March 2, 2009

Tort Damages and the New Science of Happiness

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Available at: https://works.bepress.com/peter_huang/1/
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* Thanks to Jane Baron, David Hoffman, Ed Deiner, Kareem Johnson, Alan Krueger, Leo Katz, Andrew J. Oswald, Donald Overton, Peter Spiro, audience members of the University of Missouri Law School, Midwest Law & Economics Association annual meeting, faculty workshops at Florida State University Law School, Rutgers University-Camden Law School, Temple Law School, and the Social Psychology Colloquium at Temple University, for helpful comments and suggestions.

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INTRODUCTION

The happiness revolution\(^1\) is coming to legal scholarship. What began as an empirical movement among psychologists and economists to study the causes of and reasons for happiness, has now spread to the legal domain. Since 2007, these legal hedonists have published a number of articles arguing that new empirical data on happiness requires changes to, or better explain, existing legal institutions.\(^2\)

One of the legal hedonists’ first targets has been jury awards for tort damages.\(^3\) For example, based on this new science of happiness, Cass

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\(^3\) Compensatory tort damages (as distinguished from punitive or nominal tort damages) are meant to restore an injured party to his or her pre-injury position. Compensatory damages restore both economic (or pecuniary) losses such as lost wages, loss of earning potential, and costs associated with medical care and rehabilitation and non-economic (or non-pecuniary) losses where there is no obvious external, objective measure for the loss. Non-economic damage awards include compensation for pain, suffering, mental distress, and loss of enjoyment of life. While there is little dispute about the calculation of economic damages, non-economic damages have engendered deep debate. See Section II, infra, for a
Sunstein, George Lowenstein, and Peter Ubel argue in two separate articles that the happiness data proves that juries are over-compensating tort victims for pain, suffering, mental anguish, loss of enjoyment of life, and other non-economic damages;\(^4\) Samuel Bagenstos and Margo Schlanger argue that awarding damages for loss of enjoyment of life devalues the experience of people with disabilities;\(^5\) and John Bronsteen, Christopher Buccafusco, and Jonathan Masur argue that settlement of tort lawsuits is easier with time because the plaintiff will believe that less money is required to make her whole.\(^6\)

Although these articles have different premises, their policy conclusions are reasonably similar: minimize the role of the jury in the tort system; lower jury awards for pain, suffering, and other non-economic injuries; and replace both with a damage guideline similar to workers’ compensation or criminal sentencing. But reform of the tort system is likely only a foothold for the legal hedonists. Future work is sure to take on different legal institutions. In fact, recent articles have already made revolutionary proposals to reform the taxation,\(^7\) corporate governance,\(^8\) and the criminal more fulsome definition of non-economic damages, a deeper discussion of the debate, and the legal hedonists’ role in that debate.

Of course, tort victims may also receive punitive or nominal damages. Punitive damage awards are granted as a means of punishing the defendant for outrageous conduct and deterring future conduct, not as a means to return a plaintiff to an ex ante position. In contrast, nominal damages are given as a symbolic award, and are designed to vindicate a right even if there is no compensatory loss.

\(^4\) Sunstein, supra note 2; Ubel & Loewenstein, supra note 2.

\(^5\) Bagenstos & Schlanger, supra note 2, at 106.

\(^6\) Bronsteen, et al., supra note 2, at 1538.

\(^7\) See e.g., Mirko Bagaric & James A. McConvill, Stop Taxing Happiness: A New Perspective on Progressive Taxation, 2 Pitt. Tax Rev. 1 (2005) (arguing that empirical happiness research data supports progressive taxes); Robert H. Frank, Progressive Consumption Taxation as a Remedy for the U.S. Savings Shortfall, 2 Economist’s Voice 1 (2005) (arguing that imposing a progressive consumption tax remedies a primary reason that Americans save so little, namely the pressure to keep up with community spending standards, that have been exacerbated recently by rising income and wealth inequality); Thomas D. Griffith, Progressive Taxation and Happiness, 45 B.C. L. Rev. 1364 (2004) (arguing that happiness research provides additional support for progressive taxation); Marjorie E. Kornhauser, Educating Ourselves towards a Progressive (and Happier) Tax: A Commentary on Griffith’s Progressive Taxation and Happiness, 45 B.C. L. Rev. 1399 (2004) (proposing a national tax literacy campaign to increase public knowledge about and acceptance of progressive taxation). But see Diane M. Ring, Why Happiness? A Commentary on Griffith’s Progressive Taxation and Happiness, 45 B.C. L. Rev. 1413 (2004) (examining issues raised by proposals to use happiness research in determining tax policy); David A. Weisbach, What Does Happiness Research Tell Us About Taxation?, 37 J.L. Stud. 293 (2008) (examining arguments for progressive taxation and concluding they are not supported by existing data or models about happiness).

\(^8\) See e.g., JAMES MCCONVILL, THE FALSE PROMISE OF PAY FOR PERFORMANCE:
In this article we want to both quell the growing revolution and redirect its energy. Our argument proceeds as follows. In Section I, we lay out arguments legal hedonists have made for reform of the tort system. In Section II, we place these arguments in the context of a broader debate about monetizing indefinite tort damages. We then show that the definition of non-economic damages used to support these arguments is at variance with the definitions used by courts and juries to describe pain, suffering, and loss of enjoyment of life. We conclude that scholars calling for the demise of jury awards understate the nuance that courts ascribe to non-economic damages.

In Section III, we analyze the early findings of the new science of happiness on which the legal hedonists rely. Based on a number of recent studies that cast doubt these early findings, we conclude that the legal hedonists rely on overstated and under-theorized data. In part, these issues arise from definitional problems for happiness researchers.

In Section IV we consider if the research on hedonic adaptation and affective forecasting really casts doubt on jury awards for non-economic damages. Lastly, we consider the implications for the new science of happiness in the reformation of legal institutions. Although this research...
may aid institutions and individuals in creating and sustaining happiness, we believe that people should take a more cautious approach in applying these findings to policy discussions. In particular we do not believe that research based on adaptation is ready for prime time.

I. THE LEGAL HEDONISTS

The legal hedonists rely in large measure on two early findings from the happiness literature to undergird their work. The first is hedonic adaptation. This refers to a finding that neither one’s life circumstances nor external life events have much lasting impact on long-term affect. That is, better-educated, prettier, and wealthier people are not necessarily happier. And people who win the lottery or become disabled, do not note a significant change in happiness over the long term. Although someone who becomes disabled may be less happy for a short period of time, in the long run, her happiness will return to its pre-injury state.

The second finding is that people overestimate how long and much their future affect (i.e., their emotional states) will change in response to life events. That is, people are poor forecasters of their own future affect’s

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12 See, e.g., Richard E. Lucas, Time Does Not Heal All Wounds: A Longitudinal Study of Reaction and Adaptation to Divorce, 16 PSYCHOL. SCI. 945, 945 (2005) (“Although people dread the prospect of becoming disabled, losing their job, or ending a relationship, much existing research suggests that they will not suffer long term emotional consequences from these events.”); Shane Frederick & George Loewenstein, Hedonic Adaptation, in WELL-BEING: THE FOUNDATIONS OF HEDONIC PSYCHOLOGY 302 (Daniel Kahneman et al. eds., 1999) (hereinafter WELL BEING); Philip Brickman et al., Lottery Winners and Accident Victims: Is Happiness Relative?, 36 J. PERSONALITY & SOC. PSYCHOL. 917 (1978).
13 In response to these findings, researchers hypothesized that people adapt psychologically like they adapt physiologically. Just as people initially react strongly to certain scents but soon learn to ignore the smell or initially react negatively to cold water but soon learn to tolerate it, the emotional system adjusts to current life circumstances and events to return to baseline levels. See generally Philip Brickman & Donald T. Campbell, Hedonic Relativism and Planning the Good Society, in ADAPTATION-LEVEL THEORY: A SYMPOSIUM 287 (M. H. Appley ed., 1971) (suggesting that individuals cannot sustain happiness over time because they live on a “hedonic treadmill”).
14 For overviews of affective forecasting, see George Loewenstein & David Schkade,
duration and intensity. Similarly, people do just as bad a job of predicting how life events will impact other people’s affect.

Data on hedonic adaptation and affective forecasting, however, are still being collected and are vastly under-theorized. Nonetheless, the legal hedonists have taken these findings to heart in an effort to reform existing legal structures. In this part, we critically examine claims made by the first wave of legal hedonists, which call for reform of the civil tort system. The main focus of these arguments has been elimination or reformation of non-economic compensatory damages like pain, suffering, mental anguish, or loss of enjoyment of life: that is, damages for losses where there is no obvious external, objective measure for the loss.

A. Sunstein

In Illusory Losses, Cass Sunstein argues that judges and juries overcompensate tort victims for non-economic damages, because “people greatly exaggerate the hedonic effects of many adverse events, largely because they do not anticipate their remarkable capacity to adapt to changes.” That is, first, according to Sunstein, “many apparently serious losses inflict relatively little in the way of long-term hedonic harm.” Second, he argues that because people neglect their ability to adapt, they will “expect far more harm than they actually experience.”

Sunstein then claims that just as individuals who have been injured make errors about how those injuries will impact their happiness, so too judges and jurors make errors when they evaluate non-economic damages in civil trials. According to Sunstein, judges and juries focus inappropriately only upon harms to plaintiffs. They do not consider the way in which plaintiff’s lives change post-injury, the relative health of the plaintiff, or the human capacity to adapt. As a result of these hedonic judgment (or


15 See infra Section III.
16 Sunstein, supra note 2, at S157-58.
17 Id. at S168. Sunstein concedes that individuals do not adapt to certain changes in life circumstances, like depression, chronic pain, and unemployment, but nonetheless contends that non-economic damages for most injuries are exaggerated. Id., at S167. In section III.B., infra, we provide a deeper discussion of the strength and ubiquity of hedonic adaptation.
18 Id.
19 See id. at S174.
affective forecasting) errors, Sunstein claims that judges and juries systematically grant excessive non-economic damages.  

Rather than suffer these errors, Sunstein contends that we should eliminate civil jury awards for non-economic losses. Instead, he claims the legal system should make two reforms to damage awards: (1) award damages for loss of capabilities and (2) award hedonic damages only from a “Civil Damages Schedule,” constructed by experts and designed to eliminate juror error from the process. In short, Sunstein concludes that determination of non-economic civil damage awards is a process that should be taken away from lay jurors and put into the hands of hedonic experts who would create guidelines for damage awards.

B. Ubel and Loewenstein

Peter Ubel and George Loewenstein also call for reform of the civil award system. In Pain and Suffering Awards: It Shouldn’t Be (Just) About Pain and Suffering, Ubel and Loewenstein argue that because individuals adapt to physical pain, fright, embarrassment, etc., it would be inappropriate to grant damage awards for pain and suffering in hedonic terms. According to Ubel and Loewenstein, emotional changes as a result of adverse events or life circumstances are fleeting because individual emotions adapt significantly or fully. As a result, they claim that courts should not include as an element of damage awards any amount that compensates for loss of happiness. Instead the authors’ claim, non-economic damages should take account of lost capabilities, lost emotional and experiential variety, and lost opportunities to make altruistic and moral overtures.

Further, in light of adaptation and affective forecasting errors, Ubel and Loewenstein, like Sunstein, argue that judges and juries are given too much discretion in awarding non-economic damages. They make a three-part proposal. First, they propose that a representative group of citizens should rank “all injuries from worst to least bad.” Second, they propose that legislatures create a cap for non-economic damages. Third, they propose

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20 See id. at S158. This claim, of course, is simply the observation that people make affective forecasting errors as a result of adaptation neglect and the focusing illusion of the litigation system. Id.
21 Id. at S158, S184-86.
22 See id. at S185.
23 See id., supra note 2, at S196.
24 See id., at S205-07.
25 Id. at S208.
26 Id. This argument, of course, ignores the obvious truth that most state legislatures have already enacted such caps.
that juries grant individuated awards by “positioning the particular damages of a specific plaintiff within the list of injuries ranked by they panel of citizens” and bounded by the legislative cap.\textsuperscript{27}

\section*{C. Bagenstos and Schlanger}

Bagenstos and Schlanger also argue that courts should curtail certain non-economic damages, but do so for reasons orthogonal to the arguments made by Sunstein, Ubel, and Loewenstein.\textsuperscript{28} Bagenstos and Schlanger argue that although people with disabilities tend to adapt to their conditions, and report as much enjoyment of life as non-disabled persons, people without disabilities tend to believe that disability makes life inherently less enjoyable.\textsuperscript{29} Thus, where non-disabled jurors and judges grant awards for loss of enjoyment of life, they “entrench the societal view that disability is inherently tragic, and encourage people with disabilities to see their life as tragedy.”\textsuperscript{30} Further, Bagenstos and Schlanger argue that awards for loss of enjoyment of life encourage paternalism and pity, distract from efforts to change societal views of disability, and may reinforce negative consequences of injury.\textsuperscript{31}

\section*{D. Bronsteen, Buccafusco, and Masur}

Bronsteen, Buccafusco, and Masur do not purport to do any of the normative work of the other legal hedonists, but, if believed, their work has significant implications for reforming civil litigation.\textsuperscript{32} In \textit{Hedonic Adaptation and the Settlement of Civil Lawsuits}, the authors argue that as a descriptive matter, where a plaintiff suffers an injury that does not permanently affect the happiness of an individual, settlement is easier for two reasons: (1) Over time, “the degree to which a plaintiff believes she has been ‘wronged’ will dissipate,” and therefore, (2) the plaintiff will accept a lower settlement offer because she will believe that less money is required to make her whole.\textsuperscript{33}

This argument seems purely descriptive, but if one accepts that this is an accurate description of settlement behavior, this article has deep normative

\begin{itemize}
\setlength\itemsep{0em}
\item\textsuperscript{27} \textit{Id.}
\item\textsuperscript{28} Bagenstos & Schlanger, \textit{supra} note 2.
\item\textsuperscript{29} \textit{Id.} at 773-74.
\item\textsuperscript{30} \textit{Id.}
\item\textsuperscript{31} \textit{Id.}
\item\textsuperscript{32} Bronsteen, et al., \textit{supra} note 2.
\item\textsuperscript{33} \textit{Id.} at 1538.
\end{itemize}
implications.\textsuperscript{34} It raises significant ethical questions for lawyers\textsuperscript{35} and raises important questions about the role of settlement in our civil system.\textsuperscript{36} Most importantly it raises questions about the importance of happiness in monetizing injury.\textsuperscript{37}

\section{E. Legal Hedonists and the Tort System}

Although these articles come to different conclusions about how best to reconstruct the tort system, these scholars agree that the system itself is broken. They believe that hedonic adaptation undermines or otherwise delegitimizes certain elements non-pecuniary jury awards.\textsuperscript{38} Further most believe that errors in affective forecasting render judges and juries unable to dole out awards for damages with affective components. Instead, they prefer two things: an award for capabilities and an administrative agency that provides guidance about awards with affective components.

There are problems with these arguments on three fronts. First, they understate the flexibility of the legal doctrines governing non-economic tort awards. Partly this is the result of a definitional disjunction between what the legal hedonists mean when they refer to non-economic damages and what courts mean when they use that term.\textsuperscript{39} Second, the arguments suffer from an empirically unjustified confidence in the strength and ubiquity of adaptation.\textsuperscript{40} Lastly, to whatever extent adaptation occurs, the legal hedonists focus only upon the post-adaptation positions of plaintiffs without any regard for the pre-adaptation evaluations of plaintiffs’ injuries.\textsuperscript{41}

\section{II. TORT DAMAGES}

The legal hedonists’ argument that tort victims are overcompensated because they adapt to their injuries arises in the shadow of a more global


\textsuperscript{35} See Huang, supra note 34, at 51.

\textsuperscript{36} See Swedloff, supra note 34, at 48.

\textsuperscript{37} See infra Section IV.A.

\textsuperscript{38} Bronsteen, Buccafusco and Masur may not believe that the system requires reformation, see supra section I.D., but they agree with Sunstein, Ubel, and Loewenstein that happiness is a key part of monetizing non-economic injuries.

\textsuperscript{39} See infra Section II

\textsuperscript{40} See infra Section III

\textsuperscript{41} See infra Section IV
controversy over the propriety of indefinite tort damages. While courts and juries have little difficulty calculating most elements of economic damages such as lost wages, loss of earning potential, and costs associated with medical care, the calculation of, and awards for, non-economic and punitive damages have engendered deep debate. In short, scholars and practitioners criticizing these indefinite damage awards argue that the awards are “too large, highly variable, and unpredictable;” jurors do not consider social consequences of the awards; and “jurors are biased against wealthy defendants.” In other words, they claim that jurors cannot provide consistent and logical non-economic or punitive awards, and thus should not be allowed to grant them without significant guidance.

The legal hedonists’ new claims dovetail with earlier arguments against non-economic and punitive damages. They argue that on the one hand, pain, suffering, and loss of enjoyment of life are illusory or fleeting injuries, because individuals will adapt to any negative emotional or physical state. On the other hand, they assume that jurors are incapable of granting these damages, because they cannot adequately predict the impact of the injury on the individuals.

But this argument depends in large part on a narrow understanding of non-economic damages and how courts grant them. In this part we will address the definitional disjunction between the legal hedonists and the courts.

A. The Legal Hedonists’ View of Non-Economic Damages

The legal hedonists use a narrow definition of non-economic damages. They claim that courts grant non-economic damages for changes in affect (emotional changes) without regard to adaptation. This belief is at

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42 There can, of course, be some difficulty calculating future damages, such as future potential earnings; reducing awards for future damages to present day lump sums; or forecasting potential future economic losses. See Edie Greene & Brian H. Bornstein, Determining Damages: The Psychology of Jury Awards 12 (2003). But by and large, most economic damage calculations are relatively easy. See id.


44 Greene & Bornstein, supra note 42, at 23, 24-26 (summarizing the arguments).

45 In response to these criticisms by scholars and practitioners, a number of states have placed legislative caps on the amount that jurors can award for non-economic damages. And the Supreme Court declared that there must be a logical relationship between the amount of compensatory damages awarded and the amount of punitive damages awarded. See BMW of North America v. Gore, 517 U.S. 559 (1996).

46 See infra, at note 151 and accompanying text for a more fulsome definition of affect.
variance with the meaning ascribed to different categories of non-economic damages by courts.

For instance, Ubel and Loewenstein claim that lawyers define non-economic damages in affective terms. They claim that lawyers believe that “pain and suffering, as applied to legal awards, should be interpreted literally – in hedonic terms.”\(^{47}\) In other words, because pain and suffering awards include damages for “intangible injuries such as fright, nervousness, grief, anxiety, and indignity,” all pain and suffering awards “are varieties of feeling states as opposed to objective outcomes.”\(^{48}\) This quick and easy definition of pain and suffering is consistent with the definition of non-economic damage used by others. For instance, Bronsteen, Buccafusco, and Masur clearly view non-economic damages in affective terms, claiming that the plaintiffs will adapt to “the losses for which these … types of damages are meant to compensate.”\(^{49}\)

Sunstein offers a slightly more nuanced definition, and pays lip service to the variety of non-economic damage categories, but ultimately defines non-economic damages in affective terms. Sunstein defines damages for pain and suffering and for loss of enjoyment of life as merely “captur[ing] the utility or (subjective) welfare losses produced by some adverse event.”\(^{50}\) Although he recognized that pain and suffering refers to damages for affirmative distress and the loss of enjoyment of life for “foregone gains, as when people are unable to engage in valued activities, such as athletics” – he nonetheless, uses one term to define all non-economic damages: “hedonic damages.”\(^{51}\) This definition implies that Sunstein believes that non-economic damages are inherently about providing compensation for changes in affect or happiness.\(^{52}\)

These definitions are faulty on several fronts. First, the arguments assume that non-economic damages are monolithic.\(^{53}\) Second, they assume

\(^{47}\) Ubel & Loewenstein, supra note 2, at S196.
\(^{48}\) Id. Although Ubel and Loewenstein restrict their main arguments to disputes about pain and suffering, in a footnote, they contend that their arguments “also apply to hedonic damages.” Ubel & Loewenstein, supra note 2, at S197, n.1. Thus, for purposes of their article, Ubel and Loewenstein seem to suggest that individuals will similarly adapt to pain, suffering, and hedonic damages and these damages are awards for changes in affect.
\(^{49}\) Bronsteen, et al., supra note 2 at 1538 n. 115
\(^{50}\) Sunstein, supra note 2, at S160.
\(^{51}\) Id.
\(^{52}\) Sunstein claims that he the term “hedonic damages” to mean all non-economic damages and to underscore the “connection with the emerging literature attempting to measure hedonic effects.” Id. But one suspects that Sunstein’s other motive is to paint these losses as connected solely to emotions.
\(^{53}\) Bagenstos and Schlanger address their arguments solely to hedonic damages, and indeed, explicitly call for compensation for physical pain and societal exclusion as a result of injury. Bagenstos & Schlanger, supra note 2, at 775. One presumes that they would also
that the awards are solely for changes in affect. Third, they assume that in granting the awards, judges and juries take no account of adaptation.

**B. Courts and Practitioners**

There are significant conceptual distinctions in the numerous types of non-economic awards. Not all of these awards are for changes in affective states, and none of these awards is granted without at least some implicit understanding of adaptation.

Common law courts have a long history of awarding plaintiffs damages for physical pain; mental suffering, which arises from awareness of the physical pain; mental distress which encompasses negative mental affect as a result of the injury, such as embarrassment, fright, worry, grief, or depression; loss of enjoyment of life; and loss of consortium, society, and companionship. These damages are by definition non-monetary and intangible. There are no vendor receipts for non-economic losses. But that does not mean that the damage awards are not for real losses or are not related to real theories of loss. Nor does the intangible, non-monetary nature of the loss mean that courts are purely compensating for emotional changes without regard to adaptation. In this section we review several categories of non-economic damages.

1. **Pain, Suffering, and Mental Distress**

There is a long history in Anglo-American law of compensation for pain and suffering. Courts have long distinguished “bodily pain” from “mental

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54 Even if these categories are treated as unitary for purposes of awarding damages, the harm each category describes is distinct.

55 The ALI divides non-economic tort into four broad categories: (1) tangible physiological pain at the time of the injury and during recuperation, (2) mental anguish and suffering felt both before and after a physical injury (3) emotional distress and long-term loss of love and companionship from the injury or death of a close family member, and (4) loss of enjoyment of life by victim of a tort. See 2 AMERICAN LAW INSTITUTE, REPORTER’S STUDY, ENTERPRISE RESPONSIBILITY FOR PERSONAL INJURY, at 199-200 (Philadelphia: American Law Institute, 1991).

56 1 DAMAGES IN TORT ACTIONS § 3.01[3][b], at 3-9 (Matthew Bender 2006).

57 The Western tradition of compensating an injured party for economic and non-economic losses traces its roots to Roman times. At least by 286 B.C, Roman law compensated free men and slaves for economic losses caused by negligence; and
Bodily pain is the physical pain felt as a result of an injury and the damage award compensates for the sensation of pain felt by the injured party at the time of accident and during recuperation. Mental anguish (or suffering), in contrast, refers to the emotional response to that pain, i.e. the negative affect that results from feeling pain, whether in the form of anxiety, anger, fear, hurt, etc.

Mental or emotional distress damages reflect negative emotions unrelated to physical pain. This might occur, for instance, when an individual has been defamed or witnessed the injury of a loved one (but has not been physically hurt themselves). In some jurisdictions, emotional distress also encompasses claims for loss of consortium, companionship, love, and affection.

These awards may be for affective states, if not “purely hedonic” in compensated free men for pain and suffering when injuries were inflicted intentionally. See Jeffrey O’Connell & Theodore M. Bailey, The History of Payment for Pain & Suffering, 1 U. Ill. L. F. 83, 87 (1972). In Medieval England, injurers made restitution to an injured party and the crown according to a schedule of bots – a sum the offender paid the injured party to buy back the peace – and wites – a penal fine “paid to the kind for breaking the peace … and to make amends for injuring another.” Id. at 87, nn. 38-39. These payments were made according to the severity of the injury. For instance, the bot for exposure of bone was 3 shillings, loss of an ear was 12 shillings, and loss of a thumb was 20 shillings. See id. at 88. This system included payment for non-economic losses, like shame and injured feelings. See id. By the end of the twelfth century, tribunals supplemented the bot system; and juries granted damages in addition to the scheduled bot payment. Although non-economic damages were not explicitly discussed, they were likely included as a general element of damage awards. See id. at 90. As under the bot system, individuals were compensated for slander, shame, and loss of honor. See id. at 90, n. 57 (citing cases).

Linsley v. Bushnell, 15 Conn. 225, 235 (1842). Although English courts of the seventeenth and eighteenth century seemed to descry awarding non-economic damages, they regularly awarded damages that could not be justified by the strict economic losses. See, e.g., Ash v. Lady Ash, 90 Engl. Rep. 526 (K.B. 1696). But at least by 1773, English courts explicitly allowed non-economic damages where a plaintiff experienced “great excruciating pain.” Scott v. Shepperd, 95 Eng. Rep. 1124 (K.B. 1773). And by 1798, following the award in Scott v. Shepperd, pleading books included claims for “excruciating pains and tortures both of body and mind.” O’Connell and Bailey, supra note 57, at 92 (citing 8 J. WENTWORTH, A COMPLETE SYSTEM OF PLEADING 437 (1798) and J. CHITTY, A TREATISE ON PLEADING (1809)). By the 1820’s and 30’s, courts in this country regularly allowed juries to grant damages for pain and suffering. See id., at 93. For instance, in rejecting a challenge to a tort verdict as allegedly excessive, the Massachusetts Supreme Court stated: “the plaintiff was exposed to the imminent peril of his life, to great bodily and mental suffering … we cannot say that the sum assessed by the jury … exceeds reasonable compensation.” Worster v. Proprietors of the Canal Bridge, 33 Mass. (16 Pick.) 541 (1835).

Today injured parties can universally recover for pain and mental suffering that results from physical injuries; however a party’s ability to recover for mental distress varies from jurisdiction to jurisdiction. See generally Jerome H. Nates, et al., Damages in Tort Actions § 4.01[2] (Mathew Bender 2007).
But there is no evidence that juries are instructed to, or actually do, evaluate these damage awards without implicitly or explicitly considering adaptation. To the contrary, when considering pain and suffering, juries are instructed that they may award a plaintiff damages that will reasonably compensate “for any past physical pain, as well as pain that is reasonably certain to be suffered in the future” and in doing so “should consider all the evidence bearing on the nature of the injuries, the certainty of future pain, the severity and likely duration thereof.” In considering “past pain,” or the “severity” and “duration” of the pain, juries must consider the variable and temporal notion of pain. Thus, juries necessarily consider whether plaintiffs pain, suffering, and distress have dissipated or persist; and, if the latter, at what level the injury persists. This is an explicit nod to adaptation.

Likewise, where juries consider non-economic damages as a unitary award, juries are instructed to “compensate … for any bodily injury and any resulting pain and suffering, … mental anguish, and loss of capacity for the enjoyment of life experienced in the past and which you find from the evidence he is reasonably certain to suffer in the future from the injury in question.” Again, there is a temporal nature to the instruction. Juries are asked to consider pain the plaintiff “experienced in the past,” and “certain to suffer in the future.” This implies that non-economic losses are not fixed and permanent. Thus, even to the extent that juries compensate for pain and suffering or mental distress in affective terms, they likely take into account the fact that physiological pain often fades.

We do not read the legal hedonists to argue that awards for non-economic damages are inappropriate per se. They simply argue that either juries ought to consider adaptation or are incapable of doing so (or both). As to the first argument, it is clear that parties will ask jurors to consider both the affective change and the likely adaptation. One can expect that plaintiffs will put evidence into the record to demonstrate their physical and mental pain. In response, defendants can and will most likely introduce evidence to show that plaintiffs are no longer in the physical or mental pain that they were immediately after the injury. As to the second, even if jurors have trouble anticipating the plaintiff’s adaptation, and thus make affective forecasting mistakes, this may not be a problem for the tort system. As we discuss, it is not clear that awards should be calibrated to post-adaptation injuries or that courts are overcompensating when the fail to account for

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60 That is, these awards are granted for changes in emotional states, but are not necessarily tied directly to some notion of happiness.


adaptation.\footnote{See infra Sections III.D. & IV.A.}

2. Loss of Enjoyment of Life

It is the other major category of non-economic damages—loss of enjoyment of life—to which Sunstein and Bagenstos and Schlanger address their main arguments.\footnote{Ubel and Loewenstein, of course, focus more explicitly on pain and suffering, but include a footnote related to damages for loss of enjoyment of life. \textit{See} Ubel & Loewenstein, \textit{supra} note 2, at §197, n.1.} As noted above, the legal hedonists suggest that hedonic damages are inappropriate because they compensate for a loss of happiness. This argument misconstrues the nature of awards for hedonic loss. While courts today use the term \textit{hedonic damages} interchangeably with the term loss of enjoyment of life,\footnote{\textit{Cf.} \textit{Foster v. Trafalgar House Oil & Gas}, 603 So. 2d, 284, 285 (La. Ct. App. 1992) (“While th[e] term [hedonic damages] is new to our jurisprudence, the concept is not.”). Victor E. Schwartz & Cary Silverman, \textit{Hedonic Damages: The Rapidly Bubbling Cauldron}, 69 B\textsc{rook} L. \textsc{rev} 1037, 1039 (2004) (“Prior to the mid- to late- 1980s, courts did not refer to hedonic damages, but instead awarded damages for ‘loss of enjoyment of life.’”). In the majority of jurisdictions, courts may instruct a jury that they can award damages for loss of enjoyment of life. The dividing issue is whether these damages are part of pain and suffering or can be awarded as a separate category of damages.} that does not mean that these damages are necessarily to be understood in affective or \textit{purely hedonic} terms. As history and common usage shows, courts use the term \textit{hedonic damages} to refer to awards for a loss of capabilities, not a loss of happiness.\footnote{25 N.E. 65 (Ind. 1890).}

The history of damages for loss of enjoyment of life traces back to the middle of the nineteenth century. Although nineteenth-century American courts regularly allowed damages for pain, suffering, and mental distress, courts tended to reject damages for loss of enjoyment of life as being too speculative. For example, in \textit{Columbus v. Strassner},\footnote{\textit{Id.} at 67} the Supreme Court of Indiana held that the trial court erroneously instructed the jury that it could take account of any “lack of personal enjoyment” suffered by the plaintiff as a result of the defendant’s conduct.\footnote{\textit{Id.} at 995.} The appellate court reasoned that a jury could not define personal enjoyment,” let alone assess a monetary value to a lack of such enjoyment.\footnote{\textit{Id.} at 995.} The court therefore stated that there would be an insuperable difficulty to the measurement of damages because...
of loss of “personal enjoyment.”

Similarly in *Belleview v. England*, a Kentucky appellate court held that in a slip and fall case the trial court erred in giving an instruction that the jury “might compensate the plaintiff for any diminution of his power to pursue the course of life he might otherwise have done.” The court held that such an instruction would lead the jury “into a field of speculation too indefinite to afford the basis of legal compensation.”

Many courts nonetheless rejected these early concerns, reasoning that awarding damages for loss of enjoyment of life provided complete compensation for injured parties. For instance, despite the Indiana Supreme Court’s decision in *Columbus v. Strassner*, Indiana Appellate courts at the turn of the twentieth century allowed juries to consider the fact that the plaintiff “was deprived of the pleasure and satisfaction in life that those only can enjoy who are possessed of a sound body, and of the free use of all of its members....”

By the 1930s a number of courts allowed damages under the category of loss of enjoyment of life for loss of capabilities. For example, in *Bodek v. Chicago*, the court affirmed a damage award of $50,000 for a woman injured in a car accident. In justifying the award, the court noted that the plaintiff was unable “to bear children naturally” and she was “deprived of the privileges and enjoyments common to people of her class.”

In *Daugherty v. Erie Railroad Co.*, the Pennsylvania Supreme Court affirmed a holding that the jury verdict in favor of a plaintiff was inadequate as a matter of law. The court reasoned that the jury had failed to recompense the plaintiff for his permanent disfigurement and his loss of taste and smell. With regard to the plaintiff’s appearance, the court stated “[t]o destroy that good appearance is to destroy one of the greatest treasures a person may possess.” The court was even more effusive when it described a loss from an inability to smell or taste: “One does not need to be a gourmand or gourmet to conclude that the consumption of food and drink
represents a not inconsiderable portion of man’s enjoyment of life. To be deprived of the capacity to enjoy flavorful dishes and palatable beverages is to be robbed of much of what goes into a rewarding existence. Even if this award contains an element of affective consideration, the underlying award is for loss of capabilities.

Likewise today, despite calling these damages “hedonic damages,” courts still compensate for loss of capabilities. For instance, the Third Circuit stated: “The component relating to loss of enjoyment of life in some respects duplicates the component of pain and suffering, but also represents a deprivation of the opportunity to participate in normal social, athletic, or recreational activities in which a person without [plaintiff’s] injury could engage.” Similarly, the Tenth Circuit held that in evaluating damages for loss of enjoyment of life, juries could consider whether the injury impaired the plaintiffs ability to enjoy “the occupation of [his] choice,” “activities of daily living,” “social leisure activities,” and “internal well-being.” In this regard, damages for loss of enjoyment of life have been awarded for loss of one of the five basic senses, an inability to continue to work in one’s work or avocation, interference with daily and family recreational activities, and interference with childbearing. “The range of activities upon which recovery has been based … [includes] gardening; sewing; playing with one’s children; woodworking; dancing; caring for an invalid spouse; walking or hiking for any considerable distance or time; engaging in normal family activities,” including family picnics and shopping; and working for one’s community or church. Thus, these are not awards for

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79 Id.
81 Smith v. Ingersoll-Rand Co., 214 F.3d 1235, 1245 (10th Cir. 2000) (applying New Mexico law).
83 See, e.g., Fleischmann v. Hanover Ins. Co., 470 So.2d 216 (La Ct. App. 1985) (compensating for inability to enter profession for which plaintiff had trained); McAlister v. Carl, 197 A.2d 140 (Md. 1964) (same); Winter v. Pennsylvania R.R., 68 A.2d 513 (Del 1949) (compensating a musician because of an inability to play privately and publicly even without pay).
purely hedonic losses.

Although courts use terms (“hedonic damages” and “loss of enjoyment of life”) that suggest affective components, the monikers are misleading. Courts grant loss of enjoyment of life damages not for hedonic or affective changes, but for loss of capabilities.

C. Definitional Disjunctions

In sum, the legal hedonists claim that the jury awards for pain, suffering, mental distress and loss of enjoyment of life are generally understood as damages for changes in affective state without regard to adaptation. This interpretation, however, may misinterpret the law. Damages for loss of enjoyment of life are, in fact, damages for lost capabilities or lost opportunities – a category of damages that these scholars support. Moreover, while damages for pain and suffering seem to be for changes in affective states, juries may consider past and future damages. Thus juries likely consider relevant post-injury adjustments in affective states of plaintiffs.

III. THE NEW SCIENCE OF HAPPINESS

The legal hedonists’ arguments rely not just on a narrow definition of non-economic damages, but also on a broad belief in the strength, power, and importance of hedonic adaptation. In this part we take a closer look at

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87 The term hedonic damages first appeared in 1985. Sherrod v. Berry, 629 F. Supp. 159 (N.D. Ill. 1985). In a wrongful death lawsuit, the victim’s father called Stanley Smith, a University of Chicago-trained economist, to testify about the damages suffered as a result of the death of his son. Id. at 162. In his expert report and his trial testimony, Smith did not opine on the economic loss that resulted from the son’s death, but rather, what he called “the hedonic value of life, separate from economic productive value of an individual.” Id. In defining the term “hedonic” as used in the phrase “hedonic value of life,” Smith testified:

It derives from the word pleasing or pleasure. I believe it is a Greek word. It is distinct from the word economic. So it refers to the larger value of life, the life at the pleasure of society, if you will, the life -- the value including economic, including moral, including philosophical, including all the value which you might hold life, is the meaning of the expression hedonic value.

Id. at 163. The trial court allowed this testimony over defendants’ objection, reasoning first that the deceased’s estate could sue for the loss of life and second that “the loss of life means more than being deprived of the right to exist, or of the ability to earn a living; it includes deprivation of the pleasures of life.”
hedonic adaptation and pay particular attention to the meaning and measurement of happiness. We first lay out the history of the research on hedonic adaptation and the recent studies that undermine the earlier findings. We then ask some critical questions about collecting data on happiness. Ultimately, we are sympathetic to the project of collecting data on happiness, and believe that such data are useful for some purposes. Nonetheless, we believe that the data collected in early studies do not support the notion of hedonic adaptation, and even if they did, they would not undermine jury awards for non-economic losses.

A. Early Theory and Evidence of Hedonic Adaptation

In its broadest sense, adaptation “refers to any action, process, or mechanism that reduces the effects (perceptual, physiological, attentional, motivation, hedonic, and so on) of a constant or repeated stimulus.” When a person steps from a dark building to the bright sunlight, he will likely squint and turn away from the sun, his pupils will contract, and neural processes will allow his brain to understand the information in the new setting. Each of these behaviors is part of the adaptive physiological process people use in reaction to bright light. Hedonic adaptation is the notion that people will also adapt to stimuli that are relevant to affect.

Psychologists have long hypothesized that physiological and psychological adaptation serve important evolutionary and biological functions. First, researchers theorized that adaptation protects humans by reducing the physiological and psychological impact of external stimuli. People sweat to reduce the impact of heat; our eyes dilate to reduce the impact of the sun. Similarly, our emotions may adapt to protect our bodies from “dangerous physiological and psychological reactions that occur with prolonged emotional states.” Hedonic states (hunger, thirst, pain, excitement, contentment) may guide humans to needs such as food or companionship. But prolonged periods in an excited emotional state could cause metabolic disease, hypertension, ulcers, or suppression of the immune system. Thus, according to this theory, individuals must adapt to prevent such damage. Second, adaptation protects humans by ensuring that changes

88 See Frederick & Loewenstein, supra note 12, at 302.
89 Id.
90 See id.
91 Id. at 303
93 See Frederick & Loewenstein, supra note 12, at 303.
94 Id.
in our environment receive our appropriate immediate attention. In general terms, stimuli that have existed in an individual’s environment are likely to pose less of a threat than new stimuli, which require greater attention. In other words, one becomes habituated to the old stimuli and reacts more strongly to new stimuli.\(^\text{95}\) The same may be true for emotional stimuli. Over time old stimuli receive less attention and are less important.

Thus, as psychologists have long realized and some modern critiques of studying emotions have only recently pointed out, emotions are likely fleeting and transitory. As comedians and others have often joked, whenever something happens be it good or bad, get over it because something else is going to happen soon enough. Indeed, as predicted by the theory above, it would be maladaptive for us to possess emotions that last forever or even for longer than is required to motivate us to respond to external stimuli. As 1978 economics Nobel laureate Herbert Simon pointed out, emotions focus our attention upon a specific item from a vast sea of sensory inputs and help direct and prioritize our scarce decision-making resources to address particular tasks requiring completion.\(^\text{96}\)

For these reasons, scholars long predicted the phenomenon and process of hedonic adaptation, but had no strong empirical support. In 1978, Philip Brickman and two coauthors set out to find that missing empirical data. In the oft-cited article, *Lottery Winners and Accident Victims: Is Happiness Relative?*,\(^\text{97}\) the authors found that lottery winners and controls did not significantly differ in their self-reported past, present, and future happiness ratings.\(^\text{98}\) Brickman and his coauthors conducted short interviews with 22 major lottery winners, 29 paralyzed accident victims, and 22 control subjects.\(^\text{99}\) They found that lottery winners and controls did not significantly differ in their self-reported past, present, and future happiness ratings.\(^\text{100}\) But, the study revealed that accident victims and controls did significantly differ in their past and present, but not future self-reported happiness ratings.\(^\text{101}\) In particular, the study found that accident victims exhibited a nostalgia effect of recalling their past as having been happier than controls did. The authors of the study themselves emphasized, “that the paraplegic rating of present happiness is still above the midpoint of the scale and that accident victims did not appear nearly as unhappy as might have been

\(^{95}\) Lucas, *supra* note 92, at 718.


\(^{97}\) Brickman et al., *supra* note 12.

\(^{98}\) Id. at 920, 921 tbl. 1.

\(^{99}\) Id.

\(^{100}\) Id. at 920, 921 tbl. 1.

\(^{101}\) Id. at 920-21, tbl. 1.
expected.” From this, Brickman and his colleagues concluded that individuals adapt to bad and good events and mis-predict the impact that these events will have on their future happiness.

But the Brickman study has deep methodological problems. As the authors themselves conceded:

> our data are sharply limited by the fact that they were obtained at a single point in time and do not trace out the hypothetical temporal course of adaptation. When we broke down our sample by the time that had elapsed since the lottery or the accident, we found no changes in their ratings. … A larger study, preferably longitudinal, is needed to specify the exact parameters that determine how adaptation level effects change over time.

Despite the fact that this study was a small sample and had significant methodological challenges, it spawned a new generation of scholars to think critically about happiness and to claim that people adapt to pleasant and unpleasant life circumstances. Early researchers, using the same cross-sectional methodology confirmed Brickman’s findings of adaptation.

Studies showed adaptation to, among other things, paraplegia, loss of limbs by child and adolescent cancer victims, dialysis, and loss of loved ones.

From this early theory and research on adaptation, scholars concluded that individuals had set levels of happiness that have little correlation to

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102 Id. at 921. They also noted that because:
   “10 paraplegics refused to answer the question of future happiness (versus 3 winners and 1 control), the results for this question must be viewed cautiously. If refusal to answer represents apprehension, inclusion of these respondents would have lowered the victim mean and perhaps the winner mean relative to the control group.” Id., at 920, 921 tbl. 1.

103 Id. at 920, 921 tbl. 1.

104 Lucas, supra note 92, at 718-19 [longitudinal study] (reviewing the primary studies claiming to support adaptation).


108 See Frederick & Loewenstein, supra note 12, at 313 (reviewing literature).
their life circumstances. Further, they concluded that individuals deviate from those set levels based on exogenous events, but return after some period of adaptation. In short, concluded these scholars, hedonic adaptation is “inevitable, and any change in life circumstance should never lead to lasting changes in happiness.”

B. Beyond Brickman: A More Thorough Look at Adaptation

Much has changed since Brickman and his co-authors conducted their original study of a small number of lottery winners and accident victims. For one thing, using the same method as those early studies, researchers found that adaptation is not as universal as once believed. Second, using nationally representative panel data, researchers have been able to track adaptation over time. These longitudinal studies report that adaptation is not as complete as previously claimed. More importantly, even where there is evidence of hedonic adaptation, later studies have shown that injured individuals would still prefer to live without injury. In this part we review this recent research and consider the ramifications on the theories of adaptation.

First, a number of studies concluded that adaptation is not ubiquitous. Even those who believe strongly in adaptation, concede that individuals do not adapt to certain injuries or disorders that cause chronic pain or result in progressive and degenerative disorders, such as rheumatoid arthritis or multiple sclerosis. “In contrast to paralysis victims, whose condition is

109 Researchers describe this adaptive ability alternatively as the hedonic treadmill, see Brickman & Campbell, supra note 12, the happiness set point, see Ed Diener & Robert Biswas Diener, Happiness: Unlocking the Mysteries of Psychological Wealth 145 (2008), a psychological immune system, see Daniel T. Gilbert et al., Immune Neglect: A Source of Durability Bias in Affective Forecasting, 75 J. Personality & Soc. Psychol. 617, 621-33 (1998), or simply as hedonic adaptation. See Frederick & Loewenstein, supra note 12. But each of these theories contains the same core set of beliefs, namely that individuals have a level of happiness that has little correlation to their life circumstances and that individuals may deviate from that level based on exogenous events, but return after some period of adaptation.


111 Frederick & Loewenstein, supra note 12, at 312; Craig A. Smith & Kenneth A. Wallston, Adaptation in Patients with Chronic Rheumatoid Arthritis: Application of a General Model, 11 HEALTH PSYCHOL. 151 (1992) (suggesting existence of a vicious cycle of helplessness appraisals, passive coping with pain, and psychosocial impairment preventing adaptation to rheumatoid arthritis); Richard F. Antonak & Hanoch Liveh, Psychosocial Adaptation to Disability and Its Investigation Among Persons with Multiple Sclerosis, 40 SOC. SCI. & MED. 1099 (1995) (reviewing literature about psychosocial
likely to remain constant over time, sufferers of such debilitating diseases must cope not only with the disabilities resulting from the cumulative deterioration they have thus far suffered but with new impairments as their diseases progress.\textsuperscript{112} Perhaps surprisingly there is also evidence that if an individual holds out some hope of recovering from a severe injury, the individual does not adapt to that injury.\textsuperscript{113} That is, even the prospect of recovery can impede adaptation.

Researchers have similarly found evidence that individuals do not adapt in non-injury domains.\textsuperscript{114} Recent studies concluded that individuals who get divorced,\textsuperscript{115} become unemployed,\textsuperscript{116} lose a loved one,\textsuperscript{117} or win the

adaptation to disability among individuals with multiple sclerosis, identifying research problems, and suggesting future research).

\textsuperscript{112} Frederick & Loewenstein, supra note 12, at 312.

\textsuperscript{113} See Ubel & Loewenstein, supra note 2, at $197, n.2; Frederick & Loewenstein, supra note 12.


\textsuperscript{115} Lucas, supra note 12. Here, Lucas tracked data from a longitudinal 18-year panel study of more than 30,000 Germans and found that satisfaction drops as one approaches divorce and then gradually rebounds over time. But, the return to happiness baselines is not complete. Furthermore, the association between divorce and life satisfaction results from both preexisting differences in people and lasting changes following divorce.

\textsuperscript{116} See e.g., BRUNO S. FREY, HAPPINESS: A REVOLUTION IN ECONOMICS 45-53 (2008) (summarizing how unemployment affects happiness). An early study of British people offered econometric regression evidence that is consistent with the common-sense notion that being unemployed is a major economic source of human distress and psychiatric stress. See Andrew E. Clark & Andrew J. Oswald, Unhappiness and Unemployment, 104 ECON. J. 648 (1994). The authors of this ground-breaking study concluded that: “joblessness depressed well-being more than any other single characteristic, including important negative ones such as divorce and separation.” Id., at 655.

Another longitudinal study found that not only current unemployment, but also past unemployment reduced the current well-being of individuals, whether those individuals are presently employed or not. See Andrew E. Clark et al., Scarring: The Psychological Impact of Past Unemployment, 68 ECONOMICA 221 (2001). In other words, past unemployment has a psychologically scarring effect on people, even if and after they get employed again. A 15-year longitudinal study also found that on average, people never completely returned to their pre-unemployment levels of satisfaction, even if and after they were re-employed; moreover, in contrast with expectations from adaptation theories, individuals who had been unemployed in the past did not react any less negatively to a new bout of unemployment. See Lucas et al., supra note 11. Three large-scale European longitudinal studies also found little evidence of habituation to unemployment in Europe in the 1990’s. See Andrew E. Clark, A Note on Unhappiness and Unemployment Duration, 52 APPLIED ECON. QUART. 291 (2006). Finally, two studies based upon data for over a quarter of a million people across twelve European countries and the United States found that average self-reported happiness is negatively correlated across time with just the rates of unemployment and inflation, and that unemployment is more harmful than inflation in terms of reducing subjective well-being. See Rafael Di Tella et al., Preferences over Inflation and
lottery on average, do not return to their previous happiness levels; instead such individuals experience significant, lasting changes in their subjective well-being.

Although each of these various domains is interesting for purposes of evaluating the ubiquity of adaptation, unemployment is of particular importance here. This is because people who become severely disabled as the result of a tort are often unable to find employment; that is, they become unemployed. While such individuals usually receive compensation for their lost income, empirical data of psychological scarring and permanent emotional harm due to unemployment even after such individuals become reemployed implies that such individuals also should receive additional compensation for their non-economic losses.

There are further questions about rates and completeness of adaptation from injury. Even for those disabilities and injuries for which individuals do adapt, adaptation is only important in the context of non-economic damages if it is relatively quick and relatively complete. Recent large-scale longitudinal studies, using nationally representative panel data, call into question the strength of adaptation in domains where researchers had already identified significant adaptation. These longitudinal studies offer the promise of a superior method of tracking adaptation.

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118 See Jonathan Gardner & Andrew J. Oswald, Money and Mental Well-Being: A Longitudinal Study of Medium-Sized Lottery Wins, 26 J. HEALTH ECON. 49 (2007). Gardner and Oswald tracked a random sample of 137 British individuals longitudinally and compared those who had won medium-sized lottery amounts of between £1,000 and £120,000 (in other words, up to approximately $200,000) with two control groups, those who had won nothing and those who had won small amounts. The study concluded that those who had won medium-sized lottery amounts two years after winning exhibited economically and statistically significant better psychological health and mental well-being.


120 Lucas, supra note 92, at 719. In a cross-sectional study, researchers collect data at a
In two recent studies, social scientists used longitudinal data to
determine whether individuals adapt to disability. In the first, Richard
Lucas tracked 2,272 British and 1,679 German participants both before and
after the onset of long-term disability. Using the German Socio-
Economic Panel, Lucas tracked 675 respondents who had been officially
classified as “having a reduced capacity to work or being severely
handicapped” for an average of 7.18 years before injury and 7.39 years after
injury. With the British Household Panel Study, Lucas tracked 272
participants for an average of 3.48 years before and 5.31 years after the
onset of injury. Not surprisingly participants in these studies reported
moderate to large drops in life satisfaction and corresponding increases in
psychological distress post injury. More surprisingly, although participants
reported partial adaptation to the effects of psychological distress, the life
satisfaction scores did not rebound over time.

In the second study, Andrew Oswald and Nattavudh Powdthavee
provided only modestly more support for hedonic adaptation to injury.
Utilizing data from the British Household Panel Survey, these scholars
concluded that individuals who become disabled go on to exhibit some
degree of recovery in mental well-being, but found that adaptation to severe
disability is far from complete. Oswald and Powdthavee found that self-

See generally, Oswald & Powdthavee, supra note 121.
reported happiness for those with severe disability rebounded less than thirty percent from their happiness nadir.\(^1\) Their findings for moderate disability are only slightly more impressive – a self-report of fifty percent adaptation.\(^2\) They concluded that the,

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\text{data do not support the idea that after tragedy there is routinely a return to the old level of well-being; here in illustrative calculations we estimate the degree of adaptation to be of the order of 30\% to 50\%. These results could be read alongside the old, and highly-cited, cross-section work of Brickman et al. (1978), which has come to be seen by many writers as claiming that human beings completely recover psychologically from even extreme disability.}\(^3\)
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Likewise, based upon longitudinal data, two economists recently concluded that people do not adapt completely to money. Betsey Stevenson and Justin Wolfers analyzed multiple, rich datasets and established a significant positive link between gross domestic product and average levels of subjective well-being across countries.\(^4\) In addition, their analysis found

\(^{1}\)
Id.

\(^{2}\)
Id.

\(^{3}\)
Id. at 1072.

\(^{4}\)
Betsey Stevenson & Justin Wolfers, Economic Growth and Subjective Well-being: Reassessing the Easterlin Paradox, 1 BROOKINGS PAPERS ON ECONOMIC ACTIVITY 1 (2008). Stevenson’s and Wolfers’ studies are a reaction to the research of Richard Easterlin, who initially raised and investigated the related question of whether raising the incomes of all increase the happiness of all. See Richard A. Easterlin, Does Economic Growth Improve the Human Lot? Some Empirical Evidence, in NATIONS AND HOUSEHOLDS IN ECONOMIC GROWTH: ESSAYS IN HONOR OF MOSES ABRAMOVITZ 89 (Paul A. David & Melvin W. Reder eds., 1974); Richard A. Easterlin, Will Raising the Incomes of All Increase the Happiness of All?, 27 J. ECON. BEHAV. & ORG. 35 (1995). His answer became famously known as the Easterlin paradox, the claim that no link exists between a society’s level of economic development and the average level of happiness in that society. Moreover Easterlin found a satiation level of national income beyond which a nation experienced no further increase of average subjective well-being. Lastly, Easterlin declared that he found no evidence that for any fixed point in time, higher levels of national income are correlated with higher level of average subjective well-being. These assertions become even more surprising upon realizing that for any fixed moment in time and in any particular country, richer individuals are happier than poorer ones.

Easterlin’s “paradox quickly became a social science classic, cited in academic journals and the popular media. It tapped into a near-spiritual human instinct to believe that money can’t buy happiness. As a 2006 headline in The Financial Times said, “The Hippies
no evidence of a satiation level of national income beyond which wealthier countries have no further increases in subjective well-being. They also demonstrated a powerful role for economic growth in raising happiness upon re-examining the relationship between changes in subjective well-being and income over time within countries. Finally, they showed that national income is correlated positively with not just happiness, but also such other indicators and types of positive affect as smiling and laughing, but appears uncorrelated to worry, sadness, boredom, depression, and anger.

Lastly, and importantly, apart from the lack of universality and strength of adaptation, it does not seem that adaptation is that important in monetizing injuries. Even when people report hedonic adaptation and a return toward pre-injury levels of happiness, they are still willing to sacrifice significant amounts of their life spans to return their lost function. For instance, in one study, researchers asked colostomy patients to imagine that they had 10 years left to live and then asked the patients how much of that time they would give up to live without a colostomy. On average, the


respondents reported that they would give up eighteen months of life to return to life pre-colostomy.\textsuperscript{132} In another study, dialysis patients reported a willingness to give up over half of their remaining years to have normal kidney function.\textsuperscript{133} These studies indicate first that people strongly prefer to be healthy, even if their day-to-day level of affect has returned to pre-injury levels. Further, the studies reveal that people care about things other than happiness or that current happiness measures do not capture something fundamental about well-being. A rebound in happiness or a decrease in psychological distress does not mean that people have overcome their injuries, learned to ignore their pain, or feel as healthy and complete as they did pre-injury. Because individuals care about things other than happiness, one’s level of perceived happiness may not be that important in monetizing injury.

These findings are not necessarily inconsistent with the earlier cross-sectional studies. As Lucas noted, these findings “only contradict the standard interpretation of the evidence.”\textsuperscript{134} The early data showed that “individuals with disabilities are moderately happy and do not have high rates of psychological disorders.”\textsuperscript{135} From this, researchers drew broad conclusions about hedonic adaptation. In light of the longitudinal studies, one could conclude instead that even if people with disabilities are relatively happy and free of psychological distress, they are not necessarily as satisfied with their lives as they were before their injury.

In light of this evidence, a number of scholars have called for the hedonic set point theory and the notion of a hedonic treadmill to be revised.\textsuperscript{136} Most importantly, one of the fathers of the new science of happiness, 2002 economics Nobel Laureate Daniel Kahneman recently publicly changed his views about hedonic adaptation, stating, in part:

\textsuperscript{133} See George Loewenstein & Peter A. Ubel, Hedonic Adaptation and the Role of Decision and Experience Utility in Public Policy, 92 J. PUB. ECON. 1795, 1799 (2008)
\textsuperscript{134} Lucas, supra note 11, at 726.
\textsuperscript{135} Id.
\textsuperscript{136} Ed Diener and his co-authors proposed five changes to the theory of the hedonic treadmill. First, an individual’s set point is not hedonically neutral. Second, individuals differ in their set points, partly based upon their temperaments. Third, one individual can have several happiness set points meaning that such different components of subjective well-being as pleasant emotions, unpleasant emotions, and life satisfaction can move in different directions. Fourth, and perhaps most importantly, subjective well-being set points can change under certain conditions. Fifth, individuals also differ in their adaptation to events, so that some people change their hedonic set point and others do not change their hedonic set point in response to a particular external event. Ed Diener et al., Beyond the Hedonic Treadmill: Revising the Adaptation Theory of Well-Being, 61 AM. PSYCHOL. SCI. 305 (2006).
The central question for students of well-being is the extent to which people adapt to circumstances. Ten years ago the generally accepted position was that there is considerable hedonic adaptation to life conditions. The effects of circumstances on life satisfaction appeared surprisingly small: the rich were only slightly more satisfied with their lives than the poor, the married were happier than the unmarried but not by much, and neither age nor moderately poor health diminished life satisfaction. Evidence that people adapt — though not completely — to becoming paraplegic or winning the lottery supported the idea of a “hedonic treadmill”: we move but we remain in place.

Social scientists rarely change their minds, although they often adjust their position to accommodate inconvenient facts. But it is rare for a hypothesis to be so thoroughly falsified. Merely adjusting my position would not do; although I still find the idea of an aspiration treadmill attractive, I had to give it up.

Nonetheless, as Lucas notes, there may be a way to reconcile this new longitudinal data with older cross-sectional studies. But for our purposes here, it is simply important to note that the story of adaptation is still being told and we do not know the strength or the ubiquity of hedonic adaptation, if it exists at all. One conclusion to draw is that happiness, life satisfaction, and well-being are quite complex. More importantly, these new data highlight that there is no clearly established theoretical consensus over why people adapt, at what rate they adapt, when they adapt or not, or what increases or decreases rates of adaptation. All of which points to a more

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138 See supra notes 134 - 135 and accompanying text.
139 Further complicating the notion of the hedonic treadmill are recent studies that suggest that individuals can increase their happiness with seemingly minor events. “[W]hile major events may not provide lasting increases in well-being, certain seemingly minor events – such as attending religious services or exercising – may do so by providing small but frequent boosts: if people engage in such behaviors with sufficient frequency, they may cumulatively experience enough boosts to attain higher well-being.” Daniel Mochon et al., Getting Off the Hedonic Treadmill, One Step at a Time: The Impact of Regular Religious Practice and Exercise on Well-Being, 29 J. ECON. PSYCHOL. 632 (2008)
140 While there is not yet one canonical theoretical model of hedonic adaptation, there are several recent models that provide alternative theories of the processes underlying the general phenomenon of hedonic adaptation. A pair of economists developed an axiomatic mathematical model of individual well-being incorporating cognitive factors. Itzhak Gilboa & David Schmeidler, A Cognitive Model of Individual Well-Being, 18 SOC. CHOICE &
cautious approach in applying hedonic adaptation in legal domains. Further, it suggests that it is too early to come to any definitive conclusions over the impact hedonic adaptation has on awards for non-economic damages.

C. Measurement Issues in Hedonic Research

It is not surprising that the story of hedonic adaptation is still incomplete. After all, our understanding of happiness and well-being is far from uniform or fulsome. Scholars across multiple disciplines have long studied happiness and well-being without reaching any sort of conclusion about the nature of those topics. If we cannot define happiness or well-being in any meaningful way, it may be that we have significant trouble measuring it. In this part we quickly look at the plurality of definitions for happiness and well-being, and look at the reasons for, and issues with, measuring the same.

1. Defining Happiness

From ancient philosophers to modern economists, scholars have considered the nature of happiness and well-being, placing this inquiry among the most high. See, e.g., JONATHAN HAIDT, THE HAPPINESS HYPOTHESIS: FINDING MODERN TRUTH IN ANCIENT WISDOM (2005) (examining from perspective of modern psychology and neuroscience advice on happiness from a number of Eastern and Western philosophies and religions); DARRIN M. MCMAHON, HAPPINESS: A HISTORY (2006) (surveying Western conceptions of happiness throughout history). A philosopher and sociologist recently compared modern empirical research about happiness with teachings in texts from three
and beyond considered happiness to be the whole aim of human existence. Yet, these same scholars cannot settle on one definition of happiness or well-being.

For instance, Bentham believed that a good society is built when individuals are allowed to maximize their pleasure and self-interest. Similarly, “[Thomas] Hobbes argued that happiness lies in the successful pursuit of our human appetites, and [the Marquis] de Sade believed that pursuit of sensation and pleasure is the ultimate goal of life.” Others, however, made a distinction between happiness and well-being. For these scholars the hedonic life led to little of importance. Aristotle, for instance, believed that hedonism represented a life enslaved to pleasure. Aristotle “posited instead that true happiness is found in the expression of virtue – that is in doing what is worth doing.” Put differently, happiness is better thought of as well being, and for Aristotle well-being was found in eudaimonia, flourishing and fulfilling your true nature as a human being. Still other philosophers believe that “a person would not be said to living a good life, no matter how happy she was, unless her life met a certain moral standard.” For these scholars, whether one is happy or flourishing is irrelevant. What matters is how one’s life stacks up against an objective list of things worth doing.


In Nichomachean Ethics, Aristotle proclaimed: “happiness is the meaning and the purpose of life, happiness is the whole aim and end of human existence.” See also David Myers, The Pursuit of Happiness 16 (1992). Bentham similarly stated

Nature has placed mankind under the governance of two sovereign masters, pain and pleasure. It is for them alone to point out what we ought to do, as well as to determine what we shall do. On the one hand the standard of right and wrong, on the other the chain of causes and effects, are fastened to their throne. They govern us in all we do, in all we say, in all we think.


Id. at 144.

See id. at 145.


Id.

142 See id. (“The research programs in social and personality psychology correspond roughly to the divisions among philosophical theories.”)
traditional theories of happiness into three categories: (1) hedonism, which views happiness as experiencing positive subjective feelings; (2) desire theory, which views happiness as fulfilling subjective desires; and (3) objective list theory, which views happiness as achieving items from some objective list of worthwhile pursuits or things. Seligman introduced the concept of authentic happiness to try to combine all three traditional theories of happiness. “Authentic happiness comes from identifying your most fundamental strengths and using them every day in work, love play, and parenting.”

In addition to philosophical and psychological taxonomies, the word happiness remains colloquially pluralistic. One might interpret the question: “Are you happy?” to mean: a) “Am I experiencing a positive emotion right now?”, b) “How have I been feeling lately?”, or c) “Am I happy with how my life is going overall?” Psychologists discuss this as the difference between affect, mood, and life satisfaction.

“Affect” refers to an experience of a feeling or an emotion. Affect can have a positive or negative valence and includes both states of high and low arousal. For example, happiness can refer to such “yippy skippy” notions as excitement and exuberance and such contemplative and meditative conceptions as contentment and serenity. Excitement and meditation might

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150 MARTIN E. P. SELIGMAN, AUTHENTIC HAPPINESS: USING THE NEW POSITIVE PSYCHOLOGY TO REALIZE YOUR POTENTIAL FOR LASTING FULFILLMENT, at xiii (2002). What is authentic about authentic happiness is that “[w]hen well-being comes from engaging our strengths and virtues, our lives are imbued with authenticity.” Id., at 9. Authentic happiness is thus about more than just experiencing a string of moments that feel good. An example of authentic happiness is being engaged in some activity that is valued, regardless of the presence or absence of positive subjective feelings. Christopher Peterson et al., Orientations to Happiness and Life Satisfaction: The Full Life Versus the Empty Life, 6 J. HAPPINESS STUD. 25, 27 (2005). Authentic happiness conceives of three kinds of happy lives: a pleasant life, pursuing pleasurable feelings; a good life, utilizing one’s character strengths to achieve gratification and engagement; and a meaningful life, utilizing one’s character strengths in the service of something larger than oneself. SELIGMAN, supra, at 262–63; Seligman & Royzman, supra note 149. A full life is a life that is at once pleasant, good, and meaningful. So, authentic happiness combines all three theories in the sense that a pleasant life conceives of happiness in a hedonic sense, a good life conceives of happiness in a desire sense, and a meaningful life conceives of happiness in an objective list sense. See generally Peter H. Huang & Rick Swedloff, Authentic Happiness & Meaning at Law Firms, 58 SYR, L. REV. 341, 345–46 (2008).

151 James A. Russell, A Circumplex Model of Affect, 39 J. PERSONALITY & SOC. PSYCHOL. 1161 (1980) (describing the circumplex model of affect, which graphically depicts affect living inside a two dimensional plane with the horizontal axis depicting the valence dimension and the vertical axis indicating the arousal dimension).
both produce positive valence to affect, but would be in opposite quadrants of an arousal scale. The word “mood,” in contrast, means a relatively long lasting, affective or emotional state. Moods tend to be less specific, usually less intense, less likely to be triggered by specific events or stimuli, and last longer than emotions.\textsuperscript{152} A person’s “life satisfaction” measures a person’s own perceived level of subjective well-being. In contrast to affect or mood, life satisfaction asks people to assess their lives overall.

Parenting illustrates aptly how affect, mood, and life satisfaction differ because the same activity or episode of parenting can entail self-reported measures of affect, mood, and life satisfaction that differ in their valence, intensity, or arousal. For example, few parents want to be awakened by a screaming baby in the middle of the night. This could induce an immediate feeling of anger or annoyance. Such an episode could raise anxiety about the lack of sleep, or countless other negative emotions. Simultaneously, a parent could be in a reasonably good mood for days before or after that event. Even during the event itself, despite causing some disruption in mood, the screaming baby can not dampen excitement over a new job, or a feeling of accomplishment from a home-repair project. Moreover, even though taking care of a screaming baby may not create positive affect, simply holding the child might increase overall life satisfaction; and successfully getting a baby to stop crying and screaming may increase a parent’s overall feeling of well-being.

In short, happiness and well-being are related, but not synonymous concepts in philosophical and social science inquiries. That relatedness has implications for research on happiness.

2. Measuring Happiness

Given the variability of meanings for the term happiness, it comes as no surprise that there are a number of concerns about its measurement. Researchers have a difficult task. In part, they must determine how different daily activities impact affect. That is, how does the operation of daily life impact an individual’s short-term emotions? Is someone happy, anxious, excited, sad, disappointed, etc. at any given time of the day? Researchers must also try to quantify intermediate and long-term emotional responses. How are mood and overall life satisfaction affected over time by life events and changes in life circumstance?

But more importantly, researchers must overcome the objection that it is impossible to measure happiness at all or at least objectively.\textsuperscript{153} Ed Diener

\textsuperscript{152} ROBERT E. THAYER, THE BIOPSYCHOLOGY OF MOOD AND AROUSAL (1989).

\textsuperscript{153} See Ed Diener, Subjective Well-Being: The Science of Happiness and a Proposal for a National Index, 55 AM. PSYCHOL. 34 (2000). See also Jan Cornelius Ott, Happiness,
and other happiness researchers respond to this concern by arguing that happiness is not objective, it is subjective and for each person to define the characteristics of a good life. According to Diener, “this subjective definition of quality of life is democratic in that it grants each individual the right to decide whether his or her life is worthwhile.”154 Therefore, according to such researchers, each individual is capable of answering for herself how happy she is. She and only she can tell us her “subjective well-being.”

Diener popularized the Satisfaction with Life Scale to measure subjective well-being. In that survey individuals are asked to rate on a seven point scale the degree to which they agree or disagree with five related statements: “In most ways my life is close to my ideal;” “The conditions of my life are excellent;” “I am satisfied with my life;” “So far I have gotten the important things I want in life;” and “If I could live my life over, I would change almost nothing.”155 Alternatively, researchers often measure subjective well-being with a single question, such as: “All things considered, how satisfied are you with your life as a whole these days?” or “Taken all together, would you say that you are very happy, pretty happy, or not too happy?”156

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154 Id. at 34; see also Joclyn M. Norrish & Dianne A. Vella-Brodrick, Is the Study of Happiness a Worthy Scientific Pursuit?, 87 SOC. INDICATORS RES. 393, 400 (2007).
155 Ed Diener et al., The Satisfaction with Life Scale, 49 J. PERSONALITY ASSESSMENT 71 (1985).
156 See Alan B. Krueger & David A. Schkade, The Reliability of Subjective Well-Being Measures, 92 J. PUB. ECON. 1833, 1835-36 (2008) (providing an overview of the literature). Researchers are also interested in gathering information about daily affect, as opposed to overall life satisfaction. Two popular means of measuring affect are the Experience Sampling Method (“ESM”) and the Day Reconstruction Method (“DRM”). In the ESM, participants are prompted at random times throughout the day to record what they are doing and how they feel. Although expensive and difficult to implement, this method minimizes the impact of faulty memory on the results. ESM is known as the gold standard of measuring affect in real-time, but can be very costly to researchers and very intrusive to respondents. In contrast, the DRM asks participants to retrospectively categorize and summarize a day’s worth of events on a number of different scales. Id. at 1834.

Clearly these subjective well-being studies are measuring something. But what exactly do they measure? As Diener notes, these are subjective measures, based on self-defined notions of satisfaction.\(^{157}\) That suggests a preference satisfaction, or hedonic measurement. The single question measure elicits a “global evaluation of one’s life.”\(^{158}\) Although the questions “how satisfied are you with your life” or “how happy are you” suggest hedonic preference satisfaction and subjective assessments, the questions also seem to have eudaimonic aspects.\(^{159}\) The single question elicits a response to preference satisfaction, but it might also elicit a sense of whether a person believes that she is flourishing. In the multi-questions surveys, questions like “I am satisfied with my life” or “So far I have gotten the important things I want in life,” require that respondents consider her preference satisfaction and subjective judgments. Other questions ask respondents to consider a more complete picture of flourishing. These questions also seem to ask about affect or mood on the one hand and life satisfaction or subjective well-being on the other. Thus, there seems to be an attempt to measure a multi-faceted notion of happiness and well-being.

But even if surveys perfectly captured all of the meanings of happiness, there would still be concerns about whether the measures capture unbiased reports. Not surprisingly, measures of subjective well-being and other hedonic measures can be contaminated by a number of biases. For instance, (1) people can exaggerate their self-reported subjective well-being; (2) global and overall assessments of happiness are unduly influenced by momentary fluctuations in mood that result from weather or finding a dime on a photocopier before responding to questionnaires;\(^{160}\) (3) people have an automatic tendency to normalize their answers to questions based upon implicit norms of comparison,\(^{161}\) and (4) even question order in multi-question surveys can influence reported answers.\(^{162}\)

\(^{157}\) See Diener, supra note 153, at 34.

\(^{158}\) Krueger & Schkade, supra note 156, at 1835.


\(^{162}\) See generally Betsey Stevenson & Justin Wolfers, Happiness Inequality in the United States, 37 J. LEGAL STUD. S33 (2008).
“bounded labeled scales” – such as a 7-point semantic differential scale ranging from very unhappy (1) to very happy (7) or a three-category scale consisting of not too satisfied (1), satisfied (2), and very satisfied (3) – are susceptible to a measurement bias: a tendency to renorm—that is, interpret those scales differently in different contexts. Hence, they will not differentiate between actual and spurious relativisms. Thus, there is some concern that data collection methods are unreliable.

Nonetheless, three categories of empirical findings provide support for the reliability of happiness data. First, there is recent empirical data indicating that self-reported happiness is positively correlated with observable positive behavior such as Duchenne smiling, and verifiable neurological activity such as greater left than right superior frontal brain activation. Second, empirical happiness research data is consistent with expected correlations, such as findings that income and happiness are correlated; health and happiness are correlated; trust and happiness are correlated; and unemployment and unhappiness are correlated. Third, a pair of economists recently tested for the reliability of subjective well-being

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164 Paul Ekman et al., Smiles When Lying, 54 J. PERSONALITY & SOC. PSYCHOL. 414 (1988) (finding that subtle differences in aspects of facial expression differentiated types of smiling); Paul Ekman et al., The Duchenne Smile: Emotional Expression and Brain Physiology II, 58 J. PERSONALITY & SOC. PSYCHOL. 342 (1990) (demonstrating that self-reports of happiness are correlated with Duchene smiles, which are smiles that involve orbicularis oculi muscles near our eyes); Kahneman & Krueger, supra note 156, at 9, tbl 1.

165 Nathan A. Fox & Richard J. Davidson, Patterns of Brain Electrical Activity During Facial Signs of Emotion in 10-Month Old Infants, 24 DEVELOPMENTAL PSYCHOL. 230 (1988) (finding that 10-month infants display greater activation of their left rather than right frontal area of their brains upon seeing videotapes of actresses exhibiting happy facial expressions); Heather L. Urry et al., Making A Life Worth Living: Neural Correlates of Well-Being, 15 PSYCHOL. SCI. 376 (2004) (finding that for a sample of 84 adults ranging in age from 57 to 60 higher self-reported happiness was correlated with greater left than right superior frontal activation).

166 Angus Deaton, Income, Health, and Well-Being around the World: Evidence from the Gallup World Poll, J. ECON. PERSP., Spring 2008, at 53 (finding based upon data from one hundred and thirty two countries that a strong relationship between average life satisfaction and per capita national income, and high-income countries report greater life-satisfaction than low-income countries).

167 David G. Blanchflower & Andrew J. Oswald, Hypertension and Happiness across Countries, 27 J. HEALTH ECON. 218 (2008) (finding that happier nations report systematically lower levels of hypertension based upon data from sixteen countries).


169 See, e.g., Lucas et al., supra note 11
measures over a two week period in a sample of 229 employed women and
found that both overall life satisfaction and experienced affect derived from
the DRM had test and retest serial correlations ranging from 0.50 to 0.70.170
In particular, the correlation of responses about net affect (which is defined
as duration-weighted positive affect less negative affect) taken two weeks
apart was 0.64. The correlation of responses about life satisfaction taken two
weeks apart was 0.59.

Given this, some researchers believe that hedonic research is reliable and
consistent. For example, Loewenstein and Ubel and their various co-authors
conducted research which: (1) tested for and could not find any evidence
that Parkinson’s disease patients exaggerated their subjective well-being;171
(2) tested for and found identical patterns of both adaptation and under-
prediction of such adaptation for both global and momentary subjective
well-being measures;172 and (3) tested for and found existence of scale
recalibration,173 but also misprediction of affect, even after controlling for
that scale recalibration.174 Based upon data from these and other studies that
Loewenstein and Ubel have conducted, they concluded “that the surprising
emotional stability people show across a wide range of circumstances
reflects true adaptation to those circumstances and is not a mere result of
response bias or scale recalibration.”175

But even if these surveys reliably measure happiness and adaptation, it is
not clear that they are capturing important elements of well-being. “[T]here
are many things that matter to people in their lives independent of … their
long-run emotions.”176 In addition to, or quite possibly even completely
besides, the presence of positive affect and the absence of negative affect,
people want additional desiderata: (1) capabilities,177 (2) emotional and
experiential variety, as captured in the famous sentiment that it would be
better to be a dissatisfied human being rather than a satisfied pig,178 and (3)

170 Krueger & Schkade, supra note 156.
171 Dylan M. Smith et al., Why Are You Calling Me? How Survey Introductions
172 Jason Riis et al., Ignorance of Hedonic Adaptation to Hemo-Dialysis: A Study
173 Peter A. Ubel et al., What is Perfect Health for an 85-Year Old?: Evidence for
Scale Recalibration In Subjective Health Ratings, 43 MED. CARE 1054 (2005).
174 Heather P. Lacey et al., Unbelievably Happy: Exploring Whether Scale
175 Loewenstein & Ubel, supra note 133, at 1801.
176 Ubel & Loewenstein, supra note 2, at $205.
177 AMARTYA SEN, COMMODITIES AND CAPABILITIES (1999); MARTHA NUSSBAUM,
178 This was first captured by JOHN STUART MILL, UTILITARIANISM (1863), and later
endorsed by JAMES GRIFFIN, WELL-BEING: IT’S MEANING, MEASUREMENT, AND MORAL
IMPORTANCE (1989); JOSEPH RAZ, ETHICS IN THE PUBLIC DOMAIN: ESSAYS IN THE
altruistic and moral experiences, such as taking care of one’s kids, elderly parents, or a bedridden spouse or close relative. Individuals might also want emotional responses beyond happiness to feel that they are living well. In particular, people may care about: (1) meaning, as understood in at least one of these four possible ways: resolving uncertain preferences, extending oneself either socially or temporally, asserting one’s free will, or constructing autobiographical narratives; and (2) brief episodes of intense emotions, such as momentary spikes of sorrow and grief over the loss of loved ones that can strike at any particular time.

These issues require us to reconsider conclusions reached in earlier research on happiness and hedonic adaptation. But even if one assumes that researchers are perfectly measuring individual happiness, recent studies undermine the claim that hedonic adaptation is complete or ubiquitous. Moreover, even if there is some evidence of hedonic adaptation post injury, individuals would sacrifice significant portions of their lives to be without an injury. Measurement uncertainties and evidence that even individuals who adapt still desire to be injury free implies that how much hedonic adaptation impacts non-economic damages is unclear.

D. Inaccuracies in Affective Forecasting

If hedonic adaptation is less important than the legal hedonists claim, errors in affective forecasting might still be a significant barrier to proper damage awards. In other words, even if the many concerns that we raised above cast doubt on the strength, ubiquity, or importance of hedonic adaptation, those concerns have no such impact on the other surprising finding from happiness research, namely that people are poor predictors about how precisely events will impact their happiness. That finding is still robust; and, in fact, may better explain the meaning of some of the early

\[\text{MORALITY OF LAW AND POLITICS (1994); SHELLEY KAGAN, NORMATIVE ETHICS 32 (1998).}\]

\[\text{179 Ubel & Loewenstein, supra note 2, at 8207.}\]

\[\text{180 George Loewenstein & Peter A. Ubel, \textit{Hedonic Adaptation and the Role of Decision and Experience Utility in Public Policy}, 92 J. PUB. ECON. 1795, 1802-04 (2008).}\]

\[\text{181 Niklas Karlsson et al., \textit{The Economics of Meaning}, 30 NORDIC J. POL. ECON. 61 (2004).}\]

\[\text{182 Likewise, there is a debate over the best way to analyze data that is collected in these surveys. Economists prefer to assume that self-reports of happiness are merely ordinal rankings and therefore not comparable across individuals, while psychologists and sociologists typically view self-reports of happiness as being cardinal rankings and therefore comparable across people. Ada Ferrer-i-Carbonell & Paul Frijters, \textit{How Important is Methodology for the Estimates of the Determinants of Happiness}, 114 ECON. J. 641 (2004). This difference in whether to interpret self-reports of happiness as containing ordinal versus cardinal information implies the use of correspondingly different sorts of statistical regression analysis models. Id., at 641.}\]
cross-sectional studies. We quickly review the literature on affective mis-forecasting. We conclude that even if affective mis-forecasting presents a problem for jury deliberation (which is still open for debate), there may be means via introduction of evidence to mitigate these problems.

Studies have shown that individuals are poor predictors of how life events—like winning the lottery or sustaining an injury—will change their overall life satisfaction and future affective states. Although they might predict whether a particular event would lead to a mix of positive or negative emotions, individuals will likely not predict with any precision the specific mix of emotions they are going to feel ex ante, especially when events produce a combination of positive and negative emotions. More importantly, individuals do a particularly bad job predicting the intensity and duration of any resulting emotional state. Not surprisingly people do just as bad a job of predicting how exogenous events will affect other people.

There are a number of reasons for this mis-prediction. For example, when asked to predict how an event will impact their happiness, individuals focus on the event to the exclusion of the rest of one’s life circumstances that may mitigate the impact of the event. Further, individuals may not have familiarity with the event prompting the emotional experience and thus may not be able to predict with any precision how it would really impact someone’s life. More importantly, individuals cannot properly draw on past emotional experiences as a guide because they systematically misremember emotional experiences, which, ultimately distorts their ability to predict future emotional experiences.

A prototypical example of this research is found in the 2000 election. George W. Bush supporters overestimated how happy they had been when the U.S. 2000 Presidential election had been determined, and four months later Al Gore supporters overestimated how unhappy they had been when the U.S. 2000 Presidential election had been determined.

We certainly have no quarrel with the research findings of the affective forecasting literature. But, we do believe there are several underappreciated aspects of these results.

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183 See Wilson & Gilbert, supra note 14, at 348.
184 See generally Blumenthal, supra note 14, at 166-67; Wilson & Gilbert, supra note 14, at 347-51.
185 A large body of research documents people’s tendencies to underestimate their own and others’ abilities to hedonically recover. See GILBERT, supra note 14; WILSON, supra note 14.
186 Blumenthal, supra note, at 174.
188 Id.
First, while people’s overestimation of the duration and intensity of affect might seem undesirable from the point of accuracy of estimation of affect, such inaccuracies are highly adaptive in terms of powerfully motivating people to undertake activities to avoid negative affect and seek out positive affect. After all, inaccurate affective forecasts motivate people to both avoid becoming tort victims and seek out damages from tort litigation. In the jury context, researchers assume that because individuals inaccurately forecast their own future affect, they will also be unable to accurately forecast someone else’s, future affect, such as that of a plaintiff. But if tort defendants and plaintiffs believe that juries inaccurately forecast plaintiffs’ affect just as plaintiffs do, then such beliefs motivate potential defendants to not cause torts and plaintiffs to sue for damages that in turn provide additional deterrence. This observation raises three related questions: (a) How and should tort damages balance the compensation of actual plaintiffs and the deterrence of potential defendants? (b) If the compensation of actual plaintiffs is one goal of tort damages, then does that entail compensation of affect ex ante, ex post, or some possibly weighted average over time? (c) Are there systematic differences between what defendants, juries, and plaintiffs forecasts about plaintiffs’ affect?

Second, although inaccuracies of affective forecasting can lead people to make choices that fail to result in their being lastingly happy, these inaccuracies underlie a lot of people’s consumption and personal investment. In other words, much of Main Street and Wall Street are fueled by people mistakenly believing that increased consumer expenditures and stock purchases lead to increased permanent happiness. Indeed, many advertising campaigns and marketing strategies encourage, foster, and reinforce particular types of inaccurate affective forecasting. Although inaccurate affective forecasting can be individually suboptimal in terms of experienced happiness, inaccurate affective forecasting by individuals can generate financially desirable spillovers and create happiness externalities for others.

Third, many events to which people have a tendency to hedonically adapt nonetheless can and indeed will produce long lasting if not permanent and often irreversible outcomes that in turn produce further affective

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consequences. For example, George W. Bush clearly made numerous policy decisions that Al Gore would not likely have chosen. Many people believe that such choices have and will cause negative results that are going to last for a long time if not a generation. Presidential elections impact people’s affect not only when those results are determined, but also for the length of the President’s tenure and possibly much longer thereafter. Voters care about who is President because they realize that a President can make a difference for better or worse in terms of many decisions including those about cabinet officials, domestic programs, economic policies, executive orders, federal judicial appointments, foreign affairs, and national priorities. The happiness or unhappiness that supporters of particular candidates feel upon learning the results of Presidential elections can reflect not only their momentary affect but also their expected future total affect.

In contrast with the view that emotions are biases, legal scholar Dan Kahan and psychologist Paul Slovic proposed that emotions can reflect cultural evaluations of risk.\textsuperscript{191} We share this viewpoint which “implies that in order to protect risk regulation from becoming culturally and morally impoverished, regulatory authority should not be delegated solely to experts.”\textsuperscript{192} Similarly we believe that in order to protect adjudication from becoming culturally and morally impoverished, tort damages must not be delegated solely to experts.

IV. HAPPINESS AND JURIES

Given our skepticism about the nature and power of hedonic adaptation, it is no surprise that we do not find it as a significant barrier to jury awards for non-economic damages. In Sections II and III, we concluded that the legal hedonists understate the way the tort system compensates injured parties and overstate the power, ubiquity, and importance of adaptation. In this Section, we first tie together the reasons that theories about hedonic adaptation do not justify a complete or partial dismantling of the system of jury awards for non-economic damages. We then consider how well juries evaluate non-economic damages even in light of affective forecasting errors. We finally turn to a brief examination of some other issues related to jury awards.

A. Hedonic Adaptation and Non-Economic Damages

As we discussed in detail above, scholars have suggested that hedonic adaptation undermines the theoretical underpinnings of non-economic damages, and concomitantly jury awards for those damages. In short, these scholars argue that (1) non-economic damage awards are granted for changes in affect, (2) changes in affect are fleeting, because people adapt, and thus (3) non-economic injuries are illusory and the damage awards unfounded. As discussed above, we have a number of concerns with this theory. First, it is not clear that happiness is relevant to monetizing non-economic injuries. Second, adaptation may not be strong enough or ubiquitous enough to impact all non-economic injuries. Third, even if happiness is relevant to monetizing non-economic injuries and adaptation is strong and ubiquitous enough to impact tort victims, it is not clear that we should prioritize a plaintiff’s feeling of loss post-adaptation over her pre-adaptation feeling of loss. Fourth, and related, privileging ex post experienced feelings over ex ante feelings involves normative and paternalistic judgments. Lastly, the system does not simply compensate for changes in affect. Rather, the system provides damages for lost capabilities, lost options, and changes in affect with an eye to adaptation.

First, and most importantly, it is possible that the data on happiness plays only a minor part in monetizing non-economic injuries. Even questions designed to elicit rankings of subjective well-being and life satisfaction as opposed to measuring mere affect, may be missing the most fundamental parts of the human existence. They may not accurately measure whether people feel meaning or fulfillment, experiential and emotional variety, or a sense of achievement despite negative affect. That is, the data themselves may be flawed and unhelpful in the context of monetizing non-economic tort damages. Indeed, if, as Ubel and Loewenstein reported, injured people are willing to give up significant portions of their remaining years to live without injury,\(^\text{193}\) happiness may not be that important a factor to those living with injury. Or, at a minimum, those who are living with injury care about far more than happiness and life-satisfaction. Moreover, there can be no real claim that injuries are not causing non-economic losses or that those non-economic losses are somehow illusory.

Second, even to the extent that one believes that the happiness data is important to the process of monetizing injury, hedonic adaptation is not nearly as ubiquitous or strong as once believed; and certainly not a powerful enough force to justify the conclusion that non-economic awards are

\(^{193}\)See supra notes 132 - 133 and accompanying text.
illusory. As we discussed, there is significant data suggesting that individuals do not adapt to a number of life circumstances. People do not adapt to diseases or illnesses that get progressively worse or where there is a hope of recovery. Moreover, in non-injury domains people do not adapt to divorce, unemployment, or loss of a loved one. Thus, where someone’s injury gets progressively worse or where an injury leads to unemployment or death of a loved one, her happiness will not necessarily return to pre-event levels. Moreover, recent studies have undermined the earlier belief in the strength of adaptation. Recent longitudinal studies suggest that even where there is evidence of adaptation to injury, individual happiness and life satisfaction may only make modest returns. That is, even if people who suffer moderate or significant injuries feel less distress over time, they do not necessarily feel happier or more satisfied with their life. As such, hedonic adaptation may not be as strong as once thought. If hedonic adaptation is not strong or ubiquitous, it may not have a role in monetizing injury.

Third, in arguing that non-economic losses based on affect are illusory, the legal hedonists claim that one should judge injury post adaptation. But it is unclear why our legal system normatively should consider losses to which people adapt as illusory.

To the contrary, to force optimal investment in precaution and to compensate fully, we must consider the pre-adaptation injury. Suppose that immediately after an injury, a plaintiff’s pain and suffering are valued at $1 million. Suppose also that pre-injury, the plaintiff enjoyed skiing and writing, but can do neither after the injury. This loss of enjoyment of life may also be valued at $1 million. Thus, immediately after the injury, the plaintiff had non-economic losses of $2 million. If, over time, the plaintiff adapts to her pain and her suffering dissipates to nothing, one who believes that damages should be valued post-adaptation might argue she is entitled only to $1 million in non-economic damages. And, more starkly, one who believes that happiness is the only way to judge non-economic losses, would argue that she is entitled to nothing. But this would take the actual experienced pain and suffering (and possibly a calculation of

194 See Section III.B.

195 If one were to take seriously the argument that injury should be judged post-adaptation, then this suggests three corollaries. First, tortfeasors will have to introduce testimony about a victim’s pre-injury baseline happiness, against which her post-injury happiness can be judged. Second, injured parties should have a duty to mitigate their losses by taking all possible steps to improve the rate or completeness of adaptation. Third, we should consider having tortfeasors provide more than monetary compensation to victims of torts. Tortfeasors could provide or subsidize activities that foster adaptation, such as courses about new skills or hobbies (unrelated to work), meditation, therapeutic counseling, or vocational retraining. But these corollaries are thus far unexplored by the legal hedonists.
lost capabilities) completely out of the equation, and would therefore undercompensate the plaintiff. Moreover, it would not properly incentivize potential tortfeasors to engage in taking proper precaution, because a defendant would not have to completely internalize the negative externality created by the pain and suffering their actions proximately caused.

Said more formally, from a happiness perspective, a jury should award an amount in monetary damages equal to the area under the curve that represents instantaneous happiness on the vertical axis and time on the horizontal axis from the moment of injury until whenever there is complete hedonic recovery from the injury.196 In other words, the amount of monetary award should be the integral of the instantaneous happiness function over time from the moment of injury until there is complete hedonic adaptation if and whenever that ever occurs. Only by awarding this amount can a legal system and society ensure that potential defendants will take proper precautions and that injured plaintiffs will be properly compensated.

Fourth, the legal hedonists have taken a paternalistic approach by privileging an individual’s ex post experienced happiness over that same person’s ex ante decision utility.197 That is, the legal hedonists assume that if and when a plaintiff’s experienced happiness has returned to pre-injury levels, she should not be compensated for that injury.198 This is true, even if after plaintiff’s happiness returns, she prefers to live without injury or still prefers to be compensated for her injuries.199 But, as we discussed earlier, a plaintiff’s true well-being is not equal to just her experienced happiness. Simply measuring one’s happiness as a proxy for well-being misses important aspects of one’s well-being. For example, people may choose activities that will actually reduce their experienced happiness. Such decisions can provide meaning, increase the variance and intensity of emotions, fulfill unfulfilled altruistic motivations, or allow for exercise of fundamental capabilities. We are not suggesting that a plaintiff’s decision to litigate is entirely reflective of her well-being either. But we believe that an individual’s true well-being is not just limited to experienced affect.

196 This time series will include any lingering memories of pain or mental anguish. That is, adaptation is not complete as long as tort victims still suffer negatively from memories of the pain and suffering.

197 Neoclassical economics views a person’s decision utility as information that can be inferred from or revealed by that person’s choices if that person’s behavior satisfies certain assumptions, notably the so-called weak axiom of revealed preference. Paul A. Samuelson, A Note on the Pure Theory of Consumer’s Behaviour, 5 ECONOMICA 61 (1938) (introducing the weak axiom of revealed preference).

198 For Bagenstos and Schlanger, this argument is grounded in a belief that compensation for disability causes its own dignitary harm, not purely in a notion that the losses themselves are illusory.

199 See supra notes 132 - 133 and accompanying text.
Another way to appreciate how legal hedonists privilege a particular time slice of life is to view emotions over a timeline ranging from before a decision is made to after one is made. People feel anticipatory emotions, such as anxiety and exuberance before making decisions. People also forecast how they will feel if they make certain decisions. These affective forecasts are called anticipated emotions, also referred to as decision utility. Once people make decisions but even before those decisions’ outcomes are realized, people feel interim emotions, such as dread or savoring. People also still have their decision or predicted utility forecasts. The moment outcomes of decisions materialize, people feel experienced affect, such as disappointment and relief, also referred to as experienced utility. Finally, after outcomes of decisions materialize, people feel ex post emotions and experience remembered utility.

The central point of the above timeline is that emotions vary over the course of the decision-making process. In particular, psychological research studies find that predicted and remembered emotions have a tendency to coincide and both differ from experienced emotions. Such temporal differences in emotions mean that people themselves as well as law and policymakers have to balance or choose among the well-being of predicting selves, experiencing selves, and remembering selves. The legal hedonists favor people’s experiencing selves over their predicting selves and remembering selves. We believe that just as cogent a case may be made in favor of people’s predicting selves or their remembering selves.

Lastly, and related, some legal hedonists argue that non-economic damages should be aimed at compensating for lost capabilities rather than solely for changes in affective states. In other words, they argue that even if people who have suffered injuries were to experience complete hedonic adaptation, they nonetheless have lost an option to engage in certain activities. And this loss should be compensated. As we discussed, the law already aims to compensate lost capabilities, experiential and emotional variety, and for lost opportunity in the form of damages for loss of enjoyment of life. But leave that aside for a moment. Importantly, the legal hedonists may not have properly considered the importance of emotional variance in the pricing of lost capabilities or options. Capability damages can be understood as compensating a tort victim for losing the flexibility or

freedom to engage in certain activities.\textsuperscript{201}

One way to understand capabilities is to think of them as real options, that is, rights, but not obligations, to make decisions, such as options to abandon, delay, expand, or undertake capital investments like constructing a new factory plants or drilling for oil.\textsuperscript{202} Unlike financial options, real options usually are not and cannot be traded. Nonetheless, empirical techniques and theoretical insights about financial option valuation can be applied to valuation of real options.\textsuperscript{203} Under certain hypotheses, the value of a financial option increases with the volatility of the price of the underlying asset of that option.\textsuperscript{204} An analogous result in real options theory is that the value of a real option increases with the volatility of the value of the decision that is associated with that real option. Applying this result to capability damages understood as compensating for the loss of real option values to engage in activities that generate a range of feelings implies that capability damages should increase with the variance of emotions that result from such activities.\textsuperscript{205} In other words, from a real options perspective, being unable to engage in activities that involve a wide range of emotions should result in higher damages than being unable to engage in activities that involve a narrow range of emotions. So if parenting involves a high

\textsuperscript{201} Such a perspective is related to 1972 economics Nobel Laureate Kenneth Arrow’s proposal about one way to incorporate freedom into a formal economic theory of choice. Kenneth J. Arrow, A Note on Freedom and Flexibility, in CHOICE, WELFARE, AND DEVELOPMENT 7 (Kaushik Basu et al. eds., 1995). Arrow’s notion of people being free to enjoy preference flexibility is motivated by and similar to “the concept of concept of flexibility, where there is a sequence of decisions in the face of uncertainties.” Kenneth J. Arrow, Freedom and Social Choice: Notes in the Margin, 18 UTILITAS 52, 57 n.18 (2006).

\textsuperscript{202} See, e.g., MARTHA AMRAM & NALIN KULATILAKA, REAL OPTIONS: MANAGING STRATEGIC INVESTMENT IN AN UNCERTAIN WORLD (1999); JONATHAN MUN, REAL OPTIONS ANALYSIS: TOOLS AND TECHNIQUES FOR VALUING STRATEGIC INVESTMENT AND DECISIONS (2d ed. 2005). “Real options” are so named is to differentiate them from “financial options,” which are defined to be rights, but not obligations, to either buy or sell a particular underlying financial asset. Familiar examples of financial options are stock options that many corporations provide their executives, directors, and officers as part of their incentive compensation packages.

\textsuperscript{203} Scholars have applied real options analysis to value lawsuits. See, e.g., Joseph A. Grundfest & Peter H. Huang, The Unexpected Value of Litigation: A Real Options Perspective, 58 STAN. L. REV. 1267 (2006); Peter H. Huang, A New Options Theory for Risk Multipliers of Attorneys’ Fees in Federal Civil Rights Litigation, 73 N.Y.U. L. REV. 1943 (1998); Peter H. Huang, Lawsuit Abandonment Options in Possibly Frivolous Litigation Games, 23 REV. LITIG. 47 (2004).

\textsuperscript{204} Robert C. Merton, Theory of Rational Option Pricing, 4 BELL J. ECON. & MGMT. SCI. 141, 149 Theorem 8 (1973).

\textsuperscript{205} Loewenstein & Ubel, supra note 133, at 1802; Ubel & Loewenstein, supra note 2, at 15-16.
variance of emotions,\textsuperscript{206} then being unable to be a parent should entail high real options damages. Similarly, there should be high real options damages for the example that Ubel and Loewenstein provide of “a person suffers brain damage from an industrial accident, and is turned into a happy simpleton because of the injury.”\textsuperscript{207}

**B. Jury Awards and Non-Economic Damages**

But even if hedonic adaptation is not a reason to undermine tort damage awards, the legal hedonists may argue that affective forecasting errors demonstrate the unreliability of jury awards.

A central question tort lawsuits must answer is: are juries awarding the correct amount for non-economic damages. This question, of course, just begs the basic question what we mean by the “correct amount.” The answer, from a purely law and economics perspective, is to choose a level of damages that balances deterrence of tortfeasors and compensation of tort victims.\textsuperscript{208} Tort compensation may also serve an expressive or symbolic function, demonstrating that harming others is a wrongful act that causes dignitary harm beyond the physical and emotional damages.

In selecting the level of damages, court do not and should not consider only happiness. Rather, courts should and do award tort victims compensatory damages for any or all five of these conceptually and theoretically distinct but often practically and realistically intertwined harms: (1) pain and suffering, (2) lost capabilities, (3) emotional distress, (4) decreased life satisfaction, and (5) “sweat and tears” victims expend in recovering from injuries. This last component of compensatory tort damages can be analogized to damages in antitrust litigation including a component for expenditures that plaintiffs had to make in response to defendant’s wrongful conduct. We have in mind various emotional, mental, and physical anguish, efforts, and labor that plaintiffs incur during their recovery activities. This is distinct from and to be contrasted with such out-of-pocket expenses as money spent on crutches, drugs, physical rehabilitation therapy, or wheelchairs, for which plaintiffs can and should also be compensated but under the category of economic damages.

A possible way to assist juries in determining compensatory damages is to utilize novel empirical research about how people spend time and how

\textsuperscript{206} Loewenstein & Ubel, supra note 133, at 1802.

\textsuperscript{207} Ubel & Loewenstein, supra note 2, at $206.

\textsuperscript{208} This answer in turn only begs other questions, such as whether such compensation should include how court procedures affect people's happiness. Jose Mulder, How Do We Compensate A Victim’s Loss? An Economic Perspective, Tilburg Law and Economics Center Discussion Paper No. 2008-12 (Mar. 2008).
they feel during various activities they spend time doing.\textsuperscript{209} This research involves two alternative types of survey data based primarily upon the new Princeton Affect and Time Survey (PATS), which is a diary-based national survey measure of time use and affective experience. The PATS, like other measures,\textsuperscript{210} The first entail self-reports of these six affective experiences: feeling interested, stressed, happy, sad, pain, and tired.\textsuperscript{211} The second is the U-index,\textsuperscript{212} which measures the percentage of time spent in an unpleasant state, which in turn is defined as an episode in which the strongest emotion is negative.

Both types of data can help juries normatively evaluate how tort victims change how they spend their scarce resource of time before and after a tort. The key point is that regardless of the degree that happiness can adapt following an injury, tort victims are going to allocate their scarce time differently post-injury compared to pre-injury. Tort victims are going to be unable to engage in some activities post-injury and have to engage in some other activities post-injury because of the injury. Reallocations of time and changes in activities imply different quantities and types of experienced affect. These resulting affective changes provide data that can inform jury deliberations about compensatory damages. Of course, juries have to convert such changes in experienced affect into dollars. Although that conversion can certainly be a daunting undertaking, it can benefit from expert testimony based upon econometric analysis of happiness regression equations.\textsuperscript{213}

We believe that jurors are better suited to determine and evaluate compensatory damages for individual plaintiffs\textsuperscript{214} than technocratic experts are likely to be at developing a set of civil damages guidelines,\textsuperscript{215} or a random panel of citizens at developing and ranking a list of representative injuries grouped into categories of compensation,\textsuperscript{216} or federal or state legislators would be in setting maximum damage amounts.\textsuperscript{217} Obviously, jurors face a difficult task in monetizing pain, suffering, or loss of enjoyment of life.\textsuperscript{218} But trial by jury provides a unique opportunity to

\textsuperscript{209} See generally, NATIONAL TIME ACCOUNTING & SUBJECTIVE WELL-BEING (Alan B. Krueger ed., forthcoming 2009). See also, Krueger, supra note 156.
\textsuperscript{210} Krueger, supra note 156.
\textsuperscript{211} Id.
\textsuperscript{212} Kahneman & Krueger, supra note 156.
\textsuperscript{213} Oswald & Powdthavee, supra note 117.
\textsuperscript{214} Ubel & Loewenstein, supra note 2, at S212.
\textsuperscript{215} Sunstein, supra note 2, at S284-S286.
\textsuperscript{216} Ubel & Loewenstein, supra note 2, at S208-S209.
\textsuperscript{217} Id. at S210-S211.
\textsuperscript{218} NEIL VIDMAR & VALERIE P. HANS, AMERICAN JURIES: THE VERDICT 284 (2007) ("There is no way to place an exact figure on what such injuries are worth. The jury has to
individuate damages. As two preeminent empirical jury scholars Neil Vidmar and Valerie Hans observed:

The jury is in a position to decide, as well as anyone, the special circumstances of pain suffered by the plaintiff. Consider people who have lost a leg due to negligence. Sometimes amputees experience excruciating “phantom pain” that is unabating, and doctors can do little but prescribe heavy doses of pain medicine. In contrast, a second person with an identical amputation injury will experience no pain; a third person will have intermittent pain. Similar differences occur with whiplash injuries. Some people have stronger tolerance for pain or mental anguish, but others have weaker tolerance. The jury is asked to consider the special circumstances of the plaintiff.\textsuperscript{219} 

Moreover, excerpts of real jury deliberations from the Arizona Jury Project, a research initiative to analyze implications of several jury reforms, reveal that jurors individually and jurors collectively\textsuperscript{220} “[take] their task very seriously, often to the extent of calculating and arguing down to the last dollar.\textsuperscript{221} 

Despite the advantages of individuation, the legal hedonists could argue that juries may neither comprehend nor listen to jury instructions that judges provide; the legal system does not monitor juries to ensure that juries actually follow instructions; and that as a result of errors in affective forecasting, jurors will make systematic errors in awarding non-economic damages, even if they understand the instructions. 

It is true that jury instructions on non-economic damages are notoriously

\textsuperscript{219} Id., at 295.
\textsuperscript{220} A unique aspect of jury awards is that they result from a deliberative process. As Vidmar and Hans observed:

A representative, diverse jury promotes vigorous debate. One of the most dramatic and important changes over the last half century is the increasing diversity of the American jury. Diverse juries have an edge in fact-finding, especially when the matters at issue incorporate social norms and judgments, as jury trials often do. Deliberation improves comprehension. Jurors with expertise on a topic often take a lead role when the jury discusses that topic, and errors made by one juror are frequently corrected by another juror. Deliberations encourage the sharing of knowledge and also the testing of narrative accounts. The representative jury and its verdicts are also seen as more legitimate by the public, an important strength of the jury as an institution.

\textsuperscript{221} Id., at 298-99.
vague and are thus likely too complex to follow or provide adequate direction to jurors. Further even if the instructions were clear, jurors “do not always—and probably cannot always—faithfully follow instructions. They are imperfect decision makers.” But various jury reforms can help jurors do a better job. And even if there are some reports of extravagant jury awards, the average award is not out of line and there is research showing that juries tend to reward more severe injuries with greater damages.

Further, it is important to remember that juries do not work alone in the judicial process, and that trial judges and post-verdict settlements can play a significant role in shaping awards. For instance, in most cases involving outlier jury awards, either judges reduced them by remittitur or parties negotiated a lower post-trial settlement.

As Professors Vidmar and Hans concluded:

As we evaluate the case for the jury, we observe many signs that the American jury is a sound decision maker in the majority of … civil … trials. Very significant to us are the research findings that identify the strength of the evidence presented at trial as the major determinant of jury verdicts. Civil jury awards are strongly correlated with the negligence and degree of injury. These

222 Vidmar and Hans observe:
Instructions on pain and suffering implicitly acknowledge the vagueness of the jury’s task. For instance, a North Carolina jury instruction says: “Damages should include such amount as you find, by the greater weight of the evidence, is fair compensation for the actual physical pain and mental suffering which were immediate and necessary consequences of the injury. There is no fixed formula for evaluating pain and suffering. You will determine what is fair compensation by applying logic and common sense to the evidence.”

Id.


224 VIDMAR & HANS, supra note 218, at 163.

225 For example, reforms that are designed to make jury trials better approximate ideal educational practices, such as permitting jurors more active roles during trials, can produce benefits without introducing any feared countervailing harmful side effects. Id., at 343-44, 396.


reasonable patterns in jury decisions go a long way to reassuring us that juries, by and large, listen to the judge and decide cases on the merits of the evidence rather than on biases and prejudice.

Furthermore, in systematic studies spanning five decades, we find that judges agree with jury verdicts in most cases. … Most judges say that jurors make a serious attempt to apply the law, and they do not see jurors relying on their feelings rather than the law in deciding on a verdict.

The jury’s distinctive approach of commonsense justice best explains the divergence between judge and jury. These juror values affect the verdicts primarily in trials in which the evidence is relatively evenly balanced and a verdict for either side could be justified. Other studies, showing that the judgments of medical experts and arbitrators converge with jury decisions, reinforce this basic conclusion.228

Moreover it is unclear that judges or administratively mandated caps on non-economic damages (such as those suggested by the legal hedonists) would better approximate ideal damage awards. First, to the extent that hedonic adaptation occurs, there is not significant information about rates of hedonic adaptation.229 This means that there is a significant gap in the data that is necessary to properly price damages. More importantly, no study could provide data about individual hedonic adaptation. That is, even if there is adaptation for a given injury in the population as a whole, how much and at what rate any particular individual adapts may differ and may depend on demographic and individual characteristics.230 Second, even if we depended on judges to individuate, there is no evidence that judges would do a better job. Recent studies suggest that federal magistrate judges are unable to follow instructions, make decisions almost identical to juries, and are affected by cognitive biases and heuristics just like people generally.231 In fact, “regular exposure to particular types of cases, defenses,
and even specific litigants may create expectations in judges that are hard to overcome. Because a jury is composed of persons without repetitive exposure, the jury system gives every litigant the benefit of a fresh look.232

Third, legislative or administrative caps on non-economic damages (as proposed by Sunstein233 and Ubel and Loewenstein234) may exacerbate inequitable awards. For example, medical malpractice cases, a particularly controversial set of tort lawsuits, raise several additional issues about noneconomic damages. The main and often heard complaint about jury awards in medical malpractice lawsuits is that juries are far too generous in making pain and suffering awards.235 Such complaints have led some tort reformers to propose caps on pain and suffering awards based upon arguments that such awards provide underserved windfalls for plaintiffs and their attorneys, who earn a percentage of those awards. In 1975, California enacted a $250,000 cap on pain and suffering and other general damages. This example provided a model that twenty three states have since followed.236

But, are pain and suffering awards really the windfalls that they are purported to be? A study of birth and emergency room injuries found the final amounts that plaintiffs who proceeded to trial before a jury received to be, on average, only twenty percent more in compensation than actual economic losses.237 Twenty percent is not really such a windfall for a severely injured tort victim. In addition, the Wisconsin Supreme Court overturned its $350,000 cap on pain and suffering in medical malpractice cases because it concluded that caps produce inequitable consequences especially to severely injured plaintiffs.238 A systematic analysis of jury verdicts in California, Florida, and Maryland found that caps disparately impacted monetary recoveries by children, elderly people, and women.239 That study pointed out how cap laws “place an effective ceiling on recovery for certain types of injuries disproportionately experienced by women, including sexual assault and gynecological injuries that impair child bearing.

232 Vidmar & Hans, supra note 218, at 342.
233 Sunstein, supra note 2, at S284-S286.
234 Ubel & Loewenstein, supra note 2, at S210-S211.
237 Frank A. Sloan et al., Compensation, in SUING FOR MEDICAL MALPRACTICE 187, 195 (Frank A. Sloan et al eds., 1993).
238 Ferdon v. Wis. Patients’ Comp. Fund, 701 N.W.2d 440 (Wis. 2005).
or sexual functioning."\footnote{240} A similar argument has been made that although statutory caps on non-economic damages are facially neutral, they have an unintended consequence of disproportionately disadvantaging women.\footnote{241} An empirical study of California’s $250,000 cap for noneconomic damages concluded that: “Plaintiffs with the most severe injuries appear to be at the highest risk for inadequate compensation. Hence the worst-off may suffer a kind of ‘double jeopardy’ under caps.”\footnote{242}

Remember from our previous analysis of the limits to hedonic adaptation, that people do not completely adapt hedonically to recurring pain or severe disfigurement, both of which are situations that often lead to depression or unemployment, two further events to which people only incompletely hedonically adapt. Thus, the heterogeneity and incompleteness of hedonic adaptation provide two additional reasons to be concerned that caps on pain and suffering damages are going to exacerbate inequities that already exist in our society and legal system.

CONCLUSIONS

We believe that recent happiness research is of tremendous importance not only intrinsically,\footnote{243} but also practically in applications to law and policy.\footnote{244} Happiness research, especially of the positive psychology variety, can yield guidance to individuals and institutions about creating and sustaining happiness, making better choices, and leading more productive and engaged lives.\footnote{245} But, currently we have serious concerns about making significant public policy changes based upon an incomplete, nascent body of empirical research. We also believe that law and policy are better when based upon research from non-law fields including anthropology, economics, neuroscience, political science, psychology, and sociology. But, in the history of science,\footnote{246} there has been a pattern of new ideas and novel insights being too quickly and inaptly applied, only to create a backlash, to

\footnote{240} Id., at 1331.
\footnote{241} See generally, Rebecca Korzec, Maryland Tort Damages: A Form of Sex-Based Discrimination, 37 U. BALT. L.F. 97 (2007).
\footnote{243} SONJA LYUBOMIRSKY, THE HOW OF HAPPINESS: A SCIENTIFIC APPROACH TO GETTING THE LIFE YOU WANT (2007).
\footnote{244} See e.g., Mark A. Cohen & Michael P. Vandenbergh, Consumption, Happiness, and Climate Change, 38 ENVT. L. REP. 10834 (2008); Paul Dolan & Mathew P. White, How Can Measures of Subjective Well-Being Be Used to Inform Public Policy?, 2 PERSP. PSYCHOL. SCI. 71 (2007).
\footnote{245} See, e.g., Blumenthal & Huang, supra note 10; Huang & Swedloff, supra note 150.
\footnote{246} See generally, THOMAS S. KUHN, THE STRUCTURE OF SCIENTIFIC REVOLUTIONS (1996).}
be followed by more careful and nuanced applications. This Article advocates that scholars can and should increase their creativity and precision to engage in development of more subtle legal policy implications of happiness research that pay closer and finer attention to economic and psychological realities.

Each of us has already expressed a number of concerns and reservations towards basing legal policy about settlement decisions in civil lawsuits upon earlier findings regarding hedonic adaptation. Our concerns here are similar. We simply do not believe that current data on hedonic adaptation support eliminating a basic building block or our civil system. It is not yet clear that hedonic adaptation, in fact, plays or even should play a role in monetizing non-economic damages. There is significant data about hedonic adaptation, but all of it pointing in different theoretical directions. At this point there is not yet one theoretical underpinning to hedonic adaptation. Just as theories without data can be speculations, data without any theory can be uninformative. Lacking such a unified theoretical foundation, the mass of data that is being produced has multiple interpretations and thus is not as useful as it could be to legal policy makers. Thus, we believe that legal policy based on hedonic adaptation is not yet ready for prime time.

We believe that juries can and should play a vital role in assessing and individuating damage awards. This role is extremely important in the non-economic context, where juries cannot just look to medical bills or income projections to mechanically craft a damage award. Here, where the data supporting the argument against jury awards is not that strong, we disagree with dismantling such a vital civil system as the jury system. That being said, juries could benefit from additional guidance. This might come in the form of expert testimony about happiness, additional lay testimony about individual adaptation or loss of real options as a result of injury, or improved jury instructions. More research, however, is necessary to fully evaluate the best means to deliver these messages to juries. For example, new technologies for neuroimaging have the potential to revolutionize the detection, verification, and legal determinations of an individual’s pain and

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247 Huang, supra note 34; Swedloff, supra note 34.

248 For example, two economists recently utilized happiness regression equations to determine compensatory damages for emotional harm and pain-and-suffering in tort cases involving death of a loved one. Oswald & Powdthavee, supra note 117. One of these economists has estimated monetary values for how much increased life satisfaction individuals experience due to more frequent interaction with their friends, relatives, and neighbors based upon the British Household Panel Survey. Nattavudh Powdthavee, Putting A Price Tag on Friends, Relatives, and Neighbours: Using Surveys of Life Satisfaction to Value Social Relationships, 37 J. SOC.-ECON. 1459 (2008).
its extent.\textsuperscript{249} There is also research that suggests genetic differences may underlie why people differ in their adaptation to, experience of, and memories about pain.\textsuperscript{250}
