off land if the animal-lover never learns of that survival and is never affected by it. Similarly, someone is not made better or worse off by events that occur after her death, no matter how she would have felt about those events had she known about them while she was alive. Well-being concerns one's experience of life, and something must affect that experience in order to affect well-being.

⁷⁰ See Matthew D. Adler & Eric A. Posner, *Happiness Research and Cost-Benefit Analysis*, 37 J. LEGAL STUD. (forthcoming 2009) (manuscript at 6); see also ADLER & POSNER, *supra* note 10, at 30 (providing a related example).

⁷¹ See Nussbaum, *supra* note 69 (manuscript at 20-21).

If one's initial intuition is that *B* might be better off than *A*, what accounts for that? We suspect that the intuition comes from considerations ruled out by the hypothetical: e.g., people who know the truth (including *A*'s cheating spouse) would treat *A* differently as a result of knowing, and *A* would be affected negatively by that different treatment. These hypotheticals can create problems for our intuitions because they ask us to accept analytically clean frameworks that are at odds with real experience—for example, that *A* will never learn the truth and will not be indirectly affected by it in ways that make her less happy than *B*. Such assurances do not exist in real life, but we believe that if the example's rules are taken seriously, then it makes more sense to say that *A* is better off.

Example 1 thus pits happiness against the truth. The truth may have some sort of objective moral value, but if it has *value that counts as part of welfare*, then what would that value be? We believe it would be the sort of thing ruled out by the hypothetical: When your happiness depends on a lie of which you are unaware, then that happiness is more vulnerable to being undermined than if it were based on the truth. You might learn the truth, or else the truth might interfere negatively with your life in a less direct way. So we have a valid intuitive attachment to the truth, even as regards welfare—but that attachment makes sense only insofar as truth-based happiness is, all else equal, more reliable in the end for maximizing one's overall happiness than is falsehood-based happiness. Example 1, however, requires us to take all considerations like these out of the equation and to assume that *A* will not be harmed (in terms of a reduction in her subjective well-being)⁷² by her unawareness. If we force ourselves to believe that assumption, then the view that happiness is the sole component of welfare retains its intuitive appeal.

Example 2 involves related concerns. If we try to imagine ourselves as *A* or *B*, it seems that we would be much happier as *B*. But of course the point of the example is to stipulate that *A* is happier, so as to test the contention that happiness constitutes welfare. Why might *A* be happier? Maybe *A* belongs to a tight-knit social group of friends, extended family, or fellow religious worshippers, whereas *B* has fewer if any close social ties. If we start to flesh out the reasons that *A* might be happier than *B* (i.e., might feel better and have more subjective well-being) then our sense that *B*'s life seems better starts to erode.

⁷² We address the possibility of harm to one's preferences in Part III.

The more we come to believe that *A* is actually happier, the clearer it becomes that *A* has a better life.

Of course, a critic could argue that this sort of fleshing out involves attributing to *A* but not to *B* aspects of life that are valuable in non-hedonic terms—that we care about social ties not because they make us feel good but because they are part of (for example) human flourishing, or so the argument would go. It is hard to sort out answers to such challenges because there is overlap between that which is valued by other theories (e.g., virtue ethics or the capabilities approach) and that which makes us feel good, and it can be difficult to know which one is driving our positive assessment of the thing in question.

To address this difficulty, let us take another cut at the issue by considering whether one given individual, *C*, would have more welfare if she lived in an oppressive society but felt happier or if she lived in a free and just society but felt less happy. In the oppressive society, she could not go to school beyond age twelve or play a role in the workforce. In the free society, school is not only permitted but required through age eighteen, and every opportunity is available. Assume that *C* doesn't enjoy school; it involves a lot of work and pressure, and she is not excited by or interested in the knowledge being bestowed or in the process of acquiring it. Assume also that *C* doesn't enjoy working, even when doing things that are thought-provoking and socially valuable. Work feels like a grind, with pressure and deadlines. Although in the free society *C* was able to choose a different career and might (or might not) have been able to find one that would have given her greater enjoyment, the countless available options kept her from being funneled (as she is in the oppressive society) into a life of laziness and low stress that she likes much better. Add in the fact that in the oppressive society, *C* never even realizes she is being oppressed because, among other things, she likes all the things she ends up doing.

We assume that the free society is normatively preferable, all things considered, but that is not the question. The question is whether *C* has more welfare in the oppressive society (where she lives a contented, lazy life) or in the free society (where she lives a stressful, active life). The answer is that she has more welfare in the oppressive society. The sedentary life there is better *for her* than is the active alternative. Welfare is a concept concerned exclusively with *her* well-being. To insist that her life in the free society has greater welfare

would be to fail to give full credit to her individuality. What makes her happy is to be relatively inactive, and that fact is credited fully by a conception of welfare that cares only about what makes her happy.

In this conception that we defend, there is nothing wrong with being inactive, at least as far as one's own welfare is concerned, so long as being inactive makes one happy. Those who take a different view impose some sort of objective code upon individuals who do not approach life the same way. More to the point, such an objectivist view would claim that the *welfare* of these individuals is better served by what the view's proponents value than by what the individuals value or enjoy. According to the objectivist view, not only don't the individuals know what's good for them, but their view of what's good for themselves doesn't determine what's good for them—no matter how considered or accurate (in terms of happiness) a view it is. Example 2, which on its face seems so thorny for our mental-state theory, thus lays bare the decisive weakness of the alternative conception of welfare.⁷³

This brings us finally to Example 3, the experience machine. Could someone sitting motionless with her head attached to electrodes really have greater welfare than someone whose experiences are real? The answer is yes, even though there are all sorts of reasons for people not to want to attach themselves to the machine. For example, they

⁷³ It should go without saying that we are not defending repressive societies. When Nussbaum raises a point that relates to Example 2, her argument runs as follows:

[P]eople who were not brought up to think of themselves as equal citizens with a full range of citizens' rights will not report dissatisfaction at the absence of equality—until a protest movement galvanizes awareness. . . . So deferring to the subjective experience of pleasure or satisfaction will often bias the social inquiry in the direction of an unjust status quo.

Nussbaum, *supra* note 69 (manuscript at 20-21). This sort of argument is compatible with our approach. We do not argue for crafting social policy that is based solely on maximization of subjective well-being. Moreover, even a happiness maximizer might well take the view that in the long run, happiness is served by the sort of political system that Nussbaum advocates. This sort of view applies as well to Example 1, in which *A*'s happiness is precarious and constantly endangered by the threat of learning the truth or of being affected negatively by the actions of others who know the truth. And apart from those concerns, there are welfare-independent arguments to be made in favor of policies that promote lives like *B* rather than *A* in all three examples.

might not want to forego the opportunity to use their lives to improve the lives of others; or they might not be convinced the machine will actually work; or they might fear that while on the machine, they will be vulnerable to harm from those in the real world. When we ask whether someone attached to the machine has greater welfare, we must look behind whatever visceral aversion to the machine we might have and assess (i) whether that aversion relates to welfare and (ii) whether the aversion springs from rejecting the rules of the hypothetical example.

We experience the world through our senses, and in that respect the machine life is no less real than is ordinary life. When we picture the machine life, we get a mental image of what we look like to someone who is not on the machine (i.e., we look like someone sitting alone, plugged into electrodes). But life within the world created by the machine would look like ordinary life, complete with social ties, soaring natural beauty, and whatever else the individual derives happiness from. To the extent that negative feelings are necessary to maximize overall happiness,⁷⁴ those negative feelings would be present too. Absent would be any pain or suffering (much less early death) that is not necessary for overall happiness.⁷⁵ In other words, a life on the machine is a life that would be self-evidently wonderful for the person living it if she were living it in the real world. The question is whether it matters that she is living it on the machine.

Our answer is that it matters, but not in terms of *her welfare*. Once she is attached to the machine, her welfare is unaffected by the fact of being attached to it. By hypothesis, she has no awareness that her machine-life is anything other than real. Compare two parallel lives, one in which a person eschews the machine and one in which she attaches herself to it, say at age 20. In the machine life she is enormously happy until she dies at age 100. What if she were to die tragically in the alternative real life at 21? Would the real life have been one in which she had greater welfare, one that was better *for her*, than the machine-life? Absolutely not. And the answer does not change if in the real life she lived until 25, or 45, or 100 and was

⁷⁴ For example, it might be the case that positive feelings are more intense if a person has some negative feelings to contrast them with.

⁷⁵ *Cf. id.* (manuscript at 29) (“Public policy should also focus on the mitigation of the sort of pain that is not an enrichment of the soul or a deepening of self-knowledge, and there is a lot of pain that is not conducive to anything good.”).

relatively unhappy. Feeling bad or being unhappy is worse for a person than is feeling good or being happy.

D. Responding to Nussbaum's Recent Discussion of the Hedonic Conception of Welfare

Martha Nussbaum recently published a sustained critique of the hedonic conception of welfare, in the context of a symposium about the new findings of hedonic psychology. [CITE] We address her arguments in the sections that follow..

1. Measuring Pleasure and Life Satisfaction

If we are right that welfare is of value and that subjective well-being constitutes welfare, then it is important to refine our tools for measuring subjective well-being. Nussbaum contributes to this project by noting several concerns: that the concept of “pleasure” encompasses multiple feelings or sensations that differ qualitatively from one another,⁷⁶ that aggregating experiences into one unitary measure of life satisfaction may be difficult or impossible,⁷⁷ and that there may be a problematic ambiguity in the question about life satisfaction.⁷⁸

We regard the first issue, the nature of pleasure, to represent primarily a physiological question. Could it not someday be answered by comparing the neurological processes that occur when someone eats a steak to those that occur when she listens to Mahler? Research supports the view that different sorts of good feelings share a common thread that makes us like having those feelings and that distinguishes them from negative feelings.⁷⁹

Even if it were true that pleasure is a hopelessly messy and complicated phenomenon, comprising innumerable different shades of feeling and including even certain sorts of painful emotions, that would not invalidate the project of measuring subjective well-being and trying to promote it. There will always be more to learn about happiness for scholars of biology, social science, and philosophy, and

⁷⁶ *Id.* (manuscript at 2-6).

⁷⁷ *Id.* (manuscript at 6).

⁷⁸ *Id.* (manuscript at 6-8).

⁷⁹ See SCHULKIN, *supra* note 20, at 14; Kahneman, *Objective Happiness*, *supra* note 19, at 8.

the added knowledge will be most helpful in tailoring policies that promote happiness. It does not follow, though, that happiness-promoting policies cannot usefully be pursued until every possible wrinkle has been sorted out—any more than it would make sense to delay the establishment of governments before we had a full understanding of what the best system would entail.⁸⁰

Similarly, the potential difficulties in aggregation are cause for care and attention but are hardly fatal to our project. According to Nussbaum, survey questions that ask people to rate their life satisfaction “bully” subjects into aggregating their experiences unnaturally: “There is no opportunity for them to answer something plausible, such as ‘Well, my health is good, and my work is going well, but I am very upset about the Iraq war, and one of my friends is very ill.’”⁸¹ We agree that many different sorts of considerations can comprise how one feels about one’s life. And assigning a number to one’s life satisfaction is a blunt instrument that obscures this complexity.

That said, much of life revolves around these sorts of simplifications to the impossibly complex nature of reality, simplifications that are nevertheless of enormous practical value. Virtually every decision we make involves some sort of rough-and-ready calculation that ignores many relevant considerations. Even Nussbaum’s own example of a “plausible” answer abounds with aggregations that simplify and distort reality. The statement, “My work is going well,” glosses over the virtually infinite factors that could influence one’s assessment of that large part of life, and yet (as Nussbaum affirms) it is a plausible statement because people engage in such aggregating glosses all of the time. A negative interaction with a co-worker, for example, is understandably swept under the rug by that statement because the interaction is deemed insufficiently important to change the overall assessment.

We cannot rule out the possibility that people feel bullied to aggregate incommensurables when they are asked the question about their life satisfaction. But could it not instead be the case that denying the possibility of such aggregating, even in the face of people’s ability and willingness to do it (and familiarity with doing it in all aspects of

⁸⁰ *But cf.* Nussbaum, *supra* note 69 (manuscript at 30) (“[A]t present [the appeal to subjective well-being] is so riddled with conception confusion and normative naïveté that we had better pause and sort things out before going any further.”).

⁸¹ *Id.* (manuscript at 6).

life), is a sort of bullying in its own right? Nussbaum might view this sort of aggregating as absurd and nonsensical, but that is not necessarily a view shared by those who answer the survey questions. Their choice to give an answer⁸² is admittedly not decisive evidence that they view the question as legitimate, but it is at least a piece of evidence in favor of that conclusion, as contrasted with a complete absence of evidence to the contrary.⁸³

2. Bad Pleasures

Nussbaum notes that “pleasure is simply not normatively reliable.”⁸⁴ For example, “Rich people have pleasure in being ever richer, and lording it over others, but this hardly shows that redistributive taxation is incorrect. Racists have pleasure in their racism, sexists in their sexism.”⁸⁵ She goes on to point out that certain economists have constrained their welfarism by excluding from the welfare calculus these sorts of pleasures.⁸⁶

We agree, of course, that redistributive taxation is not shown to be incorrect by the point that rich people take pleasure in being ever richer. It is necessary, however, to keep separate these two questions: (a) whether redistributive taxation improves the life of an individual rich person, and (b) whether such taxation is a good policy for society as a whole. The answer to (b) could be yes even if the answer to (a) were no. One reason for this possible divergence is that redistributive taxation may well increase the pleasure of the poor; indeed, due to decreasing marginal utility and other considerations, such taxation

⁸² And indeed almost everyone surveyed chooses to respond. Response rates for happiness questions on social surveys often exceed 95%, substantially higher than (for example) those for reported income. See, e.g., Bernard van Praag & Barbara E. Baarsma, *Using Happiness Surveys to Value Intangibles: The Case of Airport Noise*, 115 *ECON. J.* 224 (2005).

⁸³ Nussbaum’s further point—that the question about life satisfaction contains an ambiguity—could be addressed by splitting it into two or more different questions. We leave the methodology to the psychologists, but as a rough example, one question could ask how happy the subject is with her life, whereas another could ask how she would judge or evaluate her life. In any event, we favor moment-to-moment measures of happiness over questions about life satisfaction, as discussed in Parts I and IV.

⁸⁴ *Id.* (manuscript at 17).

⁸⁵ *Id.*

⁸⁶ *Id.* Adler and Posner are among this group of welfarists, as we discuss at length in Part III.

may well benefit the poor more than it harms the rich. Another reason is that there could be moral considerations independent of welfare that support such taxation. Moreover, even the answer to (a) could be yes: the rich might not, on the whole, actually benefit from the absence of redistribution.

But if indeed a rich person were made happier on the whole by the absence of redistributive taxation, then that rich person's welfare would be increased by such an absence. It is likely that this sort of increase in welfare would be outweighed (from the perspective of policymaking) by other considerations, including the effect on the welfare of others. But it would be inaccurate to characterize the negative effects of low taxation as eliminating the welfare enhancement that such a policy bestows on the rich person. If that person is made happier by the policy, then she is made better off by it. *Her* well-being is conceptually distinct from the well-being of others (if only because others' well-being, by hypothesis, has no effect on her happiness in this example) or from moral considerations that are independent of welfare.

The same analysis applies to racists, sexists, and homophobes. Nussbaum writes that "[t]o some people, the distress caused by the presence of a homosexual couple next door is just as acute as the distress caused by the presence of a running sewer next door."⁸⁷ We cannot stress strongly enough that we oppose policies catering to these sorts of discriminatory preferences. As a starting point, we are not even certain that those who harbor those preferences really are made happier by the bitterness and intolerance embodied therein. But even if those people were made happier, we are convinced that their happiness is outweighed by the reduction in happiness that discriminatory policies impose on others. And even if *that* were not true, moral arguments unrelated to welfare could still be made against such policies. As with the point about taxation, the best policy for society may well be one that reduces the welfare of some individuals within it. Notwithstanding all of these caveats, though, it remains true that if a homophobe really were made happier on the whole by a policy banning a homosexual couple from living next door, then that homophobe's welfare would be increased by such a policy. At least as a matter of analytical truth, racism can increase a racist's welfare. The

⁸⁷ *Id.* (manuscript at 29).

project of opposing discrimination does not depend on mischaracterizing welfare.⁸⁸

3. Good Pains

Nussbaum also emphasizes that “some valuable activities are not accompanied by pleasure”⁸⁹ and that the absence of negative emotion can lead people to be insensitive and even aggressive toward others.⁹⁰ These claims are compatible with ours. An activity like “fac[ing] death in battle for the sake of a noble end”⁹¹ might be valuable notwithstanding its failure to increase the welfare of the actor. Its value could come from increasing others’ welfare or perhaps from some other source. And if it is true that a shortage of negative emotion can make people insensitive or aggressive, then that could count in favor of a degree of negative emotion. Insensitivity or aggressiveness almost certainly will decrease others’ welfare (we suspect they will also result in decreased welfare for the actor herself, directly or indirectly) and may be morally problematic for independent reasons as well.⁹²

Our argument is not that we should root out all unpleasant emotion, regardless of the consequences. It is simply that unpleasant emotion, all else being equal, constitutes a decrease in happiness (and therefore in welfare) for the person experiencing the emotion. Such unpleasantness might be necessary to achieve all sorts of ends, including even the maximization of long-term happiness for the individual in question. But when we bracket those considerations and stipulate that the emotion really does make the person feel worse

⁸⁸ We note that this may not be a point of disagreement with Nussbaum. She argues, as do we, that honoring discriminatory preferences is undesirable. And she notes that Mill and Harsanyi do not count such preferences as welfare. *Id.* (manuscript at 17). But she herself does not commit to the view that welfare excludes those preferences.

⁸⁹ *Id.* (manuscript at 17-18).

⁹⁰ *Id.* (manuscript at 17-20).

⁹¹ *Id.* (manuscript at 18).

⁹² Similarly, negative emotions like fear can have value in that they may well increase the ultimate happiness of the person who has them, as well as that of other people (e.g., by promoting behavior that avoids danger and prolongs life). *Cf. id.* (manuscript at 14).

overall, we are left with the fact that the unpleasantness is bad for the person who experiences it.⁹³

4. The Relationship Between Welfare and Living a Good Life

Just as risking death for a noble end might be valuable even though it decreases the welfare of the one who does it, choosing a risky or difficult career path might be valuable. Nussbaum applauds those who make such sacrifices,⁹⁴ and so do we. But a difference between our view and hers emerges if Nussbaum is taken to characterize such sacrifice as necessarily welfare-enhancing for the risk-taker: “Public policy should make room for, and honor, commitments that are in their very nature fraught with risk, pain, and difficulty, especially commitments to fighting for social justice, as not optional but mandatory parts . . . of the good life of any human being.”⁹⁵

Our take on this statement is probably clear from what has gone before. In no way do we deny the value of altruism: it typically increases others’ welfare and may also have welfare-unrelated moral worth. Moreover, we think that other-regarding behavior often increases the happiness of the person who engages in it.⁹⁶ But altruistic behavior does not increase the welfare of the altruist unless it makes the altruist happier (whether it be directly or indirectly, in the short term or the long term). We take no position on what constitutes a “good life” in some objective sense, but if altruistic acts make a given person feel worse overall, then those acts detract from her welfare. Others may gain, but she loses. In terms of individual well-being, accepting pain and difficulty in the service of justice is not a mandatory part of the good life of every human being.

⁹³ Although much is often made of the benefits associated with painful or unpleasant experiences, empirical studies consistently show that experiencing positive affect improves people’s mental and physical health, enhances creativity, and makes them more open to new experiences. See DIENER & BISWAS-DIENER, *supra* note 80, at 27; Barbara L. Frederickson, *Promoting Positive Affect*, in THE SCIENCE OF SUBJECTIVE WELL-BEING, *supra* note 27, at 449, 450.

⁹⁴ *Id.* (manuscript at 21-24).

⁹⁵ *Id.* (manuscript at 24).

⁹⁶ *E.g.*, MARTIN E. P. SELIGMAN, AUTHENTIC HAPPINESS: USING THE NEW POSITIVE PSYCHOLOGY TO REALIZE YOUR POTENTIAL FOR LASTING FULFILLMENT (2002).

Like altruism, other acts valued by Nussbaum are unrelated to welfare unless they increase happiness. Nussbaum cites widespread agreement that

a life with feeling alone and no action is impoverished. . . . [A] person who sits around doing nothing, or even just counting blades of grass, or a person plugged into Robert Nozick's "experience machine" that generates pleasant experiences, is not living a life of the sort we should try to promote, however pleased that person feels.⁹⁷

Assume for the sake of argument that two people both genuinely enjoy lazing around and are made genuinely displeased by being active. One of them, *A*, chooses to spend her life lazing; whereas the other, *B*, chooses to spend it in active pursuits that Nussbaum finds admirable. *A* has a happier life—a life of greater welfare—than *B*. If Nussbaum would deny this, then her conception of welfare is insufficiently attentive to the differences among individuals.⁹⁸

5. Feeling or Judgment?

A virtue ethicist, for example, might argue that although virtuous activity need not create pleasurable feeling, it will be *judged* as valuable by the person who engages in it. Nussbaum emphasizes this distinction between feeling and judgment in the context of critiquing the psychological surveys used to measure subjective well-being.⁹⁹ It is worth taking a moment to address the possibility that subjective judgment of the value of an activity or of one's life constitutes happiness.

In large measure, we consider such a possibility to be consistent with our mental-state approach. If a skier deems her skiing to be a valuable activity, that judgment is itself an internal positive feeling. Making judgments about the value of one's life is a cognitive act imbued with an emotional state in the same way that meditation,

⁹⁷ Nussbaum, *supra* note 69 (manuscript at 21).

⁹⁸ It could be argued that activity tends to give people more positive feeling than does inactivity, but this is simply an empirical question on which we would be willing to accept whatever credible evidence emerges. See Lyubomirsky et al., *supra* note 80, at 803.

⁹⁹ *Id.* (manuscript at 6-8).

philosophizing, and remembering are. When people judge their own acts to be good, they are made happy by that judgment—according to our definition of happiness. It makes a person feel good when she decides that she is doing the right thing or living the right way.

Our only caveat is that such judgment is only one type of good feeling and therefore only one way in which to be happy. Imagine a person who works during the day to stop violations of civil rights, then spends the night playing video games. If he judges only the work to be valuable but enjoys the games notwithstanding his intellectual judgment that they are devoid of value, then he derives happiness both from the positive judgment of the work and from the enjoyment of the games.

* * *

The qualities and behaviors valued by virtue ethicists and capabilities theorists—e.g., courage, reflection, temperance, commitment to justice, and willingness to sacrifice for others—are widely regarded as positive attributes. But why do we view them as positive? The reason might be moral and deontological: wholly separate from considerations of welfare. The reason might also involve the fact that when one person exhibits those qualities, she often increases the welfare of others. Finally, the reason might include the idea that those qualities can make the person who possesses them happier.

All of those reasons may be important, but only the last one relates to the welfare of the individual possessing the traits. To the extent that objectivist theories offer accounts of well-being, they conflate an individual's well-being with other values. Our mental-state account, by contrast, focuses on what well-being really is—positive sensory experience of the world. If an individual benefits from being courageous, she benefits in that her courage makes her feel better than she would have felt otherwise. Subjective well-being captures our understanding of the concept of welfare far better than does an objective account.

III. SUBJECTIVE WELL-BEING AS LAUNDERED PREFERENCES

Most scholars who would not define welfare as an active life of human flourishing would instead define it as an individual's success in satisfying her preferences. This preference-based theory of welfare has long held sway among economists and recently received its most robust theoretical defense from Matthew Adler and Eric Posner. In this Part we analyze the arguments typically made by adherents of the preference-based theory against hedonic conceptions of well-being and illustrate that the former are unavailing. We then demonstrate that Adler and Posner's refined conception of preferences ultimately collapses into our subjective theory of well-being. Indeed, the two are one and the same.

A. *A Preference-Based Theory of Welfare*

The leading theory of welfare, to which economists of various stripes have long subscribed, locates welfare within an individual's set of preferences. Imagine a person P who has a choice between outcomes (or "states") O_1 and O_2 . An individual has greater welfare in state O_2 than in state O_1 if and only if she actually prefers O_2 to O_1 . Put another way, an individual's welfare increases as she is able to satisfy her preferences to move from state O_n to state O_{n+1} ; as the individual is able to satisfy more and more of her preferences and move to even more desirable states of being, her welfare increases accordingly.

1. Orthodox Welfarism

In classical economic terms, the fact that an individual prefers O_2 to O_1 is both a necessary and sufficient condition for the individual to have greater welfare in state O_2 .¹⁰⁰ On the standard economic model, preferences are the alpha and omega of welfare. However, this straightforward view of preferences-as-welfare has received trenchant

¹⁰⁰ ADLER & POSNER, NEW FOUNDATIONS, *supra* note 10, at 34; Matthew D. Adler & Eric A. Posner, *Rethinking Cost-Benefit Analysis*, 109 YALE L. J. 165, 191 (1999) ("Modern economists hold that utility refers to the extent to which a person satisfies his or her (unrestricted) preferences."); J.R. Hicks, *The Foundations of Welfare Economics*, 49 ECON. J. 696, 698 (1939) ("We assume each individual to have a certain scale of preferences, and to regulate his activities in such a way as best to satisfy those preferences.").

criticism from philosophers and some economists,¹⁰¹ who make two principal objections. First, cognitive errors or a lack of information can lead someone to choose O_2 over O_1 even though, if she experienced each state, she would actually prefer O_1 .¹⁰² And second, individuals can hold preferences that are entirely remote from their own interactions with the world—preferences that, if satisfied, will not benefit the preference holder in any way because she will not even know they have been satisfied.¹⁰³

We take it to be clear that the first objection shows the superiority of the mental-state approach over orthodox welfarism. Suppose that Sally's parents surprise her by bringing home ice cream and that Sally hopes the flavor will be chocolate. Chocolate is her preference because she has forgotten that she actually enjoys the taste of vanilla more. Is she better off in O_1 , where her parents bring vanilla and she enjoys it more, or in O_2 , where they bring chocolate and she enjoys it less? We think it evident that she is better off in O_1 .¹⁰⁴

It would be possible to craft a preference-based view that conceded this point while still denying the validity of the second objection. On such a view, welfare would be defined by the satisfaction of preferences that either increased subjective well-being or had no effect on subjective well-being. But for the reasons that we articulate throughout this Article, the pure mental-state approach better captures what is commonly meant by well-being than does that hybrid preference approach. If Sally were asked whether she would prefer O_1 (a state of things in which there would be peace on earth in the year 2200) or O_2 (in which there would be war in 2200), she might well choose O_1 , all else being equal. If Sally dies in 2015, does it increase her welfare if in fact there is peace in 2200? We think that it does

¹⁰¹ Useful treatments include DANIEL M. HAUSMAN & MICHAEL S. MCPHERSON, *ECONOMIC ANALYSIS AND MORAL PHILOSOPHY* (1996); L.W. SUMNER, *WELFARE, HAPPINESS, AND ETHICS* 1996; Tyler Cowen, *The Scope and Limits of Preference Sovereignty*, 9 *ECON. & PHIL.* 253 (1993).

¹⁰² See ADLER & POSNER, *NEW FOUNDATIONS*, *supra* note 10, at 33 (“[I]t seems quite plausible that people can prefer states that do not improve their welfare because their preferences are evil, ignorant, adaptive, or otherwise misshapen.”).

¹⁰³ *Id.* at 34.

¹⁰⁴ The only advantage of O_2 is that she might be made happy merely by seeing that chocolate was brought home (and disappointed by seeing vanilla). This sort of advantage is counted by the mental-state account but not by the preference-based account.

not.¹⁰⁵ The same could be said for states of the world that accord with Sally's preferences while she is alive but that she is unaware of.¹⁰⁶

We will give no more attention to the orthodox approach because it has no means, in our view, to defend itself against such objections. We turn our attention for the rest of this Part, therefore, to a more sophisticated version of preference-based welfarism.

2. Adler and Posner's Refined Preference-Based Welfarism

To overcome the two foregoing objections to orthodox welfarism, Matthew Adler and Eric Posner have designed a more refined preference-based account of welfare. In response to the first objection, they classify "evil, ignorant, adaptive, or otherwise misshapen" preferences (which may be based upon imperfect information, cognitive biases, or simply sadistic tendencies) as *nonideal*, and they propose to launder them—to remove them from the welfare calculus or correct the inaccurate information upon which they are based.¹⁰⁷

Adler and Posner's treatment of the second objection—the possibility of "remote" preferences that do not impact the preference-holder—is somewhat more involved. They provide a number of illustrative examples, one of which concerns the endangered Sri Lankan squirrel and an environmentally conscious American named Sheila.¹⁰⁸ Imagine that the squirrel is teetering on the brink of extinction. Sheila may well prefer the state of the world in which the squirrel does not become extinct; in the abstract, what environmentally conscious person would not? But if she never visits Sri Lanka, never studies the squirrel, never sees it in captivity, and—this point is crucial—never learns that the squirrel has survived, it is difficult to see how the squirrel's continued existence increases her own welfare. Adler and Posner would launder these preferences from the welfare calculus as insufficiently self-interested, in that they do not appear to benefit the preference holder directly.¹⁰⁹ The result is a set of

¹⁰⁵ This is a widely shared intuition among economists. ADLER & POSNER, NEW FOUNDATIONS, *supra* note 10, at 35; *see also* SUMNER, *supra* note 127, at 126-27.

¹⁰⁶ This point receives extensive treatment in the next subsection in the form of the Sri Lankan squirrel example.

¹⁰⁷ Adler & Posner, *Happiness Research*, *supra* note 112 (manuscript at 3).

¹⁰⁸ ADLER & POSNER, NEW FOUNDATIONS, *supra* note 10, at 34.

¹⁰⁹ *Id.* at 36.

necessary conditions for increases in human welfare: the individual must prefer state O_2 to state O_1 ; her preference must be idealized, in the sense of being based upon full information, not subject to cognitive biases, and not “evil”; and the preference must be self-interested, such that its fulfillment will actually benefit the holder directly.

We agree that conventional preference-based accounts of welfare are flawed, and we believe that Adler and Posner’s theoretical modifications—the laundering of non-ideal or non-self-interested preferences—are indeed necessary if the preference-based account is to gain any purchase. But we believe that Adler and Posner’s preference-based account of welfare proves both more and less than they claim. The best available theory instead defines human welfare as subjective well-being.

B. *The Preference-Based Case Against Subjective Well-Being*

Adler and Posner’s case against a subjective well-being account of welfare is primarily a negative one. They acknowledge that subjective well-being forms a significant part, and perhaps even the predominant share, of individual welfare.¹¹⁰ After all, individuals undoubtedly gauge their welfare to a substantial degree by their own happiness, and presumably a large proportion of the preferences that people seek to satisfy are designed to increase happiness and subjective satisfaction.¹¹¹ Nevertheless, Adler and Posner argue that there must be more to welfare than happiness. They offer a number of arguments based upon classic philosophical thought experiments, many of which take the following form: Adler and Posner posit two people with subjectively equivalent mental states and argue that one of those two people must have greater welfare than the other based upon some objective consideration external to the person’s state of mind. (Their most prominent example is Nozick’s “experience machine.”¹¹²) Accordingly, they conclude, welfare must have components beyond

¹¹⁰ Adler & Posner, *Happiness Research*, *supra* note 112 (manuscript at 2).

¹¹¹ Cf. Kahneman & Thaler, *supra* note 36, at 222 (noting that although people typically attempt to maximize their subjective well-being, they often fail to accurately predict future hedonic effects); Gary S. Becker, *Nobel Lecture: The Economic Way of Looking at Behavior*, 101 J. POL. ECON. 385 (1993).

¹¹² ADLER & POSNER, NEW FOUNDATIONS, *supra* note 10, at 30-31; *see also* Part II.A.1, *supra*.

purely subjective happiness. It is through this opening that Adler and Posner drive their preference-based theory.

Because these arguments against subjective well-being are drawn primarily from objectivist accounts of welfare, we have already considered and rejected most of them in the previous section.¹¹³ Nonetheless, a few of Adler and Posner's arguments warrant extended discussion here. The first is the case of the Deceived Scholar.

Adler and Posner imagine a person who wishes to achieve a reputation as a great scholar and to be treated as one by friends and colleagues. In state O_2 that person is indeed a scholar of great rank and esteem; in state O_1 that person is the subject of a massive trick, an academic Truman Show, in which his colleagues and friends lead him to believe that he is a great scholar while secretly harboring the knowledge that his scholarship is second-rate.¹¹⁴ The scholar's subjective mental states are equivalent in O_1 and O_2 , and yet surely, Adler and Posner argue, his welfare must be greater in O_2 , where his colleagues' feelings are genuine.

This is the virtue ethicist's "Example 1" (the cuckolded husband) in variant form. Again, the example has undeniable intuitive force, but it has such force primarily because of our tendency to disbelieve its hypothetical terms. We cannot bring ourselves to accept that the scholar's subjective experience is actually the same in O_1 as it is in O_2 . He must occasionally catch his colleagues snickering behind his back and wonder what has caused them to laugh; his papers must be rejected by leading journals or top conferences more than someone in his position would expect, forcing him to confront his own creeping self-doubt; or at minimum his interactions with his "adoring" colleagues must somehow lack the authenticity of true warmth, as opposed to concocted platitudes. Our intuition simply recoils at the notion that the Deceived Scholar could be so perfectly deceived.

But what if he is? What if, in his own mind, he is living the life of a truly esteemed scholar in all of its particulars? Moreover, what if an outside observer, privy only to the Deceived Scholar's interactions with the world (and not the private information held by his contemptuous colleagues), were unable to distinguish his life from the life of a genuine luminary? The Deceived Scholar might be lacking in other respects, but how could it be said that his *welfare* is any lower than that of the true academic star? After all, by hypothesis their lives

¹¹³ See Part II.A.1, *supra*.

¹¹⁴ ADLER & POSNER, NEW FOUNDATIONS, *supra* note 10, at 30.

are indistinguishable; he is equally well off in every imaginable respect in both situations. No welfare-based grounds exist for choosing between the two.

Let us put this in Adler and Posner's own terms. The scholar is no different from Sheila, the environmentalist concerned about the Sri Lankan squirrel. Sheila would prefer that the squirrel continue to exist, just as any scholar, given the choice, would prefer a legitimately first-rate reputation. Adler and Posner hold that Sheila's welfare would be unaffected if the squirrel were to become extinct without it ever coming to Sheila's attention or affecting her life, because her preference is not self-interested. The squirrel's existence or lack thereof is simply an objective fact in the world that does not interact with Sheila and therefore cannot affect her well-being, on Adler and Posner's own view. So too for the scholar: if his cognitive and emotional lives in states O_1 and O_2 are identical, then his preference for O_2 cannot be self-interested. Given the parameters of the example, his reputation is simply an objective fact in the world that impacts his life not a whit. The examples of Sheila and the scholar show that people can have preferences for things that do not affect their lives and thus do not affect their welfare. Such preferences could be the result of an interest in others' welfare, or welfare-unrelated moral considerations, or a mistaken belief that the preferred thing will increase the person's own welfare. Either way, the example of Sheila is identical to that of the deceived scholar. Adler and Posner's own position refutes their argument against subjective well-being.

Adler and Posner's other examples are no more availing. They write that an individual "may prefer not to be exposed to a toxin" even if that person perceives no risk from the toxin.¹¹⁵ But of course the preference for avoiding this risk stems from the fact that the individual might eventually suffer substantial harm—harm that carries a hedonic penalty—from this exposure. If the "toxin" in fact involved zero risk, and the individual were unaware of her exposure to it, then the individual would be no better off for having avoided it. Similarly, they note that "an individual might strongly prefer not to become physically disabled, even though she recognizes that those who become physically disabled tend to adapt and return to their pre-disability level of happiness."¹¹⁶ As a factual matter, this claim is incorrect—people who become disabled typically recover only half (or

¹¹⁵ ADLER & POSNER, NEW FOUNDATIONS, *supra* note 10, at 31.

¹¹⁶ *Id.*

less) of their lost subjective well-being.¹¹⁷ Even if it were true, these individuals would still suffer lost well-being during the period of adaptation (which lasts for two years or more).¹¹⁸ Any self-interested individual would rationally wish to avoid disability. And if disability actually had no negative effect on a person's subjective well-being, then the preference to avoid it would be based on mistaken assumptions and thus subject to the laundering that Adler and Posner themselves impose.

Finally, Adler and Posner note that “an individual's happiness is substantially, if not exclusively, a matter of her basic disposition—that many of the things individuals care about and strive for don't affect mental well-being very much.”¹¹⁹ This is, of course, one of the most significant and counter-intuitive findings of hedonic psychology (though the “if not exclusively” suggestion is overstated).¹²⁰ Yet it is not clear why it should constitute an argument against a hedonic conception of welfare. Adler and Posner recognize that individuals frequently concern themselves with outcomes that do not affect them personally—e.g., Sheila and the Sri Lankan squirrel.¹²¹ They do not, however, treat the existence of these disinterested preferences as an argument against a preference-based account of welfare. Rather, they simply launder them from the calculus. Moreover, there is every indication that when individuals “care about and strive for” things, they often mistakenly believe that these things will make them happy. The prevalence of such failures of affective forecasting is another of the most striking and important findings of hedonic psychology.¹²² Were individuals able to predict their own future mental states accurately, their preferences might change quite dramatically. We return to this point in detail in the section that follows.

In sum, Adler and Posner's objections to a subjective account of welfare cannot bear the weight placed upon them. Having

¹¹⁷ Bronsteen, Buccafusco, & Masur, *Hedonic Adaptation*, *supra* note 6, at 1529.

¹¹⁸ *Id.* at 1539.

¹¹⁹ ADLER & POSNER, *NEW FOUNDATIONS*, *supra* note 10, at 31.

¹²⁰ See Sonja Lyubomirsky et al., *Pursuing Happiness: The Architecture of Sustainable Change*, 9 REV. GEN. PSYCHOL. 111 (2005); Diener, *supra* note 40, at 494 (“Myth 1: Happiness Has an Unchanging Individual ‘Setpoint’”).

¹²¹ These are not idle preferences, either. People give millions of dollars each year to protect species and habitats that they will never visit and whose continued existence they will not monitor.

¹²² See *supra* notes 64-66 and accompanying text.

acknowledged that subjective well-being comprises a substantial portion of individual welfare, they assert that welfare must entail more than mere hedonic mental states. But their examples and arguments do not support to that assertion.

C. *The Hedonic Foundation of Laundered Preferences*

As we explained in the preceding section, Adler and Posner's arguments against a subjective account of welfare are based upon the claim that there must be elements of welfare that subjective mental states do not reflect or cannot account for. We demonstrated the fallacy of that claim and illustrated that Adler and Posner's own approach (laundered preferences) is inconsistent with their arguments against subjective well-being.

That inconsistency is indicative of a deeper connection between their theory and ours: Adler and Posner's preference-based theory of welfare reduces to a purely subjective hedonic account.¹²³ In other words, the two are isomorphic—identical. According to Adler and Posner's own theoretical ground rules, the “thing” for which an individual possesses welfare-relevant preferences is her own subjective well-being.

1. Preference Laundering and End Objectives

One of the most interesting and important features of Adler and Posner's argument for a preference-based account of welfare is its emphasis on laundering individual preferences. Preferences can be easily distorted by a lack of information; for example, an individual might prefer one outcome to another without understanding the full ramifications of that preference or without being able to predict accurately what impact the satisfaction of that preference will have upon her life.¹²⁴ As a theoretical matter, Adler and Posner suggest that

¹²³ Adler and Posner themselves suggest that subjective well-being might someday be understood as the proper measure of welfare: “At the end of the day, we may conclude—after normative argument—that well-being reduces to SWB. But to define them as equivalent at the outset just cuts short this debate by definitional fiat.” Adler & Posner, *Happiness Research*, *supra* note 112 (manuscript at 8). It is that normative argument that we supply here.

¹²⁴ ADLER & POSNER, *NEW FOUNDATIONS*, *supra* note 10, at 36. Adler and Posner offer the example of a person who supports the building of a new dam, knowing that it will reduce the price of electricity, but without realizing that the

these preferences, along with “disinterested” preferences (Sheila and the Sri Lankan squirrel),¹²⁵ should be recalibrated to reflect what their holders would in fact prefer in the presence of full information.¹²⁶ Their innovative theory is based upon the imagined counter-factual of a rational, self-interested citizenry acting in the presence of complete information.¹²⁷

This laundering of preferences reveals that Adler and Posner’s conception of welfare is one of ends, not means. Theirs is not an approach in which the individual’s capacity to satisfy her preferences is the measure of that individual’s welfare. Nor is it a theory of “decision utility,” in which an individual’s decision itself (the satisfied preference) is treated as the unassailable measure of welfare.¹²⁸ Rather, the individual is understood to have a set of self-interested objectives, and the satisfaction of preferences is the manner by which she advances toward those objectives—from O_1 to O_2 to O_3 , and so forth.¹²⁹ Preferences that do not allow an individual to make progress toward fulfilling her objectives are not truly welfare-enhancing on Adler and Posner’s view.

In light of this approach, the preference-based account of welfare demands a laundering not only of uninformed preferences but also of any preference influenced by any sub-rational judgment or any systematic failure of forecasting. Consider, for example, a nervous consumer who fears a 1 in 100 million chance of dying from salmonella-infected spinach and chooses to purchase iceberg lettuce instead. If that consumer has simply improperly gauged the import of

“noise and commotion from construction of the dam” will interfere with her enjoyment of her vacation home. *Id.* at 124.

¹²⁵ In addition, they suggest laundering “objectively bad” preferences, such as sadistic inclinations or preferences for social disorder. *Id.* at 124-25. This decision may raise additional issues regarding Adler and Posner’s approach, but those questions are unimportant to our current argument, and we leave them for another day.

¹²⁶ *Id.* at 36. As a practical matter, Adler and Posner advise agencies and other governmental actors to tread carefully before actively discarding and reimagining the preferences of their citizens. The reason, however, is purely epistemic (and based upon the decision costs of undertaking a wholesale preference reordering). *Id.* at 136-38.

¹²⁷ Adler & Posner, *Happiness Research*, *supra* note 112 (manuscript at 5).

¹²⁸ Kahneman & Thaler, *supra* note 36, at 221.

¹²⁹ Adler and Posner characterize their own view as “a kind of preferentialism about well-being.” ADLER & POSNER, *NEW FOUNDATIONS*, *supra* note 10, at 198 n.28.

a 1 in 100 million risk¹³⁰—failing to realize, for example, that it is orders of magnitude smaller than the risk to life from driving to the supermarket to purchase the lettuce—or overrated the risk due to salience bias, then his preference should be laundered to reflect his true feelings were he capable of correctly assessing the relevant risks.¹³¹ Or imagine a worker who chooses to move from a small downtown condominium to a larger house in the suburbs, believing that he will not mind the additional commute. If he is incorrect, and if the time spent in his car will in fact bring him great unhappiness, then his preferences should be similarly laundered to reflect his true choices absent this forecasting error. Optimism biases,¹³² hindsight biases,¹³³ salience biases,¹³⁴ status quo biases,¹³⁵ low-probability miscalculations,¹³⁶ framing and anchoring effects,¹³⁷ and other sorts of cognitive errors—along with affective forecasting errors, focusing illusions, and other types of hedonic misapprehensions¹³⁸—must all be laundered to produce an individual’s idealized set of preferences.

2. Preferences for What?

¹³⁰ Jonathan S. Masur, *Probability Thresholds*, 92 IOWA L. REV. 1293, 1233 (2007) (describing the tendency to overestimate the importance of low-probability events).

¹³¹ See ADLER & POSNER, *NEW FOUNDATIONS*, *supra* note 10, at 147 (“[C]ognitive biases drive a wedge between preference satisfaction and well-being.”).

¹³² See generally Neil D. Weinstein, *Unrealistic Optimism About Future Life Events*, 39 J. PERSONALITY & SOC. PSYCHOL. 806 (1980).

¹³³ See generally Baruch Fischhoff, *Hindsight ≠ Foresight: The Effect of Outcome Knowledge on Judgment Under Uncertainty*, 1 J. EXPERIMENTAL PSYCHOL. HUM. PERCEPTION & PERFORMANCE 288 (1975).

¹³⁴ See generally Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCI. 1124, 1127 (1974).

¹³⁵ See generally William Samuelson & Richard Zeckhauser, *Status Quo Bias in Decision Making*, 1 J. RISK AND UNCERTAINTY 7 (1988); see also Richard Thaler, *Toward a Positive Theory of Consumer Choice*, 1 J. ECON. BEHAV. & ORG. 39 (1980) (discussing “endowment effects” more specifically).

¹³⁶ Masur, *supra* note 156, at 1331-37.

¹³⁷ See generally Amos Tversky & Daniel Kahneman, *Rational Choice and the Framing of Decisions*, 59 J. BUS. S251 (1986); Tversky & Kahneman, *Judgment Under Uncertainty*, *supra* note 160, at 1128.

¹³⁸ See *supra* notes 64-66 and accompanying text.

The result of this extensive laundering process is a rational,¹³⁹ self-interested, idealized individual—one who has in mind a set of personal objectives and formulates preferences accurately designed to achieve those objectives. But on this account, what sorts of objectives might such a person possess? We believe that under Adler and Posner's analytical framework, there is only one option.

Consider the case of the Driven Scholar—a colleague of our Deceived Scholar. Ten years into his career at a major university, the Driven Scholar is faced with a choice: he can sustain himself as a reasonably productive researcher, spend significant leisure time with his wife—a busy professional herself—and their two young children, and generally lead a satisfying and happy life (Path A); or he can devote himself body-and-soul to his work, slowly lose contact with his devoted family, but achieve great scientific breakthroughs, an eventual Nobel Prize, and widespread acclaim (Path B). Suppose, however, that the Scholar—endowed with full information and stripped of affective forecasting errors—understands that Path B will not bring him happiness. Thirty years later, blessed with a Nobel Prize but estranged from his family, he will take less pleasure in life, and view his life as ultimately less satisfying, than he would have if he had accepted a more modest career in exchange for the lasting company of his family. Fame and recognition have fleeting hedonic consequences; marriage and social ties are far more important to an individual's subjective well-being.¹⁴⁰

About this hypothetical we can say two things. First, few people—maybe no one—would prefer Path B as a means of maximizing their own well-being.¹⁴¹ The contrary view is certainly tempting; the reader may feel herself immediately drawn to that choice. But it is critical to understand that the intuitive force of this hypothetical—and of the allure of the Nobel Prize—is the tendency to

¹³⁹ Adler and Posner bracket the question of whether an idealized set of preferences should be understood to include full information—and by our argument, rationality—only up to an individual's cognitive limits, or whether we should envision an entirely informed human being. ADLER & POSNER, *NEW FOUNDATIONS*, *supra* note 10, at 38. For our purposes the difference is irrelevant; what matters is that the individual's preferences should be adjusted to some significant extent to reflect her actual objectives.

¹⁴⁰ See Argyle, *supra* note 43, at 359-62.

¹⁴¹ They might prefer it for altruistic reasons involving the value to others of the scientific breakthroughs, but that (like the squirrel's survival) is not a part of *their* welfare beyond the extent to which they know about it and are made happy by it.

believe that there *must* be some additional hedonic benefit to be had from such a tremendous achievement, some satisfaction or fulfillment that the story does not capture. And that is precisely the point: individuals concerned only with their own welfare seek accomplishment and recognition because they believe that they will *feel* differently after they have achieved these objectives, not because of anything intrinsic to the objectives themselves. The objectives are purely instrumental.

Second, even if some hypothetical scholars with full information did in fact prefer Path B and the life of unhappy glory, they would be doing so despite the fact that satisfaction of that preference will not increase their welfare. That is to say, no rational, idealized, self-interested, welfarist individual, per Adler and Posner's account, could hold such a preference. The unhappy Nobel Laureate might possess greater prestige, or greater moral character, or have contributed more to the betterment of society than the scholar who opts for family over career, but to say that he has greater well-being is to reject the very conceptions of "self-interest" or "benefit" as Adler and Posner employ them. What inherent value could success and fame, or wealth,¹⁴² or the survival of the Sri Lankan squirrel, hold for the self-interested welfare seeker if he does not experience and benefit from them at some subjective level?

This point warrants one final example. Consider the Noble Politician, who leads a country stricken by civil strife.¹⁴³ Much like the Driven Scholar, the Noble Politician is faced with a choice: she can elect to pursue a modest career and live a life of comfort and contentment (Path A), or she can devote herself to bringing peace to her violence-torn nation at great personal cost to herself (Path B). By following this latter path, the Noble Politician will accomplish great things on behalf of her fellow citizens; but as with the Driven Scholar, the former option will bring her greater individual happiness and satisfaction.

We have already addressed this example, in general form, in the preceding Part on the relationship between welfare and the "good life."¹⁴⁴ There, we were at pains to acknowledge that altruism is valuable due to its effect on others' subjective well-being, and perhaps

¹⁴² Adler & Posner, *Happiness Research*, *supra* note 112 (manuscript at 15).

¹⁴³ We model this example after John Hume, one of the architects of the Northern Ireland peace process, discussed in Nussbaum, *supra* note 69, at 22-23.

¹⁴⁴ See Part II.B.3., *supra*.

independently morally worthwhile as well. We expect—indeed, we hope—that many people would prefer the altruistic path. But that choice is not welfare-enhancing to the individual if it does not make the altruist happier—which, by hypothesis, it does not.

Here, we go one step further. Like our subjective account of welfare, Adler and Posner’s restricted-preference framework would view a preference for the difficult, altruistic life as welfare-diminishing. Altruism, for all of its many virtues, is by definition not self-interested.¹⁴⁵ With altruism laundered from the calculation, Path A confers greater individual benefit upon the Noble Politician than Path B. Only a preference for Path A would survive the process of preference-laundering. Here, as with the Driven Scholar, the requirement that preferences be both idealized and self-interested eliminates from the welfare calculus any preference that the individual will not herself experience as beneficial.

What then is left of the restricted-preferences account other than subjective well-being? The answer, we submit, is nothing; the two are perfectly isomorphic. A self-interested, restricted theory of welfare demands that the individual actually receive some benefit before one can say that her welfare has increased;¹⁴⁶ this conception of “benefit” is rendered meaningless unless the individual actually *experiences* the benefit.¹⁴⁷ To claim otherwise—to argue that an individual’s welfare can improve without that improvement registering subjectively—is to welcome Sheila and her Sri Lankan squirrel back into the fold.

* * *

Individuals have many different types of preferences, including ones that are self-interested, altruistic, and mistaken. Yet once those preferences have been laundered to reflect only self-interest and perfect information, as Adler and Posner advocate, they reduce to a pure preference for improvement in subjective well-being.

¹⁴⁵ Adler & Posner, *Happiness Research*, *supra* note 112 (manuscript at 5).

¹⁴⁶ ADLER & POSNER, *NEW FOUNDATIONS*, *supra* note 10, at 34-35.

¹⁴⁷ The argument is symmetric to Adler and Posner’s claim, in opposition to a virtue ethics view of welfare, that O_1 cannot be better for an individual’s welfare than O_2 if the individual never prefers O_1 to O_2 . *Id.* at 32. Similarly, it is unsound to speak of an increase in individual welfare that the individual never experiences as a gain in subjective well-being.

IV. TOWARD SUBJECTIVE WELL-BEING ANALYSIS

The preference-based theory of modern welfare economics has been so influential for so long in large part because it has generated a number of methods for translating theory into policy-oriented practice. The most prominent example is the use of cost-benefit analysis (CBA) as a decision procedure to judge the likely effect of laws and policies on well-being. In the past half century, CBA has become the linchpin of the modern American administrative state,¹⁴⁸ and many scholars (including, prominently, Adler and Posner) have made considerable contributions toward refining both the theory and practice of CBA.

Cost-benefit analysis is based upon the principle that wealth is the best available proxy for welfare.¹⁴⁹ If this were indeed the case, then cost-benefit analysis would be the most logical choice of governmental decision procedure. But as we have argued here, welfare is better understood as subjective well-being. Moreover, there exist good proxies for subjective well-being that do not rely on measuring wealth. We thus believe that the time has come to replace cost-benefit analysis with a new decision procedure based on experienced well-being—well-being analysis (WBA).¹⁵⁰ The remainder of this paper takes the first steps toward creating and defending that procedure.¹⁵¹ The science behind subjective well-being is still young, and our aim here is only to sketch the outlines of a decision tool that may soon become as robust as CBA. But we believe

¹⁴⁸ See, e.g., Exec. Order 12,866 (requiring cost-benefit analysis of all regulatory action).

¹⁴⁹ See, e.g., Adler & Posner, *Rethinking Cost-Benefit Analysis*, *supra* note 126, at 180-81, 195.

¹⁵⁰ Adler and Posner themselves suggest such a move: “Of course, one could produce an alternative procedure that avoided dollars and instead used SWB [subjective well-being] units as the common metric. Then the dollar effects of projects would be transformed into SWB units rather than vice versa. There is no reason in principle why such an alternative would not be adequate in a world where the government advances SWB alone, but, as we have seen, researchers have not yet come up with a plausible SWB-based decision procedure.” Adler & Posner, *Happiness Research*, *supra* note 112 (manuscript 36). It is that plausible SWB-based decision procedure that we construct here.

¹⁵¹ For an example of another proposal for using reported well-being in public policy, see Alan B. Krueger et al., *National Time Accounting: The Currency of Life*, in *MEASURING THE SUBJECTIVE WELL-BEING OF NATIONS: NATIONAL ACCOUNTS OF TIME USE AND WELL-BEING* (Alan B. Krueger, ed. forthcoming), available at <http://www.nber.org/books/krue08-1>.

that the practical and theoretical hurdles WBA will confront are hardly insuperable and no greater than those that CBA faces.

A. *Well-Being Analysis*

1. A Procedural Sketch

The procedure of a future WBA will likely owe much to the techniques developed for CBA, and it will be helpful to describe briefly the latter in order to better understand the strengths of the former.¹⁵² CBA, as its name suggests, is meant to compare the costs of some policy, law, or decision to the benefits that would accrue from it. When the benefits outweigh the costs, the policy should be implemented—at least insofar as the policymakers' goal is to increase welfare. While this seems straightforward enough for market-based transactions, it becomes substantially more complicated when the costs and benefits to be compared are qualitatively distinct. How, for example, should one compare the social and financial benefits of a new civic center with the environmental and psychological costs of increased traffic congestion? CBA's answer is monetization. Using contingent valuation (CV) surveys, economists attempt to gauge the amount of money that people would pay to receive the benefits and the amount of money they would pay to avoid the costs.¹⁵³ When the former exceeds the latter, the policy is assumed to be welfare maximizing.

As a theoretical matter this makes perfect sense. The research from behavioral economics and hedonic psychology, however, suggests that CBA faces significant empirical hurdles. As discussed above, when people are asked to make predictions about the effects of future experiences on their well-being, they tend to suffer from a number of cognitive and emotional biases.¹⁵⁴ Affective forecasting errors, cognitive heuristics, and the like drive a wedge between (ex

¹⁵² For a robust description and defense of modern CBA, see ADLER & POSNER, NEW FOUNDATIONS, *supra* note 10.

¹⁵³ CV surveys ask a person how much she would be willing to pay (WTP) for some desirable outcome, such as the construction of a public park, or how much she would be willing to accept (WTA) in exchange for an undesirable one (e.g., the destruction of the park). Although theoretically equivalent, the way the question is framed substantially affects the valuation amount. See Russell Korobkin, *The Endowment Effect and Legal Analysis*, 93 NW. U. L. REV. 1227 (2003).

¹⁵⁴ See *supra* notes 64-66 and accompanying text.

ante) predicted well-being and (ex post) experienced well-being.¹⁵⁵ The attractiveness of WBA is based on the tighter link between subjectively reported well-being and actual welfare.

Whereas CBA must convert the costs and benefits of a proposed law or policy into discrete amounts of money, WBA relies on a closer proxy for well-being—subjectively reported data on moment-by-moment affect.¹⁵⁶ We propose a decision procedure based upon the measurement of momentary affect associated with policy-relevant experiences. Governments would measure and quantify the likely hedonic effects of potential projects and policies and would make decisions based upon those projected effects. Rather than relying on wealth as a (weak) proxy for welfare, WBA provides decision-makers with direct information about the welfare consequences of a given proposal.

For example, a decision-maker might begin by comparing the amount of time that people spend driving in traffic with their self-reported affect. If over the course of a day people who spend two hours in traffic report their affect as two points lower (on a seven-point scale)¹⁵⁷ than people who spend one hour in traffic, we can say that a second hour of driving in traffic results in the loss of 2 WBUs (well-being units). A proposal, such as a tax incentive for urban rather than suburban living, that resulted in 1000 people taking an hour off of their two-hour commutes would have a benefit of 2000 WBUs. Of course, that same proposal might also diminish well-being because people would be living in smaller houses. Downsizing from a 2500 square-foot house to a 1500 square-foot house might result in daily reported well-being scores that are one point lower per person, leading to a loss of 1000 WBUs for the relevant population. On these data, the government should adopt the proposal (all else equal) because it creates a net benefit of 1000 WBUs.¹⁵⁸

Using momentary affect measures like the ones discussed above, governments will be able to gauge the impact of manifold experiences on reported well-being and convert these scores into

¹⁵⁵ See Kahneman & Sugden, *supra* note 37, at 164.

¹⁵⁶ To be clear, momentary affect is not a proxy for well-being; it is well-being. Yet while the experiences of momentary affect equate with well-being, the data that current survey methods generate can only serve as a proxy for it.

¹⁵⁷ This might be, for example, a scale like the one presented in Pavot, *supra* note 27, at 128.

¹⁵⁸ Obviously a number of other costs and benefits would be involved in the calculation. We simplify the example for the sake of clarity.

WBUs of various durations. If a government were able to anticipate all of the potential impacts of a project on individuals' well-being, it could compute the aggregate WBU gain or loss. Although predicting all of the well-being consequences of a law will be difficult, it can be enhanced by research focusing on the effects of similar measures. For example, the residents of a state might be surveyed both before and after the enactment of a law that raised the minimum wage. If reported well-being improved, we could say that, at least as a matter of overall welfare, the bill was a success, and we might favor similar measures in the future. Studies of the impact of state-by-state adoption of no-fault divorce have already shown the value of such research.¹⁵⁹

Economists and psychologists have already learned a great deal about the hedonic consequences of various activities¹⁶⁰ and devised an ever-growing set of policy proposals based upon those findings.¹⁶¹ It is not unrealistic to believe that WBA may someday supplant CBA as the leading decision procedure.

2. Governmental Objectives and WBA Morality

The fact that governments may soon be capable of measuring and aggregating subjective well-being does not answer the question of precisely what governments should seek to achieve and, in particular, what role distributional consequences should play. Much ink has been spilled on the deep questions of morality raised by these issues. It is well beyond the scope of this article to conduct a thoroughgoing analysis of these questions or to reach many firm conclusions, and we will not attempt such steps here. Rather, our objective is to set forth a list of criteria that could form the basis for WBA-based government

¹⁵⁹ See Betsey Stevenson & Justin Wolfers, *Bargaining in the Shadow of the Law: Divorce Laws and Family Distress*, 121 Q. J. ECON. 267 (2006).

¹⁶⁰ See Kahneman et al., *DRM*, *supra* note 33, at 1777; van Praag & Baarsma, *supra* note 124, at 224.

¹⁶¹ See Andrew J. Oswald & Nattavudh Powdthavee, *Death, Happiness, and the Calculation of Compensatory Damages*, 37 J. LEG. STUD. (forthcoming 2009) (proposing the use of hedonic regression equations to calculate civil damages); Christopher K. Hsee et al., *Two Recommendations on the Pursuit of Happiness*, 37 J. LEG. STUD. (forthcoming 2009) (recommending investment in resources that are resistant to adaptation and inherently evaluable); Jonathan Haidt et al., *Hive Psychology, Happiness, and Public Policy*, 37 J. LEG. STUD. (forthcoming 2009) (suggesting that "an increase in the availability of music, dance, and street festivals should increase happiness and trust while decreasing alienation and crime").

policy. We take no position on how a government should balance these competing concerns, with the exception of one instance that we believe gives rise to a clear normative conclusion.

a) Aggregate Welfare

One conceivable objective of government is to maximize the aggregate welfare of its citizens.¹⁶² A government might thus pursue projects that increase the total WBUs of all individuals, aggregated across the entire span of their lives. We take no position on the importance of aggregate welfare in comparison to other measures or goals, with one exception: a project that increases the subjective well-being of one or more individuals while leaving the welfare of the other individuals unchanged is normatively desirable. (That is to say, WBA satisfies the Pareto principle.¹⁶³) We can think of no objection, at least on welfarist grounds, to a project that will make some people better off without harming the remainder.¹⁶⁴

It is worth noting that this conclusion does not hold for conventional CBA. A project that made some people wealthier without altering the wealth of the remaining people might nonetheless make those unaffected worse off. Inflation effects could diminish their purchasing power and reduce the value of their money, or their diminished status in comparison to their fellow citizens could make them unhappy and reduce their welfare.¹⁶⁵ These complications arise because wealth is only a weak proxy for welfare. In contrast, if a person's subjective well-being remains unchanged, that person's welfare has not decreased.

b) Per-Capita Welfare

¹⁶² JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION 12-13 (J.H. Burns & H.L.A. Hart eds., 1970) ("An action may be said to be conformable to the principle of utility . . . (meaning with respect to the community at large) when the tendency it has to augment the happiness of the community is greater than any it has to diminish it.").

¹⁶³ See generally Adler & Posner, *Rethinking Cost-Benefit Analysis*, *supra* note 126, at 188.

¹⁶⁴ There may of course be non-welfare reasons for opposing such a project. We bracket them here.

¹⁶⁵ See David G. Blanchflower & Andrew J. Oswald, *Well-Being Over Time in Britain and the USA*, 88 J. PUB. ECON. 1359, 1378 (2004); Richard A. Easterlin, *Will Raising the Incomes of All Increase the Happiness of All?* 27 J. ECON. BEHAV. & ORG. 35 (1995).

Another conceivable objective of government is to maximize the per capita welfare of its citizens, even at the expense of aggregate welfare.¹⁶⁶ Thus, a government might conceivably favor a project that would produce a population of 1,000 people, each with 6 WBUs, instead of a population of 1,550 people, each with 4 WBUs.¹⁶⁷

c) Interpersonal Distribution

Another conceivable objective of government is to reduce the interpersonal disparities of welfare among its citizens, even if it comes at the expense of aggregate welfare.¹⁶⁸ Thus, a government might conceivably favor a project that would result in a population of 1,000 people, each with 5 WBUs, instead of a population of 550 people with 6 WBUs and 450 people with 4 WBUs.¹⁶⁹

d) Intrapersonal/Intratemporal Distribution

Finally, another conceivable objective of government is to reduce the intratemporal disparities of the welfare of its citizens, even at the expense of aggregate welfare. Individuals might prefer stable levels of happiness, just as economists suggest that individuals rationally favor stable levels of consumption.¹⁷⁰ Thus, a government might conceivably favor a project that would ensure an individual 5 WBUs of welfare for the entire duration of her life, instead of that individual spending the first half of her life at 6 WBUs and the second half of her life at 4.2 WBUs.¹⁷¹

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¹⁶⁶ See e.g. JOHN RAWLS, *A THEORY OF JUSTICE* (1971).

¹⁶⁷ We have in mind something like state-funded counseling for parents planning on starting families.

¹⁶⁸ See JOHN BROOME, *WEIGHING GOODS* 192-200 (1991); FRED FELDMAN, *UTILITARIANISM, HEDONISM, AND DESERT* 154-74 (1997).

¹⁶⁹ A progressive income tax might have this type of effect.

¹⁷⁰ For a review of research on how people value utilities at different times, see Shane Frederick et al., *Time Discounting and Time Preference: A Critical Review*, 40 *J. ECON. LIT.* 351 (2002).

¹⁷¹ Social Security and Medicare may have this type of effect.

We are at pains to reiterate that we take no position on which, if any, of these four objectives are normatively legitimate aims of government. We mean only to catalogue the types of objectives that a government, guided by a WBA-based decision procedure, might choose to pursue. Regardless of which goal or set of goals a government elects, WBA will prove to be a powerful analytical tool.

B. *Objections*

Having outlined the affirmative case for a decision procedure based upon subjective well-being analysis, we proceed to confront the four most important objections to this approach.¹⁷² We argue that these objections are not insurmountable, and moreover, that they apply with equal force to the leading alternative, cost-benefit analysis.

1. Monetization

The first difficulty in implementing subjective well-being analysis lies in “monetizing”—here, more appropriately “hedonizing”—the value of various projects. If a federal agency is proposing to construct a dam that will lower electricity prices but simultaneously interfere with recreational fishing and create noise and other nuisances, it may be difficult to translate the various effects of the dam into workable social welfare units in order to compare costs and benefits.¹⁷³ Nonetheless, we believe that these types of problems remain eminently solvable.

To begin with, these are purely empirical questions. As psychologists accumulate data on hedonic responses to a diversity of circumstances and stimuli, policy-makers will be able to reach ever more precise estimations of the hedonic consequences of the various aspects of a project. The task is no more theoretically daunting or costly than collecting general census data; the government need only deploy survey-takers and invite psychologists and economists to analyze the resulting data. Indeed, large-scale efforts at collecting general hedonic data such as the British Household Panel Survey and the American General Social Survey are already underway, and economists have gleaned substantial insights from even this unfocused

¹⁷² Adler and Posner raise these objections in Adler & Posner, *Happiness Research*, *supra* note 112 (manuscript at 28).

¹⁷³ *Id.* at 28.

information-gathering.¹⁷⁴ Research targeted directly at potential government projects will undoubtedly prove far more useful. For example, studies of the well-being consequences of living with various diseases are already having an effect on policies related to medical decision-making.¹⁷⁵

Moreover, traditional cost-benefit analysis suffers from the same types of problems and is no better able to cope with them. It is impossible to price the harm to recreational fishing or the annoyance associated with construction noise without surveying the affected populace,¹⁷⁶ just as one might survey their hedonic attitudes; and there is no reason to believe that contingent valuation data—which ask people in the abstract how much they would be willing to pay to avoid construction noise or to save a fishery—are easier to collect or more reliable.¹⁷⁷

¹⁷⁴ See, e.g., Andrew J. Oswald & Nattavudh Powdthavee, *Does Happiness Adapt? A Longitudinal Study of Disability with Implications for Economists and Judges*, 92 J. PUB. ECON. 1061 (2008); Lucas et al., *supra* note 44, at 527.

¹⁷⁵ See Peter A. Ubel et al., *Misimagining the Unimaginable: The Disability Paradox and Health Care Decision Making*, 24 (No. 4 Suppl.) HEALTH PSYCHOL. S57, S57 (2005).

¹⁷⁶ Hedonic price or wage methods can be used to estimate the price of harm in some instances. For example, the value of the risk of increased injury on the job can be evaluated by examining the wage premiums paid to workers in the industry. See W. KIP VISCUSI, *FATAL TRADEOFFS: PUBLIC AND PRIVATE RESPONSIBILITIES FOR RISK* (1992). However, hedonic price or wage methods, as an indirect means of estimation, are subject to identification, multicollinearity, and information problems that make it impossible to accurately value some things. See Robert W. Hahn & John A. Hird, *The Costs and Benefits of Regulation: Review and Synthesis*, 8 YALE J. REG. 233, 241-43 (1991).

¹⁷⁷ See Peter A. Diamond & Jerry A. Hausman, *Contingent Valuation: Is Some Number Better than No Number?*, 8 J. ECON. PERSP. 45 (1994) (discussing the recurrent problems with contingent valuation surveys and providing an overview of alternative explanations for the responses given in willingness-to-pay questions); see also Robert H. Frank & Cass Sunstein, *Cost-Benefit Analysis and Relative Position*, 68 U. CHI. L. REV. 323 (2001) (concluding that the positional and relative effects of wealth cause measures of willingness to pay to systematically understate the benefits of regulatory change). But see Thomas J. Kniesner & W. Kip Viscusi, *Why Relative Economic Position Does Not Matter: A Cost-Benefit Analysis*, 20 YALE J. ON REG. 1 (2003) (arguing against the Frank and Sunstein proposal due to the practical problems with identifying the relevant social reference group, the evidence that there exist countervailing health and safety positional effects, and the probability that increasing the estimated benefits from regulation by even 50 percent would not ultimately change current regulatory evaluations because this increase would fall within the typical range of possible outcomes already employed in real-world cost-benefit analyses); W. Michael Hanemann, *Valuing the Environment Through*

Indeed, WBA holds two advantages over typical CBA. First, as we note above, there is a tighter theoretical connection between, for instance, the nuisance caused by construction noise and an individual's subjective well-being than between that same nuisance and an individual's willingness to pay to be rid of it.¹⁷⁸ After all, willingness to pay is only a proxy for nuisance-related harm; the hedonic cost is the actual relevant quantity. In order to arrive at willingness-to-pay figures, the affected individual must first translate this expected hedonic penalty into a monetary amount. WBA avoids the errors associated with this translation. The comparative advantage of CBA is that many of the costs and benefits of governmental projects are already monetized. Decreases in the price of electricity, for instance, are measured in dollars, while WBA would require that they be translated into WBUs. However, economists have already begun to assemble highly robust measures of wealth effects on subjective well-being,¹⁷⁹ so this act of translation may soon become relatively simple.

Second, hedonic analyses, unlike contingent valuation studies, are not hypothetical. Few individuals will ever be offered the opportunity to trade small amounts of money for diminished construction noise or slightly improved recreational fishing opportunities; government regulation exists in large part because the transaction costs of such arrangements are too high.¹⁸⁰ Even when individuals are forced into implicit tradeoffs—when the agency decides not to construct the dam, for instance, and electricity prices do not decline—the associations between costs and benefits are usually too ephemeral to make post hoc judgments reliable.¹⁸¹ Contingent valuation studies are thus forced to rely primarily on laboratory-based hypothetical questions regarding hypothetical payments to forestall hypothetical projects. By contrast, hedonic analyses compare

Contingent Valuation, 8 J. ECON. PERSP. 19 (1994) (claiming that properly administered contingent valuation surveys can produce stable, replicable, and valid responses).

¹⁷⁸ See Part IV.A.1., *supra*.

¹⁷⁹ Oswald & Powdthavee, *supra* note 200, at 1061.

¹⁸⁰ See Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1111-15 (1972); Ronald H. Coase, *The Federal Communication Commission*, 2 J. LAW & ECON. 1, 29 (1959).

¹⁸¹ See Diamond & Hausman, *supra* note 203, at 45 (discussing the recurrent problems with contingent valuation surveys and providing an overview of alternative explanations for the responses given in willingness-to-pay questions).

individuals' actual levels of happiness before and after an actual project is completed. It may of course be difficult to isolate the hedonic effects of the project itself among all of the possible confounding variables, but sophisticated multivariate regression has already proven equal to the task on many occasions.¹⁸² Consequently, WBA may ultimately hold substantial empirical advantages over traditional CBA.

2. Interpersonal Comparisons

The second potential pitfall for WBA is the difficulty in making interpersonal comparisons. If two people both rate their happiness at 6 on a 7-point scale, there is no way to be certain that they are actually experiencing equivalent levels of hedonic well-being. Similarly, if a government project will move Person A's average moment-by-moment well-being from 6 to 7 and Person B's from 6 to 5.5, it is impossible to know whether Person A's welfare has in fact improved more than Person B's has diminished.¹⁸³ If WBA is to rely on a summing of individual welfare states, it will be difficult to compare the pre-project total of 12 with the post-project total of 12.5 absent a consistent interpersonal standard. This problem may not easily succumb to technological solution. Without the capacity to physiologically measure happiness (using fMRI technology, for instance), third parties will be unable to observe an individual's true level of subjective well-being.

At the same time, this issue should only mildly concern policymakers analyzing large-scale projects. Individuals may respond slightly idiosyncratically to happiness surveys, but across large populations—hundreds or thousands of people—these small interpersonal differences should tend to wash out. There is no *a priori* reason to believe that particular American demographic groups respond to hedonic surveys in particular ways. Variations among individuals in how they rate their own happiness—what they mean when they rate themselves a 5 or a 6, for instance—are likely to be

¹⁸² See Oswald & Powdthavee, *supra* note 200; Lucas et al., *supra* note 44.

¹⁸³ Adler and Posner, *Happiness Research*, *supra* note 112 (manuscript at 28-29).

random, not biased.¹⁸⁴ Large numbers of survey responses should successfully mitigate these discrepancies.¹⁸⁵

Most important, cost-benefit analysis is equally subject to this criticism. Because of the diminishing marginal value of money, two individuals with differing levels of personal wealth can obtain vastly different amounts of welfare from the same gain (or loss) of income.¹⁸⁶ Adjusting CBA in accordance with variations in marginal values of money is quite technically complex, and the proper solution is frequently unclear or highly context-dependent.¹⁸⁷ The problems for CBA do not end there. Even two equivalently wealthy individuals may have vastly divergent welfare functions—additional wealth might benefit one far more than the other. Individuals' welfare functions are unobservable;¹⁸⁸ economists know (or assume) that marginal values of money are positive and diminish with increasing wealth, but they can be sure of little else.¹⁸⁹ Economists typically respond to this problem

¹⁸⁴ This is true at least among Americans. There is some evidence that citizens of different nations with vastly different cultures treat happiness surveys systematically differently, *see* ED DIENER & EUNKOOK M. SUH, EDS., *CULTURE AND SUBJECTIVE WELL-BEING* (2000), but the domestic focus of most projects will render these differences irrelevant.

¹⁸⁵ *See* Rafael di Tella & Robert MacCulloch, *Some Uses of Happiness Data in Economics*, 20 *J. ECON. PERSP.* 25, 29 (2006) (discussing the possibility of reducing systemic differential reporting biases by comparing across larger groups). In addition, the U-Index proposed by Krueger et al. is designed to mitigate differences in scale usage. *See* Krueger et al., *supra* note 178, at 11.

¹⁸⁶ *See, e.g.*, Robert H. Frank, *The Frame of Reference as a Public Good*, 107 *ECON. J.* 1832, 1833-35 (1997); Ed Diener & Carol Diener, *The Wealth of Nations Revisited: Income and Quality of Life*, 36 *SOC. INDICATORS RES.* 275, 275-86 (1995).

¹⁸⁷ JAMES C. MCDAVID & LAURA R. L. HAWTHORN, *PROGRAM EVALUATION & PERFORMANCE MEASUREMENT: AN INTRODUCTION TO PRACTICE* 265-66 (2006) (“Analyzing such situations in benefit-cost analyses can be complex. It is not easy to estimate the marginal benefits associated with income redistribution, although it is generally believed that the marginal value of money tends to be greater with lower incomes. Generally, analysts tend to assume that transfers are neutral with respect to the marginal value of money, simply because estimates of the magnitudes of differences are difficult to construct and defend.”); *see also* Adler & Posner, *Rethinking Cost-Benefit Analysis*, *supra* note 126, at 177-81 (illustrating the difficulty of forward-looking cost-benefit analysis under income effects); ADLER AND POSNER, *NEW FOUNDATIONS*, *supra* note 10, at 142-46.

¹⁸⁸ ROBERT NADEAU, *THE WEALTH OF NATURE: HOW MAINSTREAM ECONOMICS HAS FAILED THE ENVIRONMENT* 115-116 (2003); PER-OLAV JOHANSSON, *AN INTRODUCTION TO MODERN WELFARE ECONOMICS* 40-56 (1991).

¹⁸⁹ Uncertainty concerning individual welfare functions is especially problematic when attempting to make interpersonal comparisons of utility, which are

by simply assuming that its effects dissipate across large populations¹⁹⁰—precisely the approach we advocate for WBA. It is thus hard to imagine that interpersonal comparisons will present greater difficulty for WBA than they do for classical CBA.

3. Aggregation

A third possible obstacle for WBA lies in the ambiguities involved in aggregating interpersonal welfare states. For instance, if Person A's welfare decreases from 6 to 5 and the welfare of Persons B through Z increases from 6 to 6.1, it is difficult to know whether this net gain of 1.5 WBUs¹⁹¹ actually indicates that overall welfare has increased, decreased, or remained constant.¹⁹²

This objection has two components. The first is simply a repetition of the interpersonal comparison problem discussed above: it is impossible to know whether a hedonic improvement for Person B from 6 to 6.1 is of equivalent magnitude to a hedonic regression for Person B from 6 to 5.9. We have already addressed this question. The second component is the argument that a weak welfarist cannot conclude that a project is worth pursuing from the fact that overall welfare has increased if some people will be better off and others worse off. This claim is certainly correct, but it is identical to the problems faced by CBA or any other wealth-based decision procedure. The simple fact that a project will result in Person A receiving \$100 and Person B losing \$50 is not sufficient reason to undertake the project in light of distributional issues and other considerations beyond aggregate welfare.¹⁹³ This is merely another way of stating that there

likely possible in only very limited circumstances. See, e.g., John C. Harsanyi, *Cardinal Welfare, Individualistic Ethics, and Interpersonal Comparisons of Utility*, 63 J. POL. ECON. 309, 315-19 (1955) (“[E]ach individual has a utility function of his own, expressing his own individual taste In general, the greater the psychological, biological, cultural, and social differences between two people, the greater the margin of error attached to comparisons between their utility.”).

¹⁹⁰ di Tella & MacCulloch, *supra* note 211, at 29; Adler & Posner, *Rethinking Cost-Benefit Analysis*, *supra* note 126, at 174 & n.34.

¹⁹¹ 25 people have each gained 0.1, for a total gain of 2.5, and one person has lost 1, for a net of 1.5.

¹⁹² See Adler & Posner, *Happiness Research*, *supra* note 112 (manuscript at 29).

¹⁹³ This is certainly true if Person A and Person B have different welfare functions, such that the project might diminish overall welfare—again, the problem we address in Section IV.B.2—but it is true even if they have identical welfare functions and aggregate welfare will increase.

is no independent moral or normative significance to Kaldor-Hicks efficiency, which is by now a well-accepted conclusion among economists.¹⁹⁴

In the preceding section we outlined a set of potential moral criteria for evaluating projects based on WBA, criteria that include aggregate welfare, per capita welfare, and distribution-adjusted aggregate welfare.¹⁹⁵ There is little more to be said on that topic here; suffice it to add that the unarguable difficulties in negotiating between those various criteria are no greater for WBA than they are for CBA.

4. Intertemporal Compensation

The final important objection to WBA relates to hedonic compensations in Period 2 for events that occurred in Period 1. Imagine that an individual has been injured in a car accident, causing her average moment-by-moment well-being to fall from 6 to 5 for a period of one year.¹⁹⁶ (It then returned to 6.) Imagine that there were two potential methods of compensating her for her injury: Plan A would raise her well-being from 6 to 7 for one year, and Plan B would raise her well-being from 6 to 6.5 for two years. An objector might argue that it is unclear whether either of these plans would compensate her appropriately. Depending upon the relationship between her survey responses and her actual well-being, and upon how she values the well-being of each of her various temporal selves, either Plan A or Plan B might over- or under-compensate her.

Upon examination it becomes evident that this objection again reduces to a combination of two arguments we have already addressed. The issue of whether a decline from 6 to 5 is of equivalent magnitude to an improvement from 6 to 7 (or twice that of an improvement from 6 to 6.5) is merely an *intrapersonal* variant on the quandary regarding interpersonal comparisons and the shape of

¹⁹⁴ ADLER & POSNER, *NEW FOUNDATIONS*, *supra* note 10, at 21-23; Adler & Posner, *Rethinking Cost-Benefit Analysis*, *supra* note 126, at 195. *But see* Richard A. Posner, *The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication*, 8 *HOFSTRA L. REV.* 487 (1980) (attempting to justify Kaldor-Hicks efficiency as a moral criterion); Richard A. Posner, *Utilitarianism, Economics, and Legal Theory*, 8 *J. LEG. STUD.* 103 (1979) (same).

¹⁹⁵ *See* Part IV.A., *supra*.

¹⁹⁶ As with the preceding sections, we draw this hypothetical (and this objection) from Adler & Posner, *Happiness Research*, *supra* note 112 (manuscript at 29).

hedonic curves.¹⁹⁷ We have already dealt with this question and shown that it is, if anything, more easily handled than the parallel problems surrounding CBA. Similarly, the intertemporal problem—whether a gain in Period 2 effectively counterbalances a loss in Period 1—is an intrapersonal variant on the question of interpersonal aggregation and the moral significance of overall welfare.¹⁹⁸ We have addressed this question as well.

* * *

We do not mean to overstate the ease with which agencies and other decision-makers could implement subjective well-being analysis. The science of hedonic well-being remains in its infancy, and the type of detailed theoretical framework that surrounds CBA does not yet exist for WBA. This Article is an initial step in the direction of supplying such a new framework. But it is worth noting, even at this early stage, that none of the objections to WBA is insurmountable, and none is more daunting than similar questions that have plagued CBA. If there is a reason to suspend the exploration of WBA as a decision procedure, we have not yet found it.

CONCLUSION

Economists, philosophers, and lawyers have long agreed that one of government's foremost responsibilities is to improve the welfare of its citizens. But they have disagreed vehemently over the best conception of welfare. Some have argued for a vision of welfare defined by the satisfaction of preferences, whereas others have promoted a theory of welfare based on objectively good acts. In this article we reject these two leading theories. We demonstrate instead that an individual's welfare is best understood as her subjective well-being—how she feels, and how much happiness she experiences. No other conception of welfare accords as well with our intuitions and our knowledge of human behavior.

Policymakers have long treated cost-benefit analysis as the preeminent decision procedure, and CBA is now firmly ensconced within the modern regulatory state. But CBA only makes sense as the methodological tool of first resort if wealth is the best available proxy

¹⁹⁷ See Part IV.B.2., *supra*.

¹⁹⁸ See Part IV.B.3., *supra*.

for welfare. Hedonic psychology demonstrates that it is not. Psychologists have developed excellent proxies for measuring and studying subjective well-being directly, proxies that hold theoretical and empirical advantages over CBA. Because welfare is best understood as subjective well-being, and because it is now possible to measure subjective well-being directly, we argue that governments and policymakers should explicitly adopt a decision procedure based upon subjective well-being—well-being analysis. Well-being analysis is, without question, in its infancy. Nevertheless, we view it as the future of measuring the quality of human life.