The Hedonic Impact of Stand-Alone Emotional Harms: an Analysis of Survey Data

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THE HEDONIC IMPACT OF “STAND-ALONE” EMOTIONAL HARMs: AN ANALYSIS OF SURVEY DATA

David DePianto *

Abstract:
This paper employs survey data on subjective well-being and a battery of self-assessed health measures to estimate the hedonic impact of emotional health, as decoupled from its physical counterpart. The disaggregation of global health into physical and emotional components is done with a parochial eye toward tort law, which has historically drawn a distinction between physical and emotional harms, limiting recovery on the latter—particularly “stand-alone” emotional harms—through various common law doctrines. The results of three sets of regression analyses suggest that a range of potentially non-actionable emotional conditions, including emotional conditions with no concomitant physical manifestations, exert a significant negative impact on subjective well-being. Further, the emotional health variables included in the models uniformly bore stronger connections to well-being than their (similarly-worded and similarly-scaled) physical health analogues. In discussing the results, the paper offers a cautious defense of the use of subjective well-being measures—so-called “happiness” data—as a tool for informing the concepts of harm and injury in tort.

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INTRODUCTION

Empirical research on subjective well-being (“SWB”), or “happiness research” as it is commonly called,\(^1\) is not a particularly new field of study.\(^2\) However, a recent resurgence of interest in SWB has drawn a fresh batch of commentators and practitioners into its wake: empirically-minded legal scholars. Early adopters in the legal academy have offered insights on a range of issues, from the import of happiness research to civil damage awards,\(^3\) to the impact of crime on our lives,\(^4\) to the potentially sweeping implications of a hedonic version of cost-benefit analysis.\(^5\) Given the rising interest in the data and methodology underlying such studies, the increasing sophistication with which they are executed, and the cultural resonance of happiness \textit{qua} element of human flourishing—as evidenced by the ongoing treatment of the subject in the mainstream media\(^6\)—current scholarly offerings on the subject appear to be the mere tip of the iceberg.

This paper employs survey data from the General Social Survey series to estimate the hedonic impact of emotional harms; that is, the relationship between subjective well-being (“SWB”) and emotional health, as decoupled from its physical counterpart. The disaggregation of global health into physical and emotional components is done with a parochial eye toward tort law, which has historically drawn a distinction between physical and

\(^1\) Following the convention of most scholars in this area, I use the terms “happiness” and “subjective well-being” interchangeably, to refer to the various types of survey-based measures employed in these analyses. The distinction between various measures of well-being, and their ability to capture the elusive, contested concept of happiness, is discussed further in Section II.

\(^2\) Social science journals have been engaged in the study of well-being for around thirty years, the first notable piece being Richard Easterlin’s seminal 1974 article examining the relationship between money and well-being. See Richard A. Easterlin, \textit{Does Economic Growth Improve the Human Lot? Some Empirical Evidence}, in \textit{NATIONS AND HOUSEHOLDS IN ECONOMIC GROWTH} \textit{89, 89-125} (Paul A. David & Melvin W. Reder eds., 1974). Philosophical reflections on happiness, of course, date back to ancient civilization.


emotional harms, limiting recovery on the latter through various common law doctrines. While the law of torts has made significant strides towards inclusion, the distinction persists; recovery for emotional harms is still limited in scale and scope, and tied, in various ways, to physical harm.\textsuperscript{7}

The emotional/physical distinction is often defended on practical grounds, by reference to the nebulous nature of mental injuries, the inability of courts to effectively distinguish genuine and serious emotional harms from fraudulent ones, and the difficulty in valuing such injuries.\textsuperscript{8} Underlying such arguments, however, is an enduring suspicion—often, but not always, implicit—about the unimportance of emotional tranquility to our lives. Thus, the distinction remains despite challenges from the other side of the debate, who view it as anachronistic,\textsuperscript{9} unfair,\textsuperscript{10} and discriminatory.\textsuperscript{11}

The remainder of the paper is organized as follows. Section I outlines the rules of recovery for emotional harms in tort, as compared to physical injuries. Throughout the paper, the terms "mental" and "emotional" are used interchangeably and in a colloquial sense, to refer to a broad category of health states or conditions that are commonly (if incorrectly) understood to be distinct from physical phenomena. This negative definition of “mental” and “emotional”—which covers anxiety, inability to concentrate, depression, anguish, grief, psychosis, humiliation, fright, shock and/or other negative emotions distinct from physical pain—\textsuperscript{12} is a legal, rather than a medical, one.\textsuperscript{13} Moreover, this usage tracks the particular survey instruments used in the analysis, which are discussed in detail in Section III.

Section II provides background on the burgeoning empirical literature on SWB, including an overview of findings on the SWB/health connection.

\textsuperscript{7} See \textit{Restatement (Third) of Torts: Liab. for Physical \& Emotional Harm} ch. 8, scope note (Tentative Draft No. 5, 2007).

\textsuperscript{8} See id.


\textsuperscript{12} See, e.g., GTE Sw., Inc. v. Bruce, 998 S.W.2d 605, 618 (Tex.1999)(“Emotional distress includes all highly unpleasant mental reactions such as embarrassment, fright, horror, grief, shame, humiliation, and worry.”); Campos v. Ysleta Gen. Hosp., 836 S.W.2d 791, 795 (Tex. App. 1992) (“Severe emotional distress is generally defined as painful emotions such as grief, severe disappointment, indignation, wounded pride, shame, despair, or public humiliation.”).

\textsuperscript{13} See \textit{Restatement (Third) of Torts: Liab. for Physical \& Emotional Harm} ch. 8, scope note (Tentative Draft, No. 5, 2007) (defining “physical impairment of the human body” as “physical injury, illness, disease, and death” and noting that the “definition of physical harm is meant to preserve the ordinary distinction between physical harm and emotional disturbance.”).
and a discussion of the extant legal applications of empirical research on SWB. Also included in Section II is a discussion of the usefulness of SWB (or, more specifically, diminutions in SWB) as a proxy for harm in the tort context. Without endorsing the view that recovery in tort should be completely determined by hedonic considerations, I argue that SWB—with its broad conceptual reach and its mostly intuitive correlations with several important quality-of-life measures—captures something meaningful about what makes us “whole,” both as aggrieved litigants and as individuals in general.

Section III outlines the data and methods employed in the core analyses of the paper. The study comprises three sets of regression analyses, each of which capture emotional health in different ways (via different survey instruments) in an effort to gauge its impact on SWB. Each of the three regression sets, further, contains two distinct models that decouple the hedonic impact of physical and emotional health through alternative means: one variation in which physical and emotional health are both included among the variables (to capture and distill their respective impacts on well-being) and another variation performed on survey subpopulations that are free of physical health issues. The latter model is of particular import to the law of torts, as it approximates the hedonic impact of so-called “stand-alone” or “non-parasitic” emotional harms: emotional harms not occasioned or accompanied by physical symptoms. Such claims, as discussed in greater detail below (Section I), are treated with particular suspicion in the tort context.14

Section IV presents three primary results: (1) emotional harms, including those free of concomitant physical manifestations or symptoms, exert a significant impact on SWB; (2) the impact of emotional health on SWB appears to be largely independent of physical health status; and (3) the emotional health variables uniformly bear stronger connections to SWB than their similarly-worded and similarly-scaled counterparts regarding physical health. To convey a rough sense of the impact of emotional health on SWB, I include rough monetary equivalents (compensating differentials) for various degrees of change in emotional health.

Section V takes stock of the various limitations of the analysis, explaining how such limitations might color the interpretation of the findings and impact their utility vis-a-vis tort law. A question of fundamental importance is addressed at the outset of the section: Are emotional harms and SWB so conceptually similar as to make the analysis question-begging? I argue that, while the concepts of emotional health and SWB are related (and sometimes conflated), they are sufficiently distinct to

make the analysis meaningful. The issue of external validity is also raised in Section V, in light of the fact that this analysis seeks to bring emotional health data from outside the tort context to bear upon the judicial treatment of emotional injuries within tort. Finally, the broad framing of the emotional health survey questions—a framing that reveals little about the specific (clinical) nature of the emotional problems that underlie survey responses—is addressed.

Ultimately, the current inquiry is not intended to provide a definitive conclusion about the judicial treatment of emotional distress generally, nor is the analysis aimed at generating precise (dollar) estimates of the impact of specific types of emotional harm; the methodology is too blunt for such purposes and, in any event, the results do not speak directly to some of the practical concerns often raised with regard to emotional injuries. Rather, the current inquiry is an effort to test whether a range of potentially non-actionable emotional harms (including stand-alone harms) impact well-being in a significant way.

I. LEGAL BACKGROUND

The distinction between physical and emotional harm, and the relative devaluation of the latter, has deep historical roots in tort law.\(^{15}\) The evolution of the law in this area begins, in the early 20\(^{th}\) century, with a categorical denial of recovery for stand-alone emotional injuries.\(^{16}\) Shifting incrementally in the direction of inclusion, courts began to allow recovery

\(^{15}\) An exhaustive legal history of the mental/physical distinction is beyond the scope of this paper. For a comprehensive treatment of the topic, see Levit, supra note 10, at 140-58; see also Kircher, supra note 14 (offering an exhaustive analysis of the treatment of mental and physical harm in tort, including fifty state surveys of the law).

\(^{16}\) The case of Lynch v. Knight, 11 Eng. Rep. 854 (H.L. 1861) (appeal taken from lr.), is frequently cited for the proposition that pure emotional disturbance—mental harm not accompanied by physical injury—is not a legally cognizable harm. For cases echoing this sentiment, see, e.g., Monteleone v. Co-Operative Transit Co., 36 S.E.2d 475 (W. Va. 1945)("There can be no recovery in tort for an emotional and mental trouble alone without ascertainable physical injuries.") overruled by Heldreth v. Marrs, 425 S.E.2d 157 (W.Va., 1992); Int'l & G.N.R. Co. v. Sammon, 79 S.W. 854 (Tex.Civ.App. 1904) ("A distinction must be observed between those cases which establish what is called the ‘Texas rule,’ which allows damages for mental anguish on breach of contract, and those which deny recovery for mental anguish in cases of tort unaccompanied by physical injury."); Spade v. Lynn & B.R. Co., 47 N.E. 88, 89 (Mass. 1897)([T]here can be no recovery for fright, terror, alarm, anxiety, or distress of mind, if these are unaccompanied by some physical injury; and if this rule is to stand, we think it should also be held that there can be no recovery for such physical injuries as may be caused solely by such mental disturbance, where there is no injury to the person from without.) overruled by Dziokonski v. Babineau, 380 N.E.2d 1295 (Mass. 1978).
for mental/emotional injuries arising from (or concomitant with) physical injuries. The tethering of such harms—so-called “parasitic” mental harms—to physical injuries was seen as both a practical tool for limiting claims and as a value judgment about the importance of emotional tranquility to life:

The fear of imaginary injuries and fictitious suits, the belief in self-responsibility for mental well-being, the difficulty of monetarily valuing emotional harms, the lack of tools and standards for measurement of emotional ills, and the nascent state of the behavioral sciences all combined to preclude recovery for emotional suffering. Yet even at this juncture in history, an unarticulated basis for rejecting claims of emotional distress was probably the relative devaluation of emotional injuries compared to physical injuries. By the mid-20th Century, the requirement of a physical injury was relaxed for intentionally inflicted emotional distress (“IIED”), only to be replaced with a series of different limitations on recovery. Courts initially required, as a precondition for IIED recovery, either a physical manifestation of the emotional disturbance or a “physical impact” associated with the tortious behavior. The physical impact/manifestation requirements then gave way to a different set of limiting factors: a requirement of “extreme and outrageous” conduct on the part of the defendant and a plaintiff-side threshold requirement allowing recovery only for “severe” emotional disturbance.

Both requirements are drawn so as to limit emotional distress claims. Regarding the former requirement, liability is “found only where the conduct has been so outrageous in character, and so extreme in degree, as to go beyond all possible bounds of decency, and to be regarded as atrocious, and utterly intolerable in a civilized community,” such that “the recitation of the facts to an average member of the community would arouse his resentment against the actor, and lead him to exclaim, Outrageous!”

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17 See Levit, supra note 10, at 140-58; Kircher, supra note 14.
18 Levit, supra note 10, at 141-42.
19 See, e.g., State Rubbish Collectors Ass'n v. Siliznoff, 240 P.2d 282 (Cal. 1952)(allowing recovery where the defendant intentionally subjected the plaintiff to serious mental distress of which physical injury resulted); Emden v. Vitz, 198 P.2d 696, 699 (Cal. Ct. App. 1948)(“[i]f the primal cause of this [physical] injury is tortious, it is immaterial whether it is direct, as by a blow, or indirect through some action upon the mind.”).
20 RESTATEMENT (SECOND) OF Torts §46(1)(1965).
Harassment and improper termination by an employer, issuance of a false positive HIV test during a third trimester of pregnancy, disturbance of a relative's grave (exposing the deceased to plain view), and failure to clearly warn an employee of “substantial amounts of asbestos” in a confined work site, for example, have been deemed insufficiently outrageous to satisfy the former requirement. One New York court uses prior dispositions of IIED claims to describe the exacting standards for outrageousness: “of the intentional infliction of emotional distress claims considered by this Court, every one has failed because the alleged conduct was not sufficiently outrageous.”

Regarding the “severity” requirement, the law requires an emotional response “so severe that no reasonable person could be expected to endure it.” Emotional harms entailing “nightmares, difficulty sleeping, extreme loss of self-esteem and depression, requiring additional psychological treatment and counseling” and similar permutations of symptoms have failed to rise to the requisite level of severity.

The twin requirements of “extreme and outrageous” conduct and “severe” emotional distress are interpreted so as to effectively nullify what is commonly known as the “eggshell skull” or “thin skull” rule in the context of emotional harm. That is, while the defendant takes the plaintiff as he/she found him/her in the case of physical harms, an individual predisposed to emotional harm “may not recover if an ordinary person would not have suffered serious emotional disturbance” from the negligent activity at issue.


29 See Russo v. White, 400 S.E.2d 160 (Va. 1991)(nervousness, sleeplessness, stress, withdrawal from activities, and inability to concentrate not sufficiently severe, absent a showing that plaintiff sought medical attention); Farrar v. Bracamondes, 332 F.Supp.2d 1126, 1131 (N.D.Ill. 2004)(“Stress, nervousness, anxiety, and sleeplessness that do not require any medical treatment are not severe emotional distress.”).
31 RESTATEMENT (THIRD) OF TORTS: §46 cmt. i (Tentative Draft No. 5, 2007).
the severe distress threshold remain good law in nearly every state to this day.\footnote{See Kircher, supra note 14.}

The trajectory of the law with respect to negligently inflicted emotional distress (NIED) is similar to, if somewhat slower than, that of IIED. Early 20th century cases denied recovery for non-parasitic emotional harms arising from negligent behavior.\footnote{See, e.g., McCardle v. George B. Peck Dry Goods Co., 177 S.W. 1095 (Mo. Ct. App. 1915) (The rule of law, in this respect, may be stated in this way: If the negligent act causes fright and terror, but not bodily injury, there is no liability, though bodily injury should result from the fright. But, if the negligence causes physical injury and fright, there is liability for both; overruled by Bass v. Nooney Co., 646 S.W.2d 765 (Mo. 1983). See generally Kircher, supra note 14.}

As with IIED, the physical injury rule led, first, to a marginally more permissive rule that allowed recovery for emotional distress where such distress was occasioned by a physical impact or manifested itself physically.\footnote{See Kircher, supra note 14.} A majority of states currently require either a physical impact or manifestation as a precondition for (non-bystander) NIED claims,\footnote{See id.} in order to “remove an emotional distress claim from the realm of speculation”\footnote{Hawes v. Germantown Mut. Ins. Co., 309 N.W.2d 356, 360 (Wis. Ct. App. 1981).} or, equivalently, “[t]o ensure that the emotional injury is sufficiently serious to be afforded legal protection.”\footnote{O'Donnell v. HCA Health Services of N.H., Inc., 883 A.2d 319, 324 (N.H. 2005).}

In certain instances, the physical impact requirement has been abandoned altogether. Individuals suffering from serious emotional harm can sometimes recover absent an actual physical impact if the behavior of the tortfeasor placed them at immediate risk of physical harm.\footnote{See, e.g., Wal Mart Stores, Inc. v. Bowers, 752 So.2d 1201, 1203 (Ala. 1999)(“Alabama follows the ‘zone-of-danger’ test, which limits recovery of mental anguish damages to those plaintiffs who sustain a physical injury as a result of a defendant’s negligent conduct, or who are placed in immediate risk of physical harm by that conduct’); Jane W. v. President & Dirs. of Georgetown Coll., 863 A.2d 821, 826 (D.C. 2004)(“in order for [plaintiff] to make out her negligent infliction of emotional distress claim she must show that [defendant’s] conduct placed her in a zone of physical danger’); Asaro v. Cardinal Glennon Memorial Hosp., 799 S.W.2d 595 (Mo. 1990)(“in Missouri a plaintiff states a cause of action for negligent infliction of emotional distress upon injury to a third person only upon a showing: (1) that the defendant should have realized that his conduct involved an unreasonable risk to the plaintiff, (2) that plaintiff was present at the scene of an injury producing, sudden event, (3) and that plaintiff was in the zone of danger, i.e., placed in a reasonable fear of physical injury to his or her own person’); Rickey v. Chicago Transit Auth., 457 N.E.2d 1, 5 (Ill. 1983)(“a bystander who is in a zone of physical danger and who, because of the defendant's negligence, has reasonable fear for his own safety is given a right of action for physical injury or illness resulting from emotional distress”).} A small number of states follow this so-called “zone of danger” rule or a close
variant (including, in some cases, additional requirements such as physical manifestation of emotional distress).\textsuperscript{39} A growing majority of states now follow an even more permissive rule with respect to NIED—the Dillon rule, articulated by the Supreme Court of California in \textit{Dillon v. Legg}.\textsuperscript{40} \textit{Dillon} substitutes the relatively rigid zone of danger or “risk of immediate harm” requirements with a flexible set of considerations, including the nature of the relationship between the emotionally disturbed plaintiff and the physically injured party, the physical proximity of the plaintiff to the underlying accident, and the nexus between the witnessing of the accident and the emotional disturbance at issue.\textsuperscript{41} At the time of this writing, more than half of the states follow a rule based on \textit{Dillon}.\textsuperscript{42} In sum, the law has greatly expanded the range of circumstances under which individuals can recover for emotional injuries.

Notwithstanding such strides, however, emotional injuries remain “in large part, tied to either physical impacts, physical manifestations of injury, or other proxies for emotional distress.”\textsuperscript{43} Moreover, suspicion about the importance of mental health to our lives—as opposed to the various practical arguments against greater recovery for mental harms—appears not to have faded. The following characterization of (stand-alone or non-parasitic) mental harms in the second Restatement is still cited by courts today\textsuperscript{44} despite the presence of an updated version:

\begin{quote}
Emotional disturbance which is not so severe and serious as to have physical consequences is normally in the realm of the trivial, and so falls within the maxim that the law does not concern itself with trifles. It is likely to be so temporary, so
\end{quote}

\textsuperscript{39} \textit{Engler v. Ill. Farmers Ins. Co.}, 706 N.W.2d 764, 765 (Minn. 2005)(“[w]hen a plaintiff asserting a claim for negligent infliction of emotional distress was in the zone of danger of physical impact, reasonably feared for her own safety, and experienced severe emotional distress with physical manifestations, she may recover damages for distress”); \textit{Perrotti v. Gonicberg}, 877 A.2d 631, 636-37 (R.I. 2005)(quoting \textit{Marchetti v. Parsons}, 638 A.2d 1047, 1052 (R.I. 1994)); \textit{Nielson v. AT&T Corp.}, 597 N.W.2d 434, 440-42 (S.D. 1999)(“[t]he bystander must be within the zone of danger…. [t]he negligently inflicted emotional distress must be accompanied with physical manifestations”); \textit{Muchow v. Lindblad}, 435 N.W.2d 918, 921 (N.D. 1989) (citing \textit{RSTMT (SECOND) TORTS} § 436A (1965)).

\textsuperscript{40} \textit{Dillon v. Legg}, 441 P.2d 912 (Cal. 1968).

\textsuperscript{41} See \textit{id.}


\textsuperscript{43} See \textit{Levit, supra} note 10, at 146.

\textsuperscript{44} See, e.g., \textit{Ware v. ANW Special Educ. Co-op. No. 603}, 180 P.3d 610 (Kan Ct. App. 2008) (citing \textit{RESTATEMENT (SECOND) OF TORT} § 436A, cmt. b, pp. 461-62 (1964)).
evanescent, and so relatively harmless and unimportant, that the task of compensating for it would unduly burden the courts and the defendants.\textsuperscript{45}

The Restatement (Third) of Torts is far less dismissive of emotional harms than its predecessor, yet still favors physical health over emotional tranquility.\textsuperscript{46} Recent cases cast a similarly jaundiced eye on stand-alone emotional injuries, which are labeled as “everyday,”\textsuperscript{47} “usually trivial,”\textsuperscript{48} “often transient,”\textsuperscript{49} and “a part of the price of living among people.”\textsuperscript{50} The Supreme Court of Hawaii echoes such sentiments, cautioning against more expansive definitions of emotional distress, which might “curry… neurotic patterns in the population.”\textsuperscript{51} Such sentiments also find support in the legal academy.\textsuperscript{52}

The blanket marginalization of mental harms vis-a-vis their physical counterparts is especially stark given the lax requirements concerning the magnitude of physical injury, or “impact,” often required to authenticate emotional trauma: “[physical] [c]ontact, however slight, trifling, or trivial”\textsuperscript{53} and “bodily injuries, even though trivial or minor in character”\textsuperscript{54} are considered sufficient to support a cause of action for emotional distress. In the eyes of the law, therefore, the smallest quantum of physical injury is inherently more real and reliable than any number of emotional harms.

The devaluation of emotional harms extends even beyond the courtroom: damages for physical injuries are excludable from taxable income while those arising from emotional distress are not.\textsuperscript{55} The differential treatment of physical and emotional harms in the Internal

\begin{footnotes}
\item[45] \textsc{Restatement (second) of torts} § 436a, cmt. b, pp. 461-62 (1964).
\item[46] \textsc{see restatement (third) of torts: liability to bystanders for negligently inflicted emotional harm} § 4 (2005).
\item[47] \textsc{see thomas v. brewer’s food mart, inc.}, 219 p.3d 1243 (kan. ct. app. 2009).
\item[48] \textsc{reynolds v. highland manor, inc.}, 954 p.2d 11, 13 (kan. ct. app. 1998). \textsc{see also richard n pearson, liability to bystanders for negligently inflicted emotional harm – a comment on the nature of arbitrary rules}, 34 fla. l. rev. 477, 480 (most cases of negligently inflicted emotional harm would be trivial).
\item[49] \textsc{soucek v. banham}, 503 n.w.2d 153, 164 (minn. ct. app. 1993).
\item[50] \textsc{renville v. fredrickson}, 101 p.3d 773, 776 (mont. 2004) (quoting \textsc{restatement (second) of torts}, §436(a)).
\item[51] \textsc{rodrigues v. state}, 472 p.2d 509, 520 (haw. 1970).
\item[52] \textsc{see, e.g.}, richard epstein, torts 275 (1999)(emotional harms are often "so small that the law should take no notice of them, given the extensive costs of cranking up the legal system.").
\item[53] \textsc{deutsch v. shein}, 597 s.w.2d 141, 146 (ky. 1980).
\item[54] \textsc{brown v. philadelphia college of osteopathic medicine}, 674 a.2d 1130, 1135-36 (pa.super.ct. 1996).
\item[55] \textsc{see 26 u.s.c.a. § 104(a)(2) (2002), i.r.c. § 104 (a)(2) (2002) ("emotional distress shall not be treated as a physical injury or physical sickness")}.
\end{footnotes}
Revenue Code implies that awards for emotional distress are windfall gains rather than restorative transfers. In the words of one commentator, the distinction made by I.R.C Section 104(a)(2) “suggests a fundamental distrust on the part of Congress in the reality of emotional distress.”

Despite a number of challenges, from several different angles, to the emotional/physical distinction, the relative devaluation of the former endures within tort. The argument that emotional harms are singularly difficult to estimate appears somewhat disingenuous given the wide variation in awards for (similar types of) physical injuries. The concern over false claims, and the related claim that emotional harms are endogenous to legal rules on recovery, appear to minimize the effectiveness of forensic psychologists in identifying “malingering” (faking or exaggerating) among mental health claimants and the complementary role of jurors in the detection of same. Moreover, such arguments elude the fact that physical injuries, too, are susceptible to the problem of malingering. The notion that mental harms are somehow trivial is at odds with wide swaths of research that demonstrate the impact of poor mental health on everyday life and the role of mental states in the etiology of mental disorders.
various types of illnesses, many of which manifest long after the initial emotional harm (not to mention the relevant statutes of limitation). Finally, a number of commentators have argued persuasively that the various limitations on recovery for emotional harms bear a disproportionate impact on women.

II. THE EMPIRICAL STUDY OF WELL-BEING – A BRIEF PRIMER

SWB research generally proceeds through the gathering of survey data on various aspects of people's lives and examining the statistical interplay between self-assessed well-being and its putative correlates. By asking people to assess and report their own levels of well-being, such studies replace the standard “objective” economic measure of well-being – consumption behavior or revealed preferences – with more direct, subjective measures. The purview of SWB research extends beyond the realm of basic economic indicia, exploring the impact of demographic, attitudinal, social and political categories on well-being. Prior work, for example, has sought to identify the relationship between SWB and such diverse phenomena as household income, race, gender, marital status,
television viewing, aspects of governance, bereavement, crime, religious participation, educational attainment, inflation, unemployment, sexual activity and even internet access.

Well-being is commonly elicited through simple, single-item survey questions, such as “Taken all together, how would you say things are these days—would you say that you are very happy, pretty happy, or not too happy?” or “All things considered, how satisfied are you with your life as a whole these days?” Other methods of acquiring data on well-being include the “experience sampling method” (ESM) and “day reconstruction method” (DRM), both of which rely on repeated reports of well-being over time. Using pagers to signal to, or beep, study participants at various times throughout the study interval, ESM research allows for real-time assessments of well-being, recorded soon after (or contemporaneously with) various life events. DRM, as the full name suggests, calls for daily


See Christie Napa Scollon, Chu Kim-Prieto & Ed Diener, Experience Sampling: Promises and Pitfalls, Strengths and Weaknesses, 4 J. HAPPINESS STUD. 5 (2003); See also Saul Shiffman et al., Ecological Momentary Assessment, 4 ANN. REV. CLINICAL PSYCHOL.
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reflections on well-being. Moment-by-moment measures of SWB, it should be noted, bear strong correlations with single-item measures of SWB. 80

Measures of SWB, importantly, exhibit a number of favorable psychometric properties. The reliability, or stability of SWB measures over time, has been established by test-retest studies, 81 and alternative framings of SWB tend to converge with each other. 82 Moreover, the validity of SWB constructs is supported by their alignment with third-party assessments of well-being (family and friends of the primary respondent) 83 and physical markers of well-being such as heart rate, blood pressure, 84 and “Duchenne” smiles. 85 Measures of SWB also respond in expected ways with important life events—positive income shocks and marriage, for instance, have been shown to correspond with higher reported levels of well-being. 86


86 See Betsey Stevenson & Justin Wolfers, Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox, BROOKINGS PAPERS ON ECON. ACTIVITY 1, 5
A. Limitations of SWB Research

Notwithstanding their favorable qualities, survey measures of well-being—particularly single item measures of the type used in the current analysis—are susceptible to various types of bias: they can be influenced by seemingly trivial events that precede the administration of surveys, are sensitive to the ordering of questions, and are culturally-mediated in a variety of ways, rendering comparison across countries problematic. Additionally, single-item measures may be subject to social desirability effects and vulnerable to “peak-end” valuation, or a tendency to recall the last and most intense aspects of an event, rather than the entire experience thereof. More fundamentally, SWB measures force respondents to reduce complex and varied feelings about life into a single number. These limitations have led many to question the validity of single-item SWB measures, particularly when they are offered as straightforward measures of happiness or as a perfect proxy for economic conceptions of utility or human welfare.

The limitations of the single-item SWB measures are not, however, fatal. Split-sample surveys aid in the identification of ordering effects. Further, “[t]he idiosyncratic effects of recent, irrelevant events are likely to average out in representative population samples,” thus alleviating the concern about their distortionary impact on global life evaluations. Retrospective evaluations of SWB, moreover, have been shown to predict subsequent behavior in a number of domains, providing further support for their validity. More importantly for this analysis, the cognitive/evaluative

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88 Time spent on childcare and work, for example, impact single-item measures of well-being more consistently than they do repeated measures such as DRM and ESM, perhaps because “[r]espondents who answer abstract evaluative questions about activities are likely to be reminded that both work and childcare are desirable aspects of their life.” Daniel Kahneman & Alan B. Krueger, Developments in the Measurement of Subjective Well-Being, 20 J. ECON. PERSPECTIVES, 3 (2006).
89 Martha Nussbaum’s recent commentary on the empirical study of well-being, for example, characterizes SWB measures as blunt instruments that “bully” respondents into a reductive exercise: “people are simply told that they are to aggregate experiences of many different kinds into a single whole, and the authority of the questioner is put behind that aggregation.” Nussbaum goes on to note that SWB fails to account for “bad pleasures” and “good pains.” Martha C. Nussbaum, Who is the Happy Warrior? Philosophy Poses Questions to Psychology, 37 J. LEGAL STUD. 81, 86-99 (2008).
90 See id.
91 Kahneman & Krueger, supra note 88, at 7.
92 See id. at 7 (noting that job satisfaction is a strong predictor of employee turnover).
component of single-item SWB responses—a feature that is part and parcel “of judgment and of memory” effects described above—may actually be a boom in cases where an enduring sense of well-being, rather than an unfiltered measure of “hedonic flow,” is required. The relationship between single-item SWB measures and the operative concept of harm in the tort context is discussed further in Section II.C.

B. Health and Subjective Well-Being

The relationship between SWB and self-assessed health is well-established in the literature. Often touted as the “strongest predictor of SWB” during adulthood, perceived health is a function of both objective health status—physician-rated health mortality, functional decline, and health care utilization all being robust correlates—and affective orientation. Self-assessed health, in other words, is partially determined by actual health and partially determined by individual tendencies to see things in either a positive or negative light. The two components of self-assessed

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93 Id. at 9.
99 See Okun & George, supra note 94; Goldman, Glei & Chang, supra note 95. Further, the stigma (or perceived stigma) associated with mental health issues and treatment could potentially lead individuals to distort their answers to survey questions regarding their emotional health. In the healthcare context, for example, individuals
health correspond to two different frameworks for analyzing SWB: so-called “bottom-up” theories, in which life events and circumstances combine determine SWB at the level of experience, and “top-down” theories, which emphasize the role of genetics and personality in the determination of SWB.\textsuperscript{100}

Much of the extant research on the health/SWB connection, however, employs measures that subsume both emotional and physical health.\textsuperscript{101} Among the studies that do account for emotional health, none have sought to specifically analyze subpopulations suffering no physical harm.\textsuperscript{102} In short, there appear to be no analyses of the hedonic impact of “stand-alone” emotional harms. The utility of studies using such “global” health measures is thus limited in two ways. First, to the extent that self-assessed health, alone, is used as a proxy for physical health, the model is likely to overestimate the relationship between health and well-being.\textsuperscript{103} Secondly, without a corresponding marker of emotional health, the results are useful only to policy domains in which the physical/emotional distinction is of no great moment. Where the distinction between physical and emotional health does matter, as it does in the law of torts, separate measures of physical and emotional health are required.

sometimes remain silent about mental health conditions, avoid or discontinue treatment, and engage in harmful “self-prejudice.” See, e.g., Patrick Corrigan, \textit{How Stigma Interferes with Mental Health Care}, 59(7) AM. PSYCHOL. 614 (2004); Jo Anne Sirey et al., \textit{Perceived Stigma as a Predictor of Treatment Discontinuation in Young and Older Outpatients with Depression}, 158 AM. J. PSYCHOL. 479 (2001). However, in the context of an anonymous survey, respondents have less reason to distort their answers to avoid stigma. Moreover, the correlation between self-assessed health and various objective measures of health, as discussed above, suggests that they are reliable.

\textsuperscript{100} See, e.g., Bruce Headey, Ruut Veenhoven & Alex Wearing, \textit{Top-Down Versus Bottom-Up Theories of Subjective Well-Being}, 24 SOC. INDICATORS RES. 81 (1991).


\textsuperscript{103} See Okun & George, \textit{supra} note 94.
C. Subjective Well-Being and Civil Damages

Research on SWB offers a unique opportunity to circumvent conventional economic analyses of damages and supplement the *ad hoc* valuation methods currently used in courts. Accordingly, a number of recent papers bring empirical results from the SWB literature to bear on the issue of non-economic civil damages. Whereas economic analyses seek to construct a hypothetical demand curve around injury (or risk) avoidance by examining consumption behavior, the hedonic method proceeds by examining at the diminution in well-being that typically accompanies various categories of injuries or life circumstances. The underlying question thus becomes: to what extent are diminutions in individual well-being the appropriate metric to identify injuries and estimate (non-economic) damage awards? In other words, does making an injured party whole mean restoring the injured party to some pre-injury hedonic level or hedonic status quo ante?

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105 In cases where injuries can be remedied through the replacement of a fungible (or nearly fungible) good, market value provides a clear indicator of the extent of the injury. In the context of injuries to irreplaceable or non-market goods – life, limb, emotional tranquility, and general enjoyment of life – economics can provide only limited answers. Contingent value studies estimate the value of non-market goods through the use of surveys, posing various hypothetical scenarios to individuals and asking them to provide an amount of money that they would pay/accept to avoid/assume a hypothetical risk, such as polluted air. The resulting values are called, respectively, willingness-to-pay (WTP) values and willingness-to-accept (WTA) values. Another econometric technique used to estimate the (implicit) value of life and limb uses consumption behavior in real market settings rather than survey data. One version of this technique employs compensating wage differentials, or differences in wage rates associated with different levels of workplace risk, to evaluate implicit values of the losses associated with such risk. Where the risk in question is the risk of death, the resulting value is called the “value of a statistical life” or VSL. VSL estimates, it should be noted, are used in the regulatory context and not in the trial context. See Eric Posner and Cass Sunstein, *Dollars and Death*, 72 U. Chi. L.R. 537, 549 (2005)(noting that, pursuant to executive orders 12291 and 12866, regulatory agencies have used VSL values to perform cost benefit analyses of proposed regulations for decades). See Generally Richard Pildes and Cass R. Sunstein, *Reinventing the Regulatory State*, 62 U. Chi. L. Rev. 1 (1995).

106 While the adoption of the term “hedonic damages” by a number of courts might have hastened the application of happiness research to this area of study, the application of happiness research to damage issues is, independently of the judicial usage of the term, a natural extension of the economic analysis of damages. Moreover, the application of happiness research to civil damage awards extends beyond the scope of what are commonly called “hedonic damages.” See, e.g., Cass R. Sunstein, *Illusory Losses*, 37 J.L.
There are several reasons to think that SWB is a useful tool for informing the patchwork of rules used to determine damages in tort, even if one (reasonably) concludes that hedonic responses to injuries are not the sole criterion for identifying and/or quantifying damage awards. Two key features of SWB that stand out are its simplicity and its broad conceptual reach. SWB, as measured by single-item survey measures, is a global evaluation of one's life—an aggregation of positive affect, negative affect and goal-fulfillment, filtered and weighted through a subjective lens that reflects one's own values. Indeed, it is difficult to imagine a single empirical measure that better captures human functioning and flourishing, which may be why the concept has enjoyed such resonance through time. Indeed, SWB still resonates today:

[P]eople the world over think SWB is very important. In a survey of college students from 17 countries, Diener found that happiness and life satisfaction were both rated well above neutral on importance (and more important than money) in every country, although there was also variation among cultures. Furthermore, respondents from all samples indicated that they thought about happiness from time to time. Thus, even those from relatively unhappy societies value happiness to some extent.107

Moreover, SWB also moves in expected ways with many items on so-called “objective-lists,” or philosophical inventories of fundamental human freedoms and/or entitlements without which “no society can lay claim to basic justice.”108 One such list, offered by prominent philosopher Martha Nussbaum as an alternative to SWB survey measures, includes health, access to education, political and material autonomy, and the ability to enjoy recreation and social activities.109 That all of the above items are positively correlated with SWB110 is evidence of its usefulness, if not as a conclusive measure of human functioning writ large, then at least as an

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108 See Nussbaum, supra note 89, at S105.
109 See id. at S110-11.
110 See Stevenson &Wolfers, supra note 64; Burton et.al, supra note 65; Stevenson & Wolfers, supra note 66; Stutzer &Frey et al., supra note 67; Frey et al., supra note 68; Frey & Stutzer et al, supra note 69; Oswald & Powdithavee, supra note 70; Cohen, supra note 71; Ellison, supra note 72; Michalos, supra note 73; Tella et al., supra note 74; Blanchflower & Oswald, supra note 75; Sparrow, supra note 76.
efficient tool to capture quality of life in certain judicial contexts, where injuries must often be reduced to a single (dollar) figure.

Recognizing the potential of SWB as a meaningful, if imperfect, proxy for the quality of life, legal commentators have begun to apply SWB research in the tort context. Sunstein's recent piece on the issue is illustrative. Noting the tendency of individuals to overestimate the adverse impact of many physical problems and, further, the fact that “[t]hose who face such problems experience unexpectedly little in the way of hedonic loss,” Sunstein suggests that courts should draw a line between “harms that impose enduring losses, such as chronic pain and mental illness, and harms that do not, such as losses of fingers and toes.” While Professor Sunstein is clear that not all injuries are to be defined hedonically—he carves out an exception for loss of capability—his argument ultimately rests on the importance of well-being to our conception of injuries. The enduring hedonic losses associated with unemployment—losses above and beyond those associated with lost wages—have also been invoked by proponents of broader recovery rules in the employment discrimination context.

Other commentators are less sanguine about the use of hedonic measures to identify injuries in tort, particularly where such measures are posited as a replacement for, rather than a complement to, existing notions of harm:

[P]eople care about many things that are not purely hedonic, such as meaning, capabilities, and range of feeling and experience. If this is the case, it would be seriously misguided to ignore the expressed distaste of all three groups for the health conditions in question and to base valuations of noneconomic damages on a notion of well-being that is far narrower than that adopted by individuals themselves.

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111 Sunstein, supra note 3 at S166
112 Id. at S158.
113 See Andreas Knabe & Steffen Rätzel, Scarring or Scaring? The Psychological Impact of Past Unemployment and Future Unemployment Risk, 78 ECONOMICA 283; Richard E. Lucas et al., Unemployment Alters the Set-Point for Life Satisfaction, 15 PSYCHOL. SCI. 8 (2004); Andrew E. Clark, Yannis Georgelli & Peter Sanfey, Scarring: The Psychological Impact of Past Unemployment, 68(270) ECONOMICA 221 (2001); Wiji Arulamalam, Paul Gregg & Mary Gregory, Unemployment Scarring, 111 ECON. J. F577 (2001).
115 Ubel & Lowenstein, supra note 3 at S197.
Similarly, Swedloff and Huang push back against the growing revolution of SWB research in legal academe, echoing the above concerns and noting, further, that many of the findings in the literature, such as adaptation, are not as robust and well-understood as they seem.116 Further challenging Sunstein's conclusions, Swedloff and Huang argue that juries might already be compensating for the fading psychological impact of injuries.117 Ultimately, much of the resistance to the incorporation of SWB research into tort law appears to stem from a fear that hedonic responses, if accepted as a workable proxy for harm, will supplant other considerations entirely and, perhaps, be used to limit certain types of recovery. Insofar as the instant analysis seeks neither to define damages in strictly hedonic terms nor to limit damages of a certain type, the above concerns may be allayed. Nonetheless, the import of the findings presented below depends on whether hedonic states ultimately matter in the context of tort damages.

III. DATA AND METHODS

The data used in the following analyses are obtained from the General Social Survey (GSS) series, which is representative of the non-institutionalized, English-speaking U.S. population over the age of 18. The repeated cross-sections of the GSS contain data on a broad range of demographic and attitudinal dimensions, including well-being, health, income, education, family composition, health and political ideology.118 To date, the GSS survey has been administered to more than 55,000 respondents: approximately 1500 each year between 1972 and 1993 (with some gaps) and approximately 3000 every other year from 1994 to the present.119 Only a fraction of the GSS data, however, are usable in the present analyses. While the survey instrument for subjective well-being – the dependent variable in all three regression models – appears in all waves of the GSS, the self-assessed health variables used here are confined to the year 2000 wave and the year 2006 wave.120 After omitting observations without all of the variables of interest, the number of observations in the regressions below range from 910 to 2,236.

116 See Swedloff & Huang, supra note 3, at 554.
117 See id. at 580.
118 See Davis, Smith & Marsden, supra note 77.
119 See Id.
120 See Id.
A. Key Variables

Subjective well being, the dependent variable in all of the analyses, is measured on a one to three scale based on the following GSS survey instrument: “Taken all together, how would you say things are these days – would you say that you are very happy, pretty happy, or not too happy?”\textsuperscript{121} The independent variables used to capture mental health – "MNTLHLTH," "DIDLESSE," and “CRELESSE” – pose the following questions, respectively, to GSS survey respondents:

MNTLHLTH: “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?”\textsuperscript{122}

DIDLESSE: “During the past 4 weeks, have you had any of the following problems with your work or other daily activities as a result of any emotional problems (such as feeling depressed or anxious)?...Accomplished less than you would like?”\textsuperscript{123}

CRELESSE: “During the past 4 weeks, have you had any of the following problems with your work or other daily activities as a result of any emotional problems (such as feeling depressed or anxious)?...Didn't do work or other activities as carefully as usual?”\textsuperscript{124}

The analogous physical health survey instruments—used in some, but not all, of the regression models—pose the following questions to respondents:

PHYSHLTH: “Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not

\textsuperscript{121} Id. at 231. The SWB variable used in the current analysis, it should be noted, is a recoded version of the GSS variable “HAPPY.” In the original version of HAPPY, higher levels of SWB correspond to lower response scores; in the recode, higher response values reflect higher levels of SWB.

\textsuperscript{122} Id. at 1146.

\textsuperscript{123} Id. at 1091.

\textsuperscript{124} Id.
good?"\textsuperscript{125} 

**DIDLESSP:** “During the past four weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health? Accomplished less than you would like?”\textsuperscript{126} 

**LIMITEDP:** “During the past four weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health? Were limited in the kind of work or other activities?”\textsuperscript{127} 

Each of the three mental health variables appears in two different ordinary least squares\textsuperscript{128} regressions: one of which contains the analogous (similarly-worded and scaled) physical health variables, and one stand-alone specification that does not contain the analogous physical health variables, but is performed on the survey subpopulation that reports no physical problems. The control variables, all of which bear consistent and significant connections with SWB in prior work, include marital status, age, race, and gender.\textsuperscript{129} 

Income, as one of the most consistent and strong correlates of SWB,\textsuperscript{130} is also included in the analysis. The inclusion of (log household) income is particularly important in light of its likely correlation with both reported physical and mental health. As previously mentioned, though the physical and mental health variables used in the current analysis are intended to shed light on the impact of various injuries that might arise in tort cases, the actual health limitations reflected in the data are not necessarily the result of tortious behavior. In fact, the data reveal little about the etiology or subsequent treatment of the conditions. Insofar as individuals with higher incomes are better able to treat or mitigate the effects of health conditions, the omission of income would bias the coefficients on the mental health

\textsuperscript{125} *Id.*  
\textsuperscript{126} *Id.*  
\textsuperscript{127} *Id.*  
\textsuperscript{128} Importantly, ordered probit estimates—the form typically chosen for ordinal-level dependent variables—yield essentially the same results as the OLS regressions described below.  
\textsuperscript{129} See Stevenson & Wolfers, supra note 64; Burton et al., supra note 65; Stevenson & Wolfers, supra note 66; Stutzer & Frey et al., supra note 67; Frey et al., supra note 68; Frey & Stutzer et al, supra note 69; Oswald & Powdithavee, supra note 70; Cohen, supra note 71; Ellison, supra note 72; Michalos, supra note 73; Tella et al., supra note 74; Blanchflower & Oswald, supra note 75; Sparrow, supra note 76.  
\textsuperscript{130} See Stevenson & Wolfers, supra note 64.
variables. Moreover, vis-a-vis low-income individuals and/or families, those of greater economic means are generally exposed to less risk and better educated about health conditions. Thus, given the goal of this inquiry—to measure the impact of emotional harms on well-being, given the fact that they occur and given the fact that some individuals may already be treating them—income should be included among the variables. The inclusion of income also allows for the calculation of monetary equivalents for changes in emotional health. The problems associated with applying this type of data to the tort context is discussed below, in Section V.B. For all of the regressions, the survey (“SVY”) settings in STATA are used to adjust for the complex sampling design of the GSS.

IV. RESULTS

Tables 1-3 present the results of the regressions, and Table 4 translates the hedonic impact of the various health conditions into rough monetary equivalents.\(^{131}\) The control variables generally bear the expected relationships with SWB. Other things equal, married respondents report higher SWB than their unmarried (divorced, separated, never married) counterparts. Black respondents, further, report lower SWB than white respondents. As in other studies, female respondents report higher SWB than males, other things equal, though the female dummies failed to reach significance in any of the instant regressions. Taken together, the coefficients on age and its square indicate a U-shaped (curvilinear) relationship with SWB, though the age variables reached significance only in the first set of regressions.\(^{132}\)

As expected, the (log household) income variables are significant in all of the regressions, exhibiting a positive, if modest, relationship with SWB. The modest size of the income coefficients, it should be noted, leads to

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\(^{131}\) Since the household income variable is log-transformed, each percent change in income impacts SWB, in unit terms, by \(1/100^b\) of the income coefficient. The monetary equivalents can be approximated by multiplying the ratio of the coefficients for household income and the relevant health variable by the average sample household income. The product of these two terms is the approximate amount of money that would bring an individual of average household income to the same level of SWB that would be predicted, other things equal, in the absence of the health condition. For example, in the first regression model presented, the variable MNTLHLTH has a coefficient of (0.020) and log of household income has a coefficient of (0.055). Multiplying (0.020/0.055) by $40,516.70 yields a monetary equivalent of $14,733.

\(^{132}\) One plausible explanation for the non-significance of age and age-squared in the latter two regressions is the presence of the health variables, which likely capture some of the SWB variance explained by age.
large monetary equivalents for the health conditions. Reassuringly, this finding is in line with other studies using SWB and life-satisfaction measures to value intangible goods.\footnote{See, e.g., Nattavudh Powdthavee & Bernard van den Berg, Putting Different Price Tags on the Same Health Condition: Re-evaluating the Well-Being Valuation Approach, 30 J. Health Econ. 1032 (2011) (finding a “shadow price,” or monetary equivalent, of depression & anxiety to be £455,131,000.00 per annum – 45,000 times the average income in the study – and noting that “on average, health matters significantly more to our subjective well-being than do incomes”); Ada Ferrer-i-Carbonell & Bernard M.S. van Praag, The Subjective Costs of Health Losses Due to Chronic Diseases. An Alternative Model for Monetary Appraisal, 11 Health Econ. 709 (2002) (estimating the impact of various health conditions on life satisfaction, and finding that skin conditions and digestive problems impact well-being as much as income reductions of 26.3% & 47.1%, respectively); Nattavudh Powdthavee, Putting a Price Tag on Friends, Relatives, and Neighbours: Using Surveys of Life Satisfaction to Value Social Relationships, 37 J. Socio-Economics 1459 (2008) (“the extremely large valuations of social relationships and other life events in terms of income per capita are only a reflection of the weak role of income in these life satisfaction equations.”).} It should be noted, further, that the rough monetary figures provided in Table 4 do not account for hedonic adaptation, which may limit the amount of time in which well-being is negatively impacted by the relevant health condition.\footnote{See, e.g., Andrew J. Oswald and Nattavudh Powdthavee, Does Happiness Adapt? A Longitudinal Study of Disability with Implications for Economists and Judges, 92 J. Pub. Econ. 1061 (2008); Peter A. Ubel & George Loewenstein, Pain and Suffering Awards: They Shouldn’t Be (Just) About Pain and Suffering, 37 J. Legal Stud. S195 (2008); Stephen Wu, Adapting to Heart Conditions: A Test of the Hedonic Treadmill, 20 J. Health Econ. 495 (2001).}

Table 1 presents the results of the regressions that capture emotional health with the MNTLHLTH variable. MNTLHLTH is significant at the (p=.01) level in both regressions while PHYSHLTH fails to reach significance at the (p=.10) level. The magnitude of the MNTLHLTH coefficient is similar across the standard and stand-alone models, suggesting that the MNTLHLTH variable is not capturing the emotional effects of physical conditions to a great extent (or alternatively, that the impact of emotional health on SWB is not contingent on the presence of physical conditions). In the standard specification, each day of poor emotional health corresponds to a diminution in SWB of approximately 0.20 units; a decrease commensurate with a $14,733 decrease in family income. Each day of stand-alone poor physical health corresponds to a diminution in SWB by 0.017 units; a decrease in SWB commensurate with a $9,800 decrease in family income.

Respondents whose emotional conditions led them to accomplish “less than they would have liked” in the 4 weeks preceding the survey – as captured by the DIDLESSE variable – experienced between a 0.371 and

\textsuperscript{133} See, e.g., Nattavudh Powdthavee & Bernard van den Berg, Putting Different Price Tags on the Same Health Condition: Re-evaluating the Well-Being Valuation Approach, 30 J. Health Econ. 1032 (2011) (finding a “shadow price,” or monetary equivalent, of depression & anxiety to be £455,131,000.00 per annum – 45,000 times the average income in the study – and noting that “on average, health matters significantly more to our subjective well-being than do incomes”); Ada Ferrer-i-Carbonell & Bernard M.S. van Praag, The Subjective Costs of Health Losses Due to Chronic Diseases. An Alternative Model for Monetary Appraisal, 11 Health Econ. 709 (2002) (estimating the impact of various health conditions on life satisfaction, and finding that skin conditions and digestive problems impact well-being as much as income reductions of 26.3% & 47.1%, respectively); Nattavudh Powdthavee, Putting a Price Tag on Friends, Relatives, and Neighbours: Using Surveys of Life Satisfaction to Value Social Relationships, 37 J. Socio-Economics 1459 (2008) (“the extremely large valuations of social relationships and other life events in terms of income per capita are only a reflection of the weak role of income in these life satisfaction equations.”).


\textsuperscript{135} The conversion method is discussed infra footnote 132.
0.378 decrease in SWB, depending on the specification. The monetary equivalents for DIDLESSE are $256,563 and $203,441. That is, the diminution in SWB associated with answering “yes” to the DIDLESSE question would be approximately offset by a $256,563 rise in household income for the standard specification and an approximately $203,441 rise in household income for the stand-alone specification. Answering “yes” on DIDLESSP – accomplishing less due to physical problems – corresponds to a $84,368 change in family income. Both DIDLESSE and DIDLESSP (where present) were significant at the (p=.01) level.

Being limited in work or other activities due to emotional health (over the 4 weeks preceding the survey) impacts SWB negatively, to the tune of .222 hedonic units (or .185 for the stand-alone specification). The inability to do work or other activities as carefully as usual in light of physical problems is associated with a 0.140 drop in SWB. The monetary equivalents for CRELESSE are $133,019 for the standard model and $99,555 for the stand-alone model. The monetary equivalent for LIMITEDP is $83,886. CRELESSE and LIMITEDP were significant at the (p=.01) level in the standard specification, and CRELESSE was significant at the (p=.05) level in the stand-alone specification.

V. DISCUSSION

The three above analyses suggest that emotional health conditions, including those free of concomitant physical manifestation or symptoms, impact SWB negatively, and to a significant extent. In fact, in all of the regressions accounting for both physical and mental health, the latter uniformly bore stronger connections to SWB than the former. While perhaps unremarkable on their face, the results gain significance when viewed through the lens of tort law. That is, many of emotional harms found to have a large and significant impact on SWB in the instant inquiry would be subject to dismissal in court, and would therefore carry an effective damage valuation of zero. The following sub-sections address the limitations of the analysis, both in general and as applied to the tort context.

A. The Distinction Between SWB and Emotional Health

Given the conceptual similarity between SWB and emotional health, the following question warrants serious attention: are mental harms, as defined in the survey instruments MNTLHLTH, DIDLESSE, and CRELESSE, so closely related to SWB as to make the current inquiry question-begging? A
The quickest answer to the question is statistical in nature. If the various measures of mental health and the construct of SWB are, in fact, identical, they would bear correlations that approach unity, rendering other aspects of life insignificant in determining SWB. In fact, however, the correlations between SWB and the emotional health variables used in this analysis bear far more modest correlations, ranging from approximately 0.3 to 0.4.

136 See Davis, Smith & Marsden, supra note 77.
137 See id.
140 To the extent that repeated measures of SWB, such as ESM and DRM, more closely capture moment-by-moment affective experience without also capturing the cognitive/reflective component of SWB, such items would be harder to distinguish from the emotional health measures used herein.
141 See Ed Diener & Robert A. Emmons, The Independence of Positive and Negative
The Hedonic Impact of Emotional Harms

affect. Thus, under accepted definitions of SWB, it is quite distinguishable from the types of mental health conditions covered by MNTLHLTH, DIDLESSE, and CRELESSE.

B. Applicability of Results to the Tort Context

1. Broad/Vague Survey Questions – What Conclusions Can We Draw?

As mentioned earlier, the emotional health variables used in this analysis reveal little about the specific nature of the emotional conditions that underlie any particular numerical survey response. Rather, the questions are framed broadly, requiring the respondents to impose their own interpretations on the questions in order to arrive at a response. In answering the MNTLHLTH question, for example, each respondent makes her own decision about whether or not a given condition (or group of different conditions) merits inclusion in the tally of days in which her "mental health [was] not good." To varying extents, this problem applies to all three sets of mental health variables used in this analysis. The CRELESSE and DIDLESSE variables, which frame emotional health in functional rather than clinical terms, afford a considerable amount of interpretive freedom to respondents in distinguishing between de minimis stresses and those that hinder regular functioning enough to warrant reporting them. As a result, each numerical survey response reflects a distribution of health issues, both in terms of their medical/clinical characterization and their severity. As mentioned previously, the survey questions also reveal nothing about the length of time that the respondents have suffered from (and/or adapted to) the conditions that underlie their responses. The broad framing of the emotional health questions would thus effectively preclude any attempt to generate precise damage awards for specific emotional health issues.

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144 Davis, Smith & Marsden, supra note 77.
145 With more detailed information about the underlying emotional conditions, one
The nature of the self-assessed health measures also renders the comparison between physical health and emotional health problematic. Without any guidance as to the nature of each type of injury, any cross-category comparison is fundamentally an apples-to-oranges comparison. In other words, if there is a systematic difference in the threshold for inclusion across the physical and mental categories (for any of the question pairs), the comparison will be difficult to interpret. For example, if people count *de minimis* physical pain in the tally, but only count extremely serious mental issues in the count, the comparison between MNTLHLTH and PHYSHLTH will be difficult to interpret. Though the similar wording and scaling of the physical and emotional health survey questions makes direct comparisons tempting, this aspect of the results should be interpreted cautiously.

Ultimately, however, the more modest goal of this inquiry is to test whether emotional harms – including instances of stand-alone emotional distress – impact SWB at all. Recall that claims based on emotional distress of *any severity* would be barred in a variety of circumstances: (1) in jurisdictions that deny NIED claims altogether, if the harm is the result of negligence; (2) in IIED cases where the offending behavior is not of a sufficiently egregious nature, regardless of the severity of the resulting emotional harm; (3) in jurisdictions that require a physical impact or manifestation, regardless of the severity of the emotional disturbance. Thus, although the GSS survey questions obscure the precise nature of the emotional harms that underlie the survey responses (and make physical/emotional comparisons problematic), such aspects are not of paramount importance given the limited goals of this inquiry.

2. External Validity

The use of survey data from outside the tort context to bear upon issues within tort raises issues of external validity. To some extent, this analysis revolves around the notion that harms are harms, whether they are due to the tortious behavior of another or not. However, psychological studies suggest that this is not the case. Causal attribution concerning the etiology of health conditions impacts both the experienced severity of the condition could compare damage awards issued in court cases with (survey-based) monetary equivalents for similar conditions. Such a comparison would indicate whether certain types of injuries are overvalued or undervalued in court, at least in terms of their impact on SWB. Unfortunately, the range of health conditions covered and the level of generality at which the health questions are framed in the GSS – and in similar data sets which include SWB questions – make it difficult to map such survey responses onto tort verdicts in any coherent way.

146 *See supra* Section I and accompanying notes 15-63.
as well as the coping/adaptation process.\textsuperscript{147} In other words, individuals who blame others for their health conditions tend to have worse symptoms and recover more slowly. Thus, to the extent that some (or most) of the emotional health conditions experienced by the survey populations used in the instant inquiry were not the result of tortious behavior (or otherwise not the fault of others), the figures presented in Tables 1-3 are likely conservative.\textsuperscript{148} Again, were the goals of this inquiry to precisely determine monetary equivalents for specific health conditions caused by tortious behavior, the use of survey data from outside the tort context would be inappropriate. In the context of this analysis, however, the conservative nature of the estimates actually bolsters the claims. That is, if emotional harms, many of which are likely not the result of tortious behavior, bear a significant negative impact on SWB, then emotional damages sustained at the hands of a tortfeasor would—per the above findings on causal attribution—presumably bear an even greater impact on SWB.

Of course, the relevance of the results still hinges, crucially, on one's belief in the importance of hedonic states. Ultimately, those inclined to think of legally cognizable injuries in (partially) hedonic terms and/or those convinced that survey measures of well-being capture something meaningful about the quality of life will place more stock in the findings. Moreover, the results presented herein are not directly responsive to the many practical arguments often used to defend the physical/emotional distinction in tort, including the problem of malingering among mental health claimants. To the extent that such practical arguments serve as pretext for a more fundamental suspicion about the importance of emotional health, however, the results suggest that the current treatment of emotional harms in tort are misguided. Further, if malingering can be curbed through vigorous cross-examination and expert testimony, the rules of tort have little reason to disfavor emotional harms, as a category, by subjecting them to harsher standards. Rather, the jury (or judge) should be allowed to assess the merits of each case—in terms of the severity/genuineness of injury—on an equal footing, regardless of the category of injury.


\textsuperscript{148} The estimates, it should be noted, might also be conservative for another reason: because they are not motivated by financial gain (external incentives for recovery), respondents have less of a reason to exaggerate their conditions/limitations.
CONCLUSION

Notwithstanding significant strides towards what might be called mental health parity in tort law, the treatment of physical injuries remains privileged. Using survey data on SWB, this paper shows that a range of emotional harms that might be subject to dismissal in courts—including stand-alone claims of emotional distress—bear a significant impact on SWB. To the extent that the unequal treatment of physical and emotional harms is based not upon practical concerns but upon the belief that mental health is less important to the quality of life—and to what makes us “whole,” as aggrieved litigants and as human beings—the findings presented here challenge the distinctions currently drawn in tort.
Table 1 – OLS Regression Results

Dependent Variable: Subjective Well Being
Independent Variables of Interest: “MNTLHLTH” (# of days in past month that mental health was “not good”)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standard Regression:</th>
<th>“Stand-Alone” Regression:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNTLHLTH</td>
<td>-0.020 *** (0.002)</td>
<td>-0.017*** (0.003)</td>
</tr>
<tr>
<td>PHYSLTH</td>
<td>-0.003 (0.002)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.024*** (0.006)</td>
<td>-0.027*** (0.007)</td>
</tr>
<tr>
<td>Age Squared</td>
<td>0.000*** (0.000)</td>
<td>0.000*** (0.000)</td>
</tr>
<tr>
<td>Female</td>
<td>0.036 (0.029)</td>
<td>0.025 (0.037)</td>
</tr>
<tr>
<td>Black</td>
<td>-0.064 (0.043)</td>
<td>-0.011 (0.046)</td>
</tr>
<tr>
<td>2006</td>
<td>-0.024 (0.032)</td>
<td></td>
</tr>
<tr>
<td>Log HH Income</td>
<td>0.055*** (0.019)</td>
<td>0.053** (0.024)</td>
</tr>
<tr>
<td>Widowed</td>
<td>-0.341*** (0.076)</td>
<td>-0.346*** (0.093)</td>
</tr>
<tr>
<td>Divorced</td>
<td>-0.274*** (0.038)</td>
<td>-0.242*** (0.048)</td>
</tr>
<tr>
<td>Separated</td>
<td>-0.413*** (0.075)</td>
<td>-0.359*** (0.110)</td>
</tr>
<tr>
<td>Never Married</td>
<td>-0.289*** (0.039)</td>
<td>-0.315*** (0.051)</td>
</tr>
</tbody>
</table>

R-squared .1382 .0998
N 2236 48575
N (subpop) 1474

Legend: b/se (*p<.05; **p<.01; ***p<.001); Standard errors are in parentheses.
Notes: Stand-Alone regression was performed on respondents who indicated, via the PHYSLTH variable, that they experienced no bad days of physical health in the past month. “2006” is a dummy variable indicating the year the survey was administered; the reference category is the year 2004. The reference category for the marital status dummies is “married.”
Table 2 – OLS Regression Results

Dependent Variable: Subjective Well Being
Independent Variables of Interest: “DIDLESSE” (emotional condition impaired work, daily activities)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standard Regressions:</th>
<th>“Stand-Alone” Regressions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIDLESSE</td>
<td>-0.371*** (0.056)</td>
<td>-0.378 *** (0.063)</td>
</tr>
<tr>
<td>DIDLESSP</td>
<td>-0.122*** (0.036)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.001(0.006)</td>
<td>0.001 (0.008)</td>
</tr>
<tr>
<td>Age Squared</td>
<td>0.000(0.000)</td>
<td>0.000 (0.000)</td>
</tr>
<tr>
<td>Female</td>
<td>0.046(0.036)</td>
<td>0.050 (0.041)</td>
</tr>
<tr>
<td>Black</td>
<td>-0.176*** (0.052)</td>
<td>-0.165** (0.066)</td>
</tr>
<tr>
<td>Log HH Income</td>
<td>0.046* (0.024)</td>
<td>0.057** (0.026)</td>
</tr>
<tr>
<td>Widowed</td>
<td>-0.167** (0.068)</td>
<td>-0.077 (0.096)</td>
</tr>
<tr>
<td>Divorced</td>
<td>-0.166*** (0.050)</td>
<td>-0.173*** (0.056)</td>
</tr>
<tr>
<td>Separated</td>
<td>-0.307*** (0.110)</td>
<td>-0.275** (0.131)</td>
</tr>
<tr>
<td>Never Married</td>
<td>-0.205*** (0.052)</td>
<td>-0.140** (0.056)</td>
</tr>
</tbody>
</table>

R-squared .1500 .1120
N 1196 49250
N (subpop) 910

Legend: b/se (*p<.05; **p<.01; ***p<.001); Standard errors are in parentheses
Notes: Stand-Alone regression was performed on respondents who indicated, via the DIDLESSP variable, that they experienced no bad days of physical health in the past 4 weeks. The reference category for the marital status dummies is “married.”
Table 3 – OLS Regression Results

Dependent Variable: Subjective Well-Being
Independent Variables of Interest: “CRELESSE” (less attention on work and/or less careful work due to emotions)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standard Regressions:</th>
<th>“Stand-Alone” Regressions:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b/se</td>
<td>b/se</td>
</tr>
<tr>
<td>CRELESSE</td>
<td>-0.222***</td>
<td>-0.185**</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.079)</td>
</tr>
<tr>
<td>LIMITEDP</td>
<td>-0.140***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.045)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.001</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.006)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Age Squared</td>
<td>0.000</td>
<td>-0.000</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Female</td>
<td>0.038</td>
<td>0.055</td>
</tr>
<tr>
<td></td>
<td>(0.037)</td>
<td>(0.039)</td>
</tr>
<tr>
<td>Black</td>
<td>-0.156***</td>
<td>-0.184***</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.070)</td>
</tr>
<tr>
<td>Log HH Income</td>
<td>0.053**</td>
<td>0.057**</td>
</tr>
<tr>
<td></td>
<td>(0.025)</td>
<td>(0.027)</td>
</tr>
<tr>
<td>Widowed</td>
<td>-0.197***</td>
<td>-0.099</td>
</tr>
<tr>
<td></td>
<td>(0.069)</td>
<td>(0.108)</td>
</tr>
<tr>
<td>Divorced</td>
<td>-0.186***</td>
<td>-0.188***</td>
</tr>
<tr>
<td></td>
<td>(0.050)</td>
<td>(0.054)</td>
</tr>
<tr>
<td>Separated</td>
<td>-0.338***</td>
<td>-0.314***</td>
</tr>
<tr>
<td></td>
<td>(0.107)</td>
<td>(0.117)</td>
</tr>
<tr>
<td>Never Married</td>
<td>-0.211***</td>
<td>-0.145**</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.056)</td>
</tr>
<tr>
<td>R-squared</td>
<td>.1125</td>
<td>.0862</td>
</tr>
<tr>
<td>N</td>
<td>1194</td>
<td>49242</td>
</tr>
<tr>
<td>N (subpop)</td>
<td></td>
<td>928</td>
</tr>
</tbody>
</table>

legend: b/se (*p<.05; **p<.01; ***p<.001); Standard errors are in parentheses
Notes: Stand-Alone regression was performed on respondents who indicated, via the LIMITEDP variable, that they experienced no bad days of physical health in the past 4 weeks. The reference category for the marital status dummies is “married.”

Table 4 – Monetary Equivalents for Emotional and Physical Conditions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standard Regression:</th>
<th>“Stand-Alone” Regression:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>MNTLHLTH</td>
<td>$14,733</td>
<td>$9,800</td>
</tr>
<tr>
<td>PHYSHLTH*</td>
<td>$2,210</td>
<td>N/A</td>
</tr>
<tr>
<td>DIDLESSE</td>
<td>$256,563</td>
<td>$203,441</td>
</tr>
<tr>
<td>DIDLESSP</td>
<td>$84,368</td>
<td>N/A</td>
</tr>
<tr>
<td>CRELESSE</td>
<td>$133,020</td>
<td>$99,555</td>
</tr>
<tr>
<td>LIMITEDP</td>
<td>$83,886</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Not significant at the 90% (p=.10) level.