NOTES

MODERNIZING THE CRITIQUE OF PER DIEM PAIN AND SUFFERING DAMAGES

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INTRODUCTION

Judge Paul Niemeyer of the United States Court of Appeals for the Fourth Circuit recently labeled pain and suffering damages the “irrational centerpiece of our tort system.” Many scholars agree, and some have proposed various changes to the way the current tort regime operates with respect to these noneconomic damages. Others have called more bluntly for the abolition of pain and suffering damages altogether. State legislatures have implemented statutory reform, often in the form of noneconomic damage caps.

Less well theorized is the popular per diem (also known as the time-unit) method, used in some cases to calculate pain and suffering damages. Under the per diem theory, a plaintiff argues that his

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2 See, e.g., Mark Geistfeld, Placing a Price on Pain and Suffering: A Method for Helping Juries Determine Tort Damages for Nonmonetary Injuries, 83 Cal. L. Rev. 773, 775 (1995) (proposing that “juries assess damages from an ex ante perspective that asks how much a reasonable person would have paid to eliminate the risk that caused the pain-and-suffering injury”).

3 See generally Joseph H. King, Jr., Pain and Suffering, Noneconomic Damages, and the Goals of Tort Law, 57 SMU L. Rev. 163 (2004).

4 See, e.g., Alaska Stat. § 09.17.010 (Michie 1997) (capping noneconomic damages at $400,000 for most injuries and at $1,000,000 for injuries resulting in “severe” permanent physical impairment or disfigurement); Cal. Civ. Code § 3333.2 (West 1997) (originally enacted in 1975) (limiting noneconomic damages in medical malpractice actions to a maximum of $250,000); Md. Code Ann., Cts. & Jud. Proc. § 11-108(b)(2) (2002) (capping noneconomic damages at $500,000, but providing for an increase of $15,000 each year).
noneconomic loss for a particular time period (often an hour or a day) can be quantified at a (usually small) monetary value. This amount is then multiplied by the number of hours or days that the plaintiff has been injured and will be injured in the future. For example, at trial a plaintiffs’ attorney may suggest to a jury that the plaintiff’s injury will cause a great deal of pain and suffering, but ask for a mere twenty-five dollars a day in non-economic damages. If the plaintiff has a remaining life expectancy of thirty-five years, this seemingly insignificant amount quickly climbs to well over $300,000.5

The majority of jurisdictions accept the per diem technique. The minority of jurisdictions that reject the per diem argument often implicitly or explicitly adopt the Botta rule. Named after the 1958 Supreme Court of New Jersey case Botta v. Brunner,6 this rule forbids the per diem argument on the rationale that pain and suffering damages in personal injury actions must be based on “fair and reasonable compensation,”7 and per diem damages impermissibly deviate from this standard by falsely imputing certainty into a necessarily speculative determination.8 This Note will seek to show why the Botta rule is correct, even though it suffers from incomplete reasoning and still relies primarily on the legal analysis of a single state supreme court case now nearly half a century old. This Note will analyze Botta in the context of the revolution in pain management therapy over the past thirty years, and will show that, with regard to future pain and suffering, the per diem argument does not take into account the evolution of pain theory since the establishment of the current pain and suffering damages regime.

Part I will begin by looking at standards of proof for pain and suffering. As other scholars have shown, jury instructions are amazingly vague on this issue. Skilled plaintiffs’ attorneys can exploit this ambiguity by using the per diem technique in jurisdictions

5 $25 \times 365 \text{ days} \times 35 \text{ years} = \$319,375.
7 Id. at 718.
8 See id. at 718–19 (“There is and there can be no fixed basis, table, standard, or mathematical rule which will serve as an accurate index and guide to the establishment of damage awards for personal injuries . . . . It is . . . futile to undertake to attach a price tag to each level or plateau [of suffering] which could be said to have a reasonable basis in scientific or economic fact. Any effort to do so must become lost in emotion, fancy, and speculation.”).
that permit it. For example, the leading plaintiffs’ attorney publication instructs its readers how to use the per diem argument to circumvent the general prohibition against asking jurors to stand in the shoes of the plaintiff. Part I will then analyze traditional arguments for and against the per diem calculation. With few exceptions, the debate over the per diem technique has not changed significantly over the past forty years. By incorporating the teachings of medical science and psychology on the nature of pain and suffering, this Note intends to make a contribution to this stagnated debate.

Part II will examine the considerable progress that has been made in understanding the nature of pain and suffering. Over the past thirty years, nothing less than a revolution in pain theory has changed how healthcare experts view and study pain. Prior to this theoretical shift, experts saw pain solely as a product of an underlying pathology—if they could cure the pathology, the alleviation of physical pain would follow. This biomedical model of pain omitted psychological and social factors that contribute to how individuals experience pain. The late 1970s saw the ascendance of biopsychosocial models of pain. The cognitive-behavioral treatment approach is one such model that emphasizes the subjective nature of pain. According to this theory, because pain is inherently subjective, individuals can control certain personal factors that influence their pain perception. By supplementing pharmacological treatments with cognitive-behavioral treatments, most individuals can learn to live with and, to a great extent, alleviate chronic pain. The per diem method, however, does not incorporate these advancements in pain management theory. Per diem techniques improperly assume a constant unit of pain that does not account for lessening pain over time. Further, the per diem technique assumes zero future advances in pharmacological and cognitive-behavioral pain treatments. Essentially, the per diem technique attempts to do what a standard plea for pain and suffering damages cannot: cast the proposed pain and suffering damage award as an objective and mathematically derived figure. Since current pain theory demonstrates that pain is subjective and will likely change over time, the per diem method misleads the jury.

Part III will conclude by offering potential ways to implement the Botta rule in jurisdictions that currently permit the per diem
argument. Both legislative and judicial methods present viable reform options, but the best option will vary on a state-to-state basis. Part III will briefly highlight each approach.

I. THE CURRENT STATE OF THE PER DIEM ARGUMENT

Judicial treatment of the per diem method varies greatly by jurisdiction. Jurisdictions choose among three options when deciding on the permissibility of the per diem argument: permit the argument, leave it to the trial judge’s discretion, or deny it entirely. The majority of jurisdictions use one of the first two options. According to one plaintiff-friendly publication, twenty-eight states and the District of Columbia permit use of the per diem, five states leave the decision to the discretion of the trial judge, and thirteen forbid it. Other scholars have cataloged such cases, so the information will not be repeated here.

This Part seeks to fulfill three goals. First, it examines the standards of proof for pain and suffering generally, and for per diem calculations specifically. It also discusses how a plaintiff would ac-

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9 Famous trial lawyer Melvin Belli is best known for popularizing the argument during the early 1950s. See Thomas L. Cooper, The Role of the Per Diem Argument in Personal Injury Suits, 5 Duq. L. Rev. 393, 402 (1966/1967). While Belli is credited for spreading the use of the per diem method, the technique probably goes back to the late nineteenth century and was certainly in use by 1921. See id. at 397–98, 401–02.


11 See Thomas J. Vesper & Richard Orr, Make Time Palpable by Using Per Diem Arguments, Trial, Oct. 2002, at 59, 59. Three other states (Arizona, South Dakota, and Wisconsin) forbid the per diem but permit a lump-sum suggestion. Id. Actually counting states that permit or prohibit the technique can be surprisingly difficult. In Vermont, for example, case law is inconsistent even at the state supreme court level. See King, supra note 10, at 16 n.65 (comparing DeBus v. Grand Union Stores of Vt., 621 A.2d 1288, 1290–91 (Vt. 1993), with Brault v. Flynn, 690 A.2d 1365, 1367 (Vt. 1996)). At least two states not included by Vesper and Orr permit the argument. See Conn. Gen. Stat. Ann. § 52-216b (West 1991); Bartholomew v. Schweizer, 587 A.2d 1014, 1018 (Conn. 1991) (upholding the Connecticut statute); Wilson v. Williams, 933 P.2d 757, 761 (Kan. 1997). The exact number of states that permit the technique does not matter for the purposes of this argument; the key point is that no matter how the states are counted, a substantial split exists on the issue of the validity of the per diem technique.

12 For an extensive list of how state courts view the legitimacy of the per diem technique, see King, supra note 10, at 15–16 nn.65–66.
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Actually employ the per diem argument in a permitting jurisdiction, and suggests that this technique improperly attempts to provide mathematical certainty where none exists. Finally, it analyzes the existing literature in search of the most convincing arguments currently cited for and against the use of the per diem pain and suffering technique. What are the best possible justifications for permitting use of the per diem argument? Does its improper influence on a jury so outweigh any utility it might have that a legislature or, more probably, a court, should follow the Botta rule and forbid its use at trial?

A. Standards of Proof for Pain and Suffering

To receive an award of damages in a personal injury trial, a plaintiff must prove losses to a reasonable degree of certainty. This burden is lower for pain and suffering damages, but is generally not well defined. As the authors of one study note after examining a typical sample of jury instructions, the phrase “pain and suffering” either is not defined at all or is defined in ambiguous terms such as “mental worry, anxiety, distress, and grief.” This lack of a standard is not surprising when one considers that the concepts of “pain” and “suffering” cannot yet be measured to a precise scientific degree. Thus, the current legal model utilizes a jury as a representative of the “social judgment of the community,” and therefore “juries have been allowed to assess pain and suffering damages on the basis of their knowledge of the injury suffered, without any direct evidence of pain and suffering.”

Section 905 of the Restatement (Second) of Torts provides some non-binding guidance for courts:

Compensatory damages that may be awarded without proof of pecuniary loss include compensation (a) for bodily harm, and (b) for emotional distress.

Comment i attempts to provide further clarification for pain and suffering:

15 Restatement (Second) of Torts § 905 (1979).
Measure of recovery. The length of time during which pain or other harm to the feelings has been or probably will be experienced and the intensity of the distress are factors to be considered in assessing the amount of damages. In determining this, all relevant circumstances are considered, including sex, age, condition in life and any other fact indicating the susceptibility of the injured person to this type of harm. As stated in § 910, damages include an amount for the harm suffered to the time of trial and in some cases for that estimated for the future.  

The Restatement, however, gives no real practical guidance for jurors. By speaking in general terms like “all relevant circumstances,” it falters in much the same way as standard pattern jury instructions.

A problem arises, then, when a plaintiff attempts to persuade a jury to ignore the inherent ambiguity in pain and suffering assessment. While jurors recognize the subjective nature of pain and suffering generally, the issue becomes more complicated when an attorney introduces an argument based on the per diem technique. This method imputes a false sense of principled and objective reasoning toward a calculation of damages that is, by its very nature, uncertain and subjective.

The per diem argument works quite simply. An attorney for the plaintiff stands before the jury, usually during closing argument, and gives the jury a formula to use in calculating a pain and suffering damage award. The attorney’s goals are to personalize and monetize the plaintiff’s condition. For future damages, the attorney might tell the jury the plaintiff’s life expectancy. He will then offer

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16 Id. § 905 cmt. i.

17 Jury instructions matter not only for liability but also for remedial relief. Depending on their form, these instructions can greatly influence how a jury compensates a plaintiff. Using experimental data, Professor McCaffery found that a jury instruction employing the ex ante/selling perspective results in awards twice as high as an ex post/making whole instruction. See Edward J. McCaffery et al., Framing the Jury: Cognitive Perspectives on Pain and Suffering Awards, 81 Va. L. Rev. 1341, 1372 (1995). The ex ante perspective asks “how much one would have to be paid to subject herself to the injury in the first place,” while the ex post perspective asks how much it would take to make her whole after an injury has happened. Id. at 1342.

18 This presentation can be done orally or in combination with a visual device like a blackboard. Some even refer to the time-unit method as a “blackboard argument.” See King, supra note 10, at 5.
a dollar unit, often broken down into days. The attorney multiplies this unit first by 365 days and then by the number of years that the plaintiff speculatively will live with the pain and suffering. The jury will be told by the judge that it can accept or disregard this method in deliberations.

The lack of guidance for pain and suffering damages instructions permits plaintiffs’ attorneys wide latitude at trial to influence how a jury perceives a plaintiff’s pain and suffering. The Association of Trial Lawyers of America (“ATLA”) has published articles describing the various methods a plaintiff might use to attain a high pain and suffering award. A central theme running through all of these methods is the concept of empathy—that an attorney can “ask [the jury] to experience vicariously [the] client’s accident and contemplate what the next 20, 30, or 40 years may hold.” The problem with this strategy is that it is impermissible in most jurisdictions for an attorney to explicitly ask jurors to place themselves in the plaintiff’s position because this is a “golden rule” argument generally barred by the courts. “Golden rule” arguments are impermissible because they “attempt[] to arouse the jury’s passion and prejudice.” To circumvent the golden rule prohibition, plaintiffs’ attorneys can employ a variety of more subtle techniques aimed at creating juror empathy.

Possible techniques for a plaintiffs’ attorney to demonstrate pain and suffering include documenting the trauma through medical and hospital records, using a plaintiff’s diaries to refresh his memory prior to taking the stand, soliciting expert testimony that describes physical and mental pain and suffering, using demonstrative aids at trial like “before and after” photographs, and presenting a persuasive closing argument.

Another common method of personalizing the plaintiff’s pain and suffering for the jury that is particularly relevant to the per diem argument is the day-in-the-life film. In such films, the attorney shows the jury a condensed video

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19 See Neil Sugarman & Charlotte Glinka, Explaining Pain: How You Do It, Who Can Help, Trial, Nov. 1994, at 92. In an earlier volume of the same journal, one article instructed plaintiffs’ attorneys that “[y]our goal is to put jurors in the client’s shoes so that they accept the client’s pain as real.” William S. Bailey et al., Communicating About Pain: Helping Jurors Feel a Victim’s Suffering, Trial, June 1992, at 110, 110; see also notes 11 and 23 for additional ATLA articles on point.

20 Schoenbrod et al., supra note 14, at 587.

21 See Sugarman & Glinka, supra note 19, at 92–98.
of the plaintiff’s post-injury daily activities to demonstrate how the defendant’s actions have caused pain and suffering.\textsuperscript{22}

In addition to tips regarding the documentation of pain and suffering, various authors in ATLA’s journal \textit{Trial} give strategies for achieving larger pain and suffering awards.\textsuperscript{23} First, the commentators agree that properly prepared lay witnesses and experts can influence juries in ways beneficial to the plaintiff.\textsuperscript{24} The debate within these articles instead focuses on how much the plaintiff should testify at trial to achieve the goal of a proper balance among plaintiff, non-expert (family and friends), and expert testimony. On the one hand, jurors might view the testifying plaintiff as a self-interested

\textsuperscript{22} A day-in-the-life video functions to “show” the jury pain and suffering more effectively than verbal or even photographic testimony. See id. at 96 (“In cases of severe, traumatic, and permanent injury, there is no more effective glimpse of what the client must endure 24 hours a day, 365 days a year, than the day-in-the-life film.”). As is typical with standards of proof for pain and suffering, no consensus exists regarding how a court should view day-in-the-life films. The debate centers on whether a day-in-the-life-film should be classified as demonstrative or substantive evidence. The majority position views these films as demonstrative, meaning that they possess illustrative properties “not independently probative of some fact at issue at trial.” Jessica M. Silbey, Judges As Film Critics: New Approaches To Filmic Evidence, 37 U. Mich. J.L. Reform 493, 502 (2004). Unsurprisingly, plaintiffs and defendants disagree as to whether such evidence should be permitted at trial. Whereas plaintiff’s counsel frames the day-in-the-life film as a simple but vivid, accurate, and representative account of how the plaintiff must now go through life each day, the defendant sees the film as self-serving, highly selective, and unduly prejudicial evidence that should not be permitted. See id. at 520. A small minority of courts view the day-in-the-life film as substantive evidence, recognizing “how film is meaningful not as revelatory, but as constructed and assertive, and importantly, as evidence that is admissible despite its staged quality.” Id. at 561. When these films are classified as substantive evidence, defendants may use discovery strategies like “subpoenaing outtakes of the films and requesting that defendant’s own film crew be present during the filming, as well as effective cross-examination.” Id. At least one commentator argues that this minority position effectively balances the defendant’s right not to be unduly prejudiced with the plaintiff’s right to have evidence with positive probative value admitted. See id. at 561–62.

\textsuperscript{23} Some of these tips would be humorous if not for the journal’s wide readership. In one article, the author actually asks, “Can the client use analogies to illustrate the experience? Did being trapped in a car feel like being trapped inside a dungeon or a burning building? Did a false arrest and imprisonment bring back memories of the Holocaust?” Ari Kiev, Conveying Psychological Pain and Suffering: Juror Empathy Is Key, Trial, Oct. 1993, at 16, 16. For other examples, see Vesper & Orr, supra note 11, at 64.

\textsuperscript{24} See Bailey et al., supra note 19, at 112; Kiev, supra note 23, at 18.
actor who should be regarded with skepticism. According to one author, the plaintiff’s attorney should avert such skepticism by relying on medical professionals to testify about both physical and psychological effects on the patient in lieu of allowing the patient herself to testify. Treating physicians are in an excellent position to testify, as they “know the patient best and are not retained for purposes of litigation.” On the other hand, the plaintiff is in the best position to testify about the emotional aspects of pain. One author suggests that a client practice emotional testimony in front of a group of people to mitigate potential causes of juror skepticism. A different author notes that “[o]ften, the greater the pain, the stronger the desire to distance oneself from it. Therefore, the jury should be told that if a client minimizes pain, this may indicate that the event was in fact very traumatic.”

Second, authors advise plaintiffs’ attorneys on how to construct a per diem argument that works to maximize the plaintiff’s award. A plaintiff does not need to meet any extra evidentiary requirements when making a per diem argument. Courts that allow the use of per diem arguments do not view them as evidence per se, so no special rules apply. In a recent article in Trial, Thomas Vesper and Richard Orr advise plaintiffs’ attorneys on how to construct a per diem argument that works to maximize the plaintiff’s award. Illustrating the lack of any principled basis for determining a particular monetary figure to use as the per diem amount, Vesper and Orr instruct practitioners to “first decide on a fair and reasonable amount of compensation and work backward.” Their approach recasts large lump-sum awards that might otherwise appear unreasonable into sizes intended to be more palatable to juries.

See Bailey et al., supra note 19, at 112 (“One strategy for coping with juror skepticism is to limit the plaintiff’s testimony to a simple description of events or conditions.”).

Id.

Id.

See Kiev, supra note 23, at 16–18.

See id. at 16.

Id. at 21.

See Vesper & Orr, supra note 11, at 59.

Id. at 61. The authors then clarify: “For example, if your client would need $300,000 to be made whole, then divide that by the time the client has and will continue to suffer, say, 43 years or 15,705.75 days. That works out to about $19 a day, using the common multiplier of 365.25 days.” Id.
Vesper and Orr describe a variety of ways to present the per diem argument in a courtroom. When a client will suffer from chronic pain over a longer period of time, “[s]imply enlarge and reproduce a wall calendar for each of the past and future years of your client’s pain and suffering. Displaying a series of these calendars—each one representing days of torment for your client—can make a huge impression on a jury.” For shorter periods, enlarge a “page-a-day desk calendar.” Alternatively, Vesper and Orr suggest, give jurors a three-ring binder that “include[s] a list of significant dates in the client’s and his or her family’s past and future.” Finally, to impress upon jurors the passage of time, an effective plaintiffs' attorney should couch a per diem argument in a historical perspective:

Sources that can provide historical perspective include encyclopedia yearbooks; “This Date in History” columns in newspapers like the *New York Times*; the archives of *Time*, *Newsweek*, and *Life* magazines; and nostalgic news reports on TV. The Web site www.yesterdayland.com provides many facts and articles about life in days gone by.

This maneuver contains a serious flaw that speaks to a larger problem with the per diem generally: The use of past events to justify an award for future pain and suffering incorrectly comprehends the nature of pain.

A hypothetical illustrates this point. As a result of a surgeon’s negligence, a plaintiff with a life expectancy of thirty more years has chronic pain in her leg. Assume liability, and that the relevant jurisdiction permits the per diem argument. The plaintiff’s attorney uses the Vesper/Orr method and decides on a bottom-line total of $250,000. This figure breaks down to about twenty-three dollars per day for the next thirty years. To emphasize how long thirty years is, counsel for the plaintiff looks *backward* instead of forward when painting a picture for the jury. Using the events of the last thirty years, the plaintiff’s attorney might want to mention that within this time period, this country has seen one bicentennial celebration, six presidents, a hostage crisis, and the Red Sox’s hope

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33 Id. at 62.
34 Id.
of winning the American League Pennant in 1978 destroyed by Bucky Dent. Personalizing time through references to historical events is an attempt to make an award for future time reasonable.

Noticeably absent from the “This Date in History” approach is any reference to medical advances and breakthroughs that have occurred in the past and will, in all likelihood, continue in the future. For example, a plaintiffs’ attorney who successfully used a per diem argument in 1980 for a client with chronic pain would not have had knowledge of any of the advancements in pain management therapy over the last twenty-five years. Similarly, the hypothetical attorney who uses historical events to influence how juries perceive the future today cannot predict the mitigation of the plaintiff’s pain that will likely result from future advancements in medical technology. Further, as Part II argues, the nature of pain itself prevents accurate prediction of the plaintiff’s level of future pain and suffering.

Quantifying pain and suffering cannot be done with any great degree of certainty precisely because abstract concepts like “pain” and “suffering” do not directly correlate with a monetary value. Varying levels for these awards “introduce[] an element of unpredictability into the tort system.” The problems of “standardless” pain and suffering awards include increased costs of litigation through artificially high settlements, damage awards, and deliberation time. Unpredictable awards create perverse incentives for plaintiffs (and, of course, their attorneys) to refuse settling in hopes of receiving a windfall at trial. One recent article even concluded that pain and suffering damages can function as a proxy for puni-

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31 See infra Section II.B.
32 See, e.g., Geistfeld, supra note 2, at 776 (“At present, there is no test to objectively assess the severity of a plaintiff’s pain-and-suffering injury, nor is there a satisfactory method for translating this harm into the appropriate monetary award.”); Wissler et al., supra note 13, at 718 (“Jury instructions explicitly state that general damages are for intangible harms for which there is no definite standard, formula, or method of calculation and for which no evidence or testimony on the monetary value is required.”).
33 Geistfeld, supra note 2, at 777.
35 See King, supra note 3, at 196–97.
tive damages in states that have limited the latter awards by statute.  

B. Traditional Arguments For and Against the Per Diem Technique

The debate over the validity of the per diem technique has remained largely unchanged for well over a generation. Writing nearly four decades ago in 1967, Thomas Cooper noted that “opposing forces have mobilized along predictable lines, with claimants’ attorneys praising the argument, and defense counsel condemning its use.” Cooper laid out arguments for and against the per diem argument that, with case updates, could probably be republished today. Professor Joseph King, a leading scholar in the field, recently published an article that revised and expanded on some of the ideas in Cooper’s work. The central concepts, however, remain quite similar, and do not incorporate advances in medical science over the last forty years that have changed our understanding of the nature of pain and suffering.

Though quantifying pain and suffering appears inherently impossible, proponents of the per diem technique cite a number of justifications supporting its use at trial. These justifications include opposing counsels’ opportunity to counterargue against the use of the per diem technique or the amount chosen, the non-binding nature of per diem arguments, and the fact that per diem arguments are often coupled with cautionary instructions from the judge.

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41 Cooper, supra note 9, at 393.
42 See King, supra note 10. However, where Cooper does not choose between the pro and con arguments, Professor King’s article argues the case against the per diem method. Further, Professor King applies the psychological concept of “anchoring” as a substantive criticism of the per diem method. Providing the jury with a baseline figure in the form of a per diem anchors the dollar value in the jurors’ thought processes. See id. at 33–49.
43 Other arguments in favor of the technique exist. See id. at 18–21. Professor King also lists the following arguments: the per diem technique provides the jury with a guideline; attorneys are generally given wide latitude in closing arguments; the defendant’s tort caused the situation; the per diem determination is no more speculative than other determinations that the jury must make; the time-unit technique is a rational method of arriving at a figure; and per diem calculations are inferential rather
These justifications all fail not because the per diem technique is arbitrary, but because the method’s legitimacy depends on a jury believing that the number it arrives at based on this method is not arbitrary. After all, when a verdict comes in the form of a lump-sum award not formulated with the per diem method, it also contains an element of randomness. In fact, allowing a jury to arrive at a lump-sum award for pain and suffering, regardless of the method used, has its critics. One overlooked aspect of the lump sum, however, is its transparency. The jury in this situation recognizes the imprecise nature of pain and suffering and awards a necessarily arbitrary figure. A plaintiffs’ attorney who pitches a per diem argument to a jury essentially tries to do an end-run around this arbitrariness by presenting a figure as a precise and mathematically certain value for the plaintiff’s pain. The fact that juries tend to grant legitimacy to the per diem suggestion by using the figure as an “anchor” in their deliberations over the damage award can be problematic.\footnote{See infra notes 53–56 and accompanying text.}

This argument can be illustrated by examining two representative justifications in favor of the per diem technique. First, plaintiffs’ lawyers have a “built-in restraint” that prevents them from over-inflating award requests: the risk the jury might view the plaintiff as overly self-serving.\footnote{King, supra note 10, at 22.} This justification misunderstands the fundamental purpose of the per diem argument. Quantifying an award by breaking it down into small component units functions to conceal a massive award by contextualizing the resulting high figure. A per diem argument therefore may make the plaintiff appear less self-serving. Second, per diem proponents claim that “it provides an average for the fluctuating experience of pain and suffering.”\footnote{Id. at 24–25.} This argument recognizes that any “unit of pain” figure must at some level function arbitrarily because levels of both pain and suffering fluctuate during the injured individual’s life. Yet, as current pain theory illustrates, it is impossible to calculate an average that accounts for unknown (and unknowable) future pain. Put simply, an average for chronic pain cannot be predicted, as no law-
yer can peer into a crystal ball to foresee future advances in medicine and pain management therapy that will affect a plaintiff’s future pain.

While arguments in favor of the per diem method fail because of the inherent indeterminacy of future pain, jurisdictions that forbid the per diem argument also sometimes base their decisions on unpersuasive reasoning and an incomplete analysis. Courts that reject the per diem argument implicitly or explicitly rely on the reasoning of Botta v. Brunner, a 1958 case in which the Supreme Court of New Jersey held a per diem argument improper for use at trial.47

As a result of a traffic accident, Ms. Botta experienced pain and suffering, although experts disagreed as to the gravity of her condition.48 After hearing the per diem suggestion, the jury awarded the plaintiff $5,500 for pain and suffering.49 The Supreme Court of New Jersey, however, disallowed the plaintiff’s use of the technique for a variety of reasons,50 all of which rejected the notion that pain and suffering could be quantified under uncertain and unpredictable circumstances. The court stated that “[i]ndividuals differ greatly in susceptibility to pain and in capacity to withstand it. And the impossibility of recognizing or of isolating fixed levels or plateaus of suffering must be conceded. . . . Any effort [to attach a price tag to each level/plateau] must become lost in emotion, fancy, and speculation.”51 While the Botta court’s point seems intuitive, medical science and psychological theory now provide us with verification for the court’s pronouncements.

For the most part, commentators have not substantively added to the Botta analysis in the past forty years. One exception, however, comes from Professor Joseph King. Adding to the common

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47 138 A.2d 713 (N.J. 1958). Botta has been modified in New Jersey so that time-unit arguments are permissible, but assigning a dollar value to the unit is not. See Brodsky v. Grinnell Haulers, Inc., 853 A.2d 940, 952 n.4 (N.J. 2004).
48 The plaintiff’s own expert conceded on cross-examination that factors like “her previous desertion by her husband” and “enforced care” of her two children with polio may have been contributing factors to her injury. See Botta v. Brunner, 126 A.2d 32, 36–37 (N.J. Super. Ct. App. Div. 1956). The expert also stated that “she had a peculiarly slow gait but that it got worse when she knew [her husband] was observing her.” Id. at 37.
49 See id.
50 See Botta, 138 A.2d at 720–25.
51 Id. at 719.
criticisms of the per diem technique, Professor King demonstrates that the cognitive mechanism of “anchoring” should preclude any per diem argument from going to a jury. Anchoring is a psychological heuristic “based on the tendency of people to ‘make estimates with an initial value already in their minds that they adjust to give a final answer.’” In the context of per diems, a plaintiffs’ attorney suggests an essentially arbitrary number which then acts as an anchor for a jury to deliberate upon. Anchoring through per diem arguments works to provide the jury with a baseline for the “inherently amorphous nature of damages for pain and suffering,” as well as implying to the jury that the attorney proffering the argument maintains a level of expertise in the ability to quantify. Even though a defense attorney can respond to the proposed per diem amount with a lower dollar-per-unit figure, in most jurisdictions the plaintiff’s attorney gives the first and last arguments to the jury—giving the plaintiff the so-called primacy and recency effects so that “the plaintiff . . . gets the first and last bite out of the per diem apple.”

While more empirical research is needed to confirm King’s anchoring hypothesis, the theory is that suggestible jurors internalize per diem figures suggested by plaintiffs’ lawyers. The anchoring effect provides a jury-centric psychological reason for invalidating use of the per diem method and substantially strengthens support for the Botta rule. Even with the addition of the anchoring argument, however, the case against the per diem is still not as strong as it might be because it has not incorporated medical and psychological advances in pain theory. Part II seeks to supplement the anchoring contribution by providing plaintiff-centric medical and psychological reasons why future pain and suffering should not be measured at a constant rate.

52 Common criticisms of the technique note that per diem arguments mislead the jury, can be readily manipulated by plaintiffs’ attorneys, invade the province of the jury, have no basis in evidence, disregard the nature of pain, falsely connect pain with money, lead to excessive damage awards, exploit jury sympathy, are necessarily arbitrary, and improperly compel a defendant’s attorney to respond in kind. See King, supra note 10, at 27–33.
53 Id. at 35.
54 Id. at 38.
55 Id. at 40–42.
II. PAIN AND SUFFERING

This Part focuses on pain as a general topic and then analyzes how future pain and suffering can be mitigated by pain management therapy and an individual’s ability to cope. Unfortunately, the field of pain raises far more questions than it answers, which directly contributes to the difficulty in translating this nebulous concept into a monetary award. However, since the end of World War II and especially in the past thirty years, the field has seen great advancements in both analysis and treatment of pain. The recognition of the multi- and interdisciplinary nature of pain leads to ever-increasing understanding and treatment of suffering individuals.

These advances in the science of pain have not crossed over into the per diem debate. Jurisdictions that permit the per diem rely on anachronistic premises no longer considered valid in medical and psychological fields. By incorporating these advances into the legal arena, this Note intends to modernize the critique of the per diem pain and suffering method.

A. Pain, Generally

"Why does one patient develop chronic pain and face disability, while another—with seemingly the same injuries, extent of tissue damage, and quality of medical care—recovers and returns to normal activity following a brief convalescence?"

This Section seeks to in part answer why pain cannot be quantitatively measured to any reasonably certain degree—an inquiry that would have been impossible to undertake when the per diem argument initially took hold two generations ago. Advances in the science of pain now allow such a discussion.

The International Association for the Study of Pain ("IASP") has been a leader in the field of pain and pain management for a generation. The IASP defines itself as an international, multidisciplinary, “non-profit professional organization dedicated to further-

\[^{56}\text{For a concise historical look at pain perception in ancient civilizations, classical Greece and Rome, the early modern era, and the age of industry, see Anastasia Kucharski & Edwin M. Todd, Pain: Historical Perspectives, in Principles and Practice of Pain Medicine 1 (Carol A. Warfield & Zahid H. Bajwa eds., 2d ed. 2004).}

\[^{57}\text{R. Joshua Wootton, Psychosocial Assessment of Chronic Pain, in Principles and Practice of Pain Medicine, supra note 56, at 148, 148.}\]
ing research on pain and improving the care of patients with pain.”

According to its website, the IASP has more than 6500 individual members from over 100 countries. Since 1975, this Association has published the respected journal *Pain*. In 1979, the IASP’s Subcommittee on Taxonomy published a definition of pain still widely cited by academics in the current literature. Pain is “[a]n unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.” Key to understanding this definition is its combination of physical and emotional characteristics, so that pain “is always subjective.”

This subjective nature of pain does not match up well with a tort system that demands compensation in the form of an objective monetary figure. Many plaintiffs certainly experience pain, so a tort regime that dismissed the possibility of pain and suffering damages would undercompensate some plaintiffs. An uneasy but necessary tension exists, then, between pain and suffering and a plaintiff’s right to compensation. This tension, however, is magnified to an unacceptable level in the per diem setting. By ascribing false mathematical certainty to an award, the per diem suggestion (purposely) fails to recognize the speculative nature of any pain suffered by a plaintiff. Pain and suffering awards not grounded in the specious per diem method at least recognize and make jurors aware of the subjective nature of the awards. The per diem technique is an inappropriate method of calculating damages because it “tricks” the jury into assigning a constant, objective value to a plaintiff’s pain rather than crafting lump-sum awards that recognize the fluid and subjective nature of pain perception and the power patients have to self-manage their pain experience.

How “objective” is pain? The premise of this Note would be fatally damaged if current and future pain could be measured to a

59 Id.
62 Id. (emphasis added).
reasonably certain degree. In the future, the implications of this Note will hopefully be rendered irrelevant by technological, medical, and psychological advances that can measure and quantify pain and predict a patient’s future pain levels. Currently, however, scientists do not even agree on whether pain can be measured to a general level of accuracy. Imagine, then, the impossibility of assigning a constant monetary value to the specific amount of pain a victim will experience today, tomorrow, and possibly far into the future. Various methods exist to measure pain in a non-arbitrary, but still relative, manner. None of these methods works as an accurate predictor of future pain. Parsimonious rating scales ask individuals to put a numerical figure on their pain, often on a scale from one to ten. A different method, the McGill Pain Questionnaire (“MPQ”) seeks to measure and categorize an individual’s pain by asking the individual to assign a number from zero to five to a series of pain adjectives (for example, “flickering,” “pinching,” “spreading,” etc.). The words are “categorized into three major classes and 16 subclasses.” A shorter version of the MPQ can be used when a physician wants information more quickly. The multidimensional aspect of the MPQ differentiates this method from the one-dimensional pain rating scale. While the MPQ proves useful in a clinical setting as a rough approximation for how much pain an individual feels, this test is still in no sense objective. At present, an army of factors exists that undercut any reasonable attempt at quantification. These factors are multiplied when a jury attempts to measure not only present but also future pain and suffering.

First, the concept of pain contains no universally accepted system of descriptors or classification. Even the IASP definition builds uncertainty into its description, using words like “unpleasant,” “emotional,” and “potential.” Pain can be either acute or

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63 In legal literature, the non-quantitative nature of pain is taken for granted. Judge Niemeyer, for example, notes that “pain is not susceptible to quantitative measurement.” See Niemeyer, supra note 1, at 1403.


65 Id. at 293.

66 Id. at 298–300.

67 See id. at 294–96.

68 See Int’l Ass’n for the Study of Pain, Pain Terms, supra note 61, at 250.
chronic, with no firm dividing line to separate the two. Roughly, acute pain arises from soft tissue injury or inflammation, whereas chronic pain “persists beyond the usual course of an acute injury or disease, or recurs every few months or years.” Chronic pain lasts for longer than six months. For obvious reasons, awards for future pain and suffering focus on chronic pain, although damages based on presumed pain resulting from probable future surgeries would apparently fall under the acute category.

In addition to this initial distinction between acute and chronic varieties, pain can further be broken down into any number of subsets, although professionals differ as to the proper categorization. Professor David Boyd emphasizes this lack of a unified taxonomy and classification of pain. He advocates adopting the IASP five-axis pain taxonomy, which itself derives substantially from the DSM-IV. These axes look at region, bodily system, temporal characteristics (how long the pain lasts), the patient’s statement of both intensity and time since onset, and etiology (the cause or origin of the pain). Professor Edward Shipton uses a more physiologically based scheme that emphasizes the relationship between the central nervous system and an individual’s perception of pain.

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For more information on the subtle distinctions between acute and chronic pain, see Shipton, supra note 60, at 2–5.

Id. at 3. Shipton succinctly distinguishes acute from chronic pain in this manner: “Chronic pain differs from acute pain in that it serves no useful function, causes suffering, limits activities of daily living and increases health care payments, disability and litigation fees.” Id. at 5.


Id.

Id. at 40–43.

Professor Shipton separates the clinical study of pain into four components: nociception, pain, suffering, and pain behavior. Shipton, supra note 60, at 1. He then separates pain into three different types—nociceptive, neuropathic, and psychogenic. See id. at 5–14. Professor Boyd also notes that chronic pain can be classified as either neuropathic or non-neuropathic. See Boyd, supra note 71, at 40. The IASP defines neuropathic pain as “[p]ain initiated or caused by a primary lesion or dysfunction in the nervous system.” Int’l Ass’n for the Study of Pain, IASP Pain Terminology, http://www.iasp-pain.org/terms-p.html (last visited Mar. 9, 2006). In contradistinction to non-neuropathic pain, neuropathic pain results from “malfuction in the peripheral or central nervous system,” and occurs far less frequently in pain clinic patients than its non-neuropathic counterpart. Shipton, supra note 60, at 7.
Even more classification schemes exist. The point of this discussion is not to confuse, but rather to show the complexities and lack of agreement over basic taxonomic and classificatory terms even within the academic community.

Second, and apart from these theoretical differences, the actual experience of pain differs among individuals. Two plaintiffs who suffer the same injury in the same type of car accident probably do not experience identical suffering. Likewise, two pain and suffering claims arising out of the same type of medical malpractice might be awarded similarly by juries even though the different plaintiffs might not suffer equally. Further, different practitioners may choose very dissimilar treatment routes for patients in similar situations. Common treatments for pain range from medically based (for example, anti-inflammatories, treatments targeting the central nervous system, antidepressants, and antiepileptic drugs), to surgical (for example, surgery directed at peripheral nerves, such as operations on the spinal cord or brain), to alternative methods (for example, acupuncture, yoga, exercise, relaxation, deep massage, and cold or heat stimulation). This list is of course partial.

Even assuming that plaintiffs with similar injuries receive the exact same treatment throughout the course of their lives, pain reception and response cannot be presumed to operate similarly. Prior to World War II, researchers saw a direct link between an organic pathology and the resulting pain. Aptly named the “biomedical model of pain,” this theory concentrated solely on the link between biological malady and pain, excluding the possibility of a relationship between pain and psychological or social factors. In so doing, it claimed a greater degree of objectivity than it actually possessed. As Professors Turk and Monarch note, “[t]here is general agreement . . . that the presence and extent of physical pathology are not

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75 See Jyotsna Nagda & Zahid H. Bajwa, Definitions and Classifications of Pain, in Principles and Practice of Pain Medicine, supra note 56, at 51, 52–54.
76 In a similar vein, the late Professor Wall states: “There is no such creature as a standard patient, even after identical operations by the same surgical teams. Fortunately, there have been great advances in recent years such that patients can expect and even demand comfort.” Patrick Wall, Pain: The Science of Suffering 76 (2000).
77 See id. at 107–24.
sufficient to account for all reported physical symptoms. Decidedly
diverse responses to objectively similar physical perturbations and
identical treatments have been noted clinically and have been
documented in many empirical investigations.”

Modern theories of pain incorporate psychological elements
missing from the prior dominant biomedical theory, forming what
can be called a biopsychosocial perspective. Various tests now at-
ttempt to recognize the role of cognitive factors in measuring a pa-
tient’s pain, although personality tests and questionnaires rely on
self-reporting by the patient. Setting aside for a moment the diffi-
culty in measuring responses to these tests in a scientific manner,
the biopsychosocial approach and its variants emphasize the key
point of the IASP definition—pain is subjective.

The malleable nature of pain exists not only between individu-
als, but also within a particular person. Professor Patrick Wall,
who pioneered much of modern pain theory, noted that tribal
youths and elite commandos who silently endure painful initiation
ceremonies retain none of their tolerance for pain later in life.
In a different situation that also illustrates the psychological elements
of pain perception, a Dutch woman complained of a burning pain

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79 Id. at 4.
80 See Angela J. Koestler & Daniel M. Doleys, The Psychology of Pain, in Practical
Pain Management, supra note 71, at 28.
81 See Donald W. Hinnant, Psychological Evaluation and Assessment of Pain, in
82 For a detailed description of the biopsychosocial approach, see Turk & Monarch,
supra note 78, at 4–22. The Gate Control Theory (“GCT”) of Pain, first proposed by
Melzack and Wall (1965) and Melzack and Casey (1968), introduced psychological
factors into pain theory previously dominated by physiology. See Ronald Melzack &
Kenneth L. Casey, Sensory, Motivational and Central Control Determinants of Pain:
A New Conceptual Model, in The Skin Senses 423, 423–25 (Dan Kenshalo ed., 1968);
Ronald Melzack & Patrick D. Wall, Pain Mechanisms: A New Theory, 150 Science
971, 974–77 (1965). Modern theories of pain, sometimes critical of the GCT, still must
respond to the insights of the theory and nonetheless incorporate psychological fac-
tors. Melzack even attempted to update the GCT with what he labeled as the “neu-
romatrix theory.” See Turk & Monarch, supra note 78, at 5–6.
83 See, e.g., Jeremy Goodwin & Zahid H. Bajwa, Understanding the Patient with
Chronic Pain, in Principles and Practice of Pain Medicine, supra note 56, at 55, 56
(“Pain thresholds may vary, not only between people, but also within the individual
person over time according to mood, previous experience, and expectations.”).
84 Among anecdotal examples taken from a variety of cultures, Professor Wall also
noted the once-stoic Marine who many years later responded to pain much like the
other geriatrics on his ward. See Wall, supra note 76, at 61.
in her wedding ring finger despite having had her arm sheared off in a car accident. Doctors learned that on the evening of her amputation, the woman’s husband had left her. The pain in the phantom ring finger went away only after counseling for both her injury and the loss of her husband.85

Compare these theoretical and practical nuances with how the legal system analyzes pain and suffering. Because of the link between physiology and cognitive perception, even the concept of “pain” and “suffering” as two separate categories is outdated. Still, the legal system’s oversimplification of the concept of pain and suffering cannot be entirely avoided. Tort victims experience pain and suffering and deserve to be compensated. The typically vague instructions given to juries in such cases appropriately indicate that noneconomic damages are inherently subjective, and are recognized by the jury as such. The per diem method, by contrast, improperly attempts to recast these damages in an objective light. This method fails to recognize that the subjective experience of pain differs within and among individuals. Per diem arguments project constant units of perceived pain into the future, which cannot be done with any semblance of accuracy, to arrive at a damage award. The jury, however, is misled into believing that by calculating damages with the per diem method it is engaging in a principled and objective determination of the amount of the plaintiff’s actual suffering. The per diem method’s purpose is, in short, to deceive the jury. A jury recognizes the lump sum as an imprecise representation of the plaintiff’s pain and suffering. In the per diem context, however, a plaintiff’s attorney aims to re-craft this necessary imprecision into a mathematically certain figure. This certainty cannot be reconciled with our new knowledge of the fluid and subjective nature of pain.

B. Pain Management Therapy and the Adoption of Cognitive-Behavioral Treatment

When plaintiffs’ counsel makes a per diem argument, one element always missing from the discussion is the strong likelihood that pain management therapy will mitigate chronic pain over the course of the plaintiff’s life. A wide variety of pain management

85 See id. at 105.
therapies are available depending on the particular injury and patient, and chronic pain as a field has seen major advances in the past thirty years. These improvements in pain treatment and amelioration have unfortunately not informed the largely stilted academic discussion of pain and suffering generally and the per diem argument specifically. With the exception of Professor King’s discussion of anchoring, little progress has been made with respect to the time-unit argument in the past generation. The purpose of this Section is to incorporate the new pain management approach into the per diem discussion to illustrate why any time-unit argument operates on false assumptions.

A major innovation (and some would say the major innovation) in pain management in the past generation has been the ascendance of cognitive-behavioral treatments (“CBT”) for chronic pain. The CBT model acts to supplement—but certainly not to replace—more standard health care methods. The CBT model emerged after the rejection of the biomedical model of treating pain, in which pain management consisted largely of an attempt to localize and remove the relevant pathology. This biomedical

86 The list of treatments for specific pain syndromes is potentially endless. The Pain Clinic Manual provides an illustrative list spanning twelve chapters. See generally The Pain Clinic Manual, supra note 60, at vi–vii.

87 Two experts label the ascendance of the gate-control theory as nothing less than “a Kuhnian shift of paradigm” that “figuratively opened the door for research on the role of psychologic variables moderating and mediating pain.” See Johan W.S. Vlaeyen & Stephen Morley, Cognitive-Behavioral Treatments for Chronic Pain: What Works for Whom?, 21 Clinical J. Pain 1, 1 (2005).

88 See, e.g., Dennis C. Turk, A Cognitive-Behavioral Perspective on Treatment of Chronic Pain Patients, in Psychological Approaches to Pain Management, supra note 78, at 138, 139 (“The C-B [cognitive-behavioral] model has become the most commonly accepted conceptualization of pain... as it appears to have heuristic value for explaining the experience of and response to chronic and acute recurrent pain.” (citations omitted)).

89 To illustrate the recent rapid rise in the field, one book reviewer noted that the second edition of a leading work on pain management from a CBT perspective expanded from six chapters on specific syndromes and populations in the first edition to fifteen chapters in the second edition only six years later. See Raymond C. Tait, Mind Matters: Psychological Interventions for Chronic Pain, 21 Clinical J. Pain 106, 106 (2005) (reviewing Psychological Approaches to Pain Management, supra note 78).

90 As one of the founders of the CBT model states, “[t]his approach is not a replacement for more traditional health care but can be used to supplement interventions such as surgery and as part of a comprehensive approach to rehabilitation.” Turk, supra note 88, at 139.

91 Vlaeyen & Morley, supra note 87, at 1.
model could not account for the indirect relationship between pathology and pain level, and researchers sought a biopsychosocial approach to explain that relationship. The CBT approach takes biomedical factors into account, but recognizes that these factors alone do not determine the level and perception of pain an individual experiences. Particularly important in the per diem context, “[b]iomedical factors that may have initiated the original report of pain play less and less of a role in disability over time.” 92 Thus, the CBT approach recognizes that unpredictable non-physiological factors influence how much pain an individual perceives, especially with regard to future pain. 93 The CBT model’s proponents, however, do not pretend that it is a panacea for chronic pain. Individuals can suffer, often terribly, from chronic pain, and noneconomic damages serve the valuable purpose of compensating the plaintiff for actual loss. 94

The widespread use of the CBT model and its derivatives in interdisciplinary pain clinics represents an achievement of the “cognitive revolution” in the behavioral sciences. 95 The number of these centers in the United States has exploded in the past generation. 96 The immediate benefit to the patient of a multi- or interdisciplinary pain center is the centralization of a treatment program, as opposed to ad hoc treatments as the individual moves from one

92 Turk, supra note 88, at 141.
93 See id. (“[C]ognitive factors may not only affect the patient’s behavior and indirectly his or her pain but may actually have a direct effect of [sic] physiological factors believed to be associated with the experience of pain.” (citation omitted)).
94 See generally Marc A. Franklin & Robert L. Rabin, Tort Law and Alternatives: Cases and Materials 690–91 (7th ed. 2001) (noting that pain and suffering damages provide plaintiffs with monetary compensation and also serve to deter potential tortfeasors).
95 Vlaeyen & Morley, supra note 87, at 1–2.
96 Gerald Aronoff estimates the number of pain treatment programs in the United States at anywhere between 1500 and 2000. At the end of the 1970s, Dr. Aronoff chaired an American Pain Society committee that sought to “investigate the problem and develop guidelines for classifying pain treatment facilities.” See Gerald M. Aronoff, The Role of Pain Clinics, in Principles and Practice of Pain Medicine, supra note 56, at 813, 814. Notably, “pain center” can be further broken down. The second edition of the Pain Clinic Manual notes at least three possible classifications. In addition to the multidisciplinary pain clinic, the syndrome-oriented clinic “limit[s] the practice . . . to management of a specific pain problem,” while the modality-oriented clinic “offer[s] a single type of treatment or a limited range of treatment options.” Id. at 1; see also William L. Johnson et al., Pain Clinic Organization and Staffing, in The Pain Clinic Manual, supra note 60, at 3, 3–5.
Per Diem Pain and Suffering Damages

doctor to another, each with his own idea of what a proper treatment should be.\textsuperscript{97} Aside from the standard medical services, the typical interdisciplinary pain clinic integrates the CBT method with physical therapy, relaxation training, biofeedback, social services (including counseling), and even vocational and educational training.\textsuperscript{98}

Despite the widespread availability of such treatment, the per diem argument does not in any way factor in the efficacy of the CBT approach for mitigating and managing a plaintiff’s chronic pain. The per diem method attempts to preclude a jury from considering the ways in which a plaintiff’s perceptions of pain are inherently subjective and can change considerably as time passes. Specifically, the per diem method does not account for advances in the science of pain as elucidated by the CBT perspective. Three of these factors will be discussed here.

1. Cognitive Factors Influence How an Individual Perceives and Responds to Pain

A per diem argument by definition does not take into account the tremendous variability of pain experiences among individuals and over time resulting from cognitive and other factors. Cognitive factors affect pain perception.\textsuperscript{99} Pain perception, in turn, influences pain tolerance.\textsuperscript{100} A patient who enters treatment with a defeatist attitude can expect to feel more pain than a similarly situated individual with a more positive outlook—strong empirical evidence links a patient’s expectations with results.\textsuperscript{101} Theorists refer to

\textsuperscript{97} See Aronoff, supra note 96, at 817 (“A major characteristic [of the Multidisciplinary Pain Centers (“MPC”)] is the integration and interdependency of their components. This interdependency means that, despite the diversity of disciplines represented in a MPC, patients are given a message about the nature of their problem and the proposed treatment that is consistent with the philosophy and assumptions of the center as a whole.”).

\textsuperscript{98} See id. at 819.

\textsuperscript{99} For example, psychological, socio-cultural, and behavioral factors such as operant, respondent, and social learning mechanisms focus on the different ways in which a patient can learn how certain actions can produce responses by others that then exacerbate or mitigate the individual’s perception of pain. See Turk & Monarch, supra note 78, at 9–23.

\textsuperscript{100} Herta Flor & Dennis C. Turk, Cognitive and learning aspects, in Wall and Melzack’s Textbook of Pain, supra note 64, at 241, 242.

\textsuperscript{101} See Vlaeyen & Morley, supra note 87, at 4–5 (summarizing the research).
“catastrophizing” in the pain context as “negative self-statements and overly negative thoughts and ideas about the present and/or the future.” 102 A patient who does not catastrophize has a higher pain threshold than the catastrophizer, 103 and individuals who catastrophize tend to experience higher pain intensity than their non-catastrophizing counterparts. 104 When individuals with chronic pain accept the long-term nature of their conditions, they “are more likely to learn how to increase their functional abilities and quality of life despite pain.” 105 Maladaptive responses by the chronic pain patient can lead to learned behavior that sustains or exacerbates the pain. Settling into a sedentary lifestyle, for example, can “impede alleviation of pain, successful rehabilitation, reduction of disability, and improvement in adjustment.” 106 Importantly, the CBT perspective highlights those cognitive factors that can be controlled by the patient and attempts to modify the patient’s behavior through education.

2. Educating a Patient About Biopsychosocial Factors Can Influence Pain Perception

The per diem method does not acknowledge the role of education in alleviating pain. The CBT model recognizes that an individual in chronic pain often improperly assumes that the pain derives solely from one or more underlying pathologies. A primary goal of cognitive-behavioral education is to make the patient aware of the many controllable cognitive variables that factor into the fluctuating nature of chronic pain. Because much of pain perception involves learned behavior, chronic pain can be lessened, sustained, or made worse depending on how an individual reacts to the affliction. The CBT model labels the education approach as “reconceptualization,” which emphasizes the subjectivity of the pain experience. 107 A variety of clinical studies have demonstrated the efficacy

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102 See, e.g., Flor & Turk, supra note 100, at 244–45.
103 See Turk, supra note 88, at 142.
104 See Flor & Turk, supra note 100, at 244–45 (citing research).
105 Vlaeyen & Morley, supra note 87, at 5.
106 See Turk, supra note 88, at 141.
of the cognitive-behavioral approach to pain treatment. Educating a patient about pain treatments can work to increase an individual’s sense of control over the pain situation, which can then actually decrease the amount of pain the patient perceives.

3. Patients Can Learn to Cope with Chronic Pain and Develop Feelings of Self-efficacy

Coping and self-efficacy play a paramount role in the CBT model. One scholar even labels coping as the first objective of pain management. The basic premise of this Section is that the ordinary individual suffering from chronic pain has the ability, over time, to learn coping behaviors that allow for the management and alleviation of pain. Although litigation can take years, if the injured plaintiff has a long life expectancy, the jury sees the individual relatively early in the process of living with chronic pain. When awarding noneconomic damages on a per diem basis, the jury likely will not discount for the plaintiff’s eventual ability to cope with the injury. Further, a defense attorney who chooses to make this argument in front of a jury runs the risk of appearing callous.

The concept of self-efficacy cannot be separated from coping in the CBT model. Both highlight the role of self-regulation. “Perceived self-efficacy refers to beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments.” Perceived self-efficacy influences how a person copes with pain. Cognitive coping can be broken down into two categories: active and passive. Active strategies are associated with adaptive functioning, whereas passive coping can lead to heightened perception of pain, catastrophizing, and possibly depression. Like other cognitive-behavioral treatments, coping skills can be learned. Studies have demonstrated the effectiveness of group therapy in

108 See id. at 347.
109 See Flor & Turk, supra note 100, at 255.
112 See Flor & Turk, supra note 100, at 244.
113 Turk & Monarch, supra note 78, at 17–18; see also Wootton, supra note 57, at 153 (“Unrealistic or negative thinking can lead to intensified pain perception, increased distress, and a greater sense of suffering and disability.”). A variety of tests exist to rate type and level of coping in a patient. Id. at 153–54.
lowering pain levels and increasing reintegration into pre-injury activities when the therapy focuses on improvement of positive coping techniques.\textsuperscript{114}

Self-efficacy emphasizes human agency.\textsuperscript{115} Since the late 1970s, Professor Albert Bandura of Stanford University has been championing self-efficacy’s virtues and its applicability to a wide variety of fields.\textsuperscript{116} While not initially focused on pain, the concept of self-efficacy has been applied by Bandura and others\textsuperscript{117} to how people perceive and respond to pain sensations. Studies have shown that individuals with high self-efficacy—which can be learned—are better able to cope, have higher pain thresholds and tolerance, increased physical activity, and greater psychological health.\textsuperscript{118}

This Section has so far focused on how an individual can play a primary role in lessening chronic pain. This emphasis on self-management belies the now-obsolete biomedical model of pain in which an underlying pathology directly produces $X$ amount of pain. The idea of self-management of chronic pain stresses how a patient can play an active role in his individual cognitive therapy to increase the likelihood of pain mitigation.\textsuperscript{119} Human beings are resilient creatures who can learn to live with chronic pain, contradicting the per diem method’s assumption that damages should be calculated using a \textit{constant} dollar figure over time. Justifications for the per diem technique do not take into account any of these insights from innovations in the field of pain over the past genera-

\textsuperscript{114}See Francis J. Keefe et al., Group Therapy for Patients with Chronic Pain, \textit{in} Psychological Approaches to Pain Management, supra note 78, at 234, 234–36.

\textsuperscript{115}See Bandura, supra note 111, at 3.


\textsuperscript{117}See, e.g., Flor & Turk, supra note 100, at 244; Turk & Monarch, supra note 78, at 15–16.

\textsuperscript{118}See Bandura, supra note 111, at 268–69 (summarizing studies). Professor Bandura gives a succinct and clear statement about the role that patient perceptions of self-efficacy play in managing pain: “Arbitrarily instilled beliefs of inefficacy discourage pain coping behavior even when the opportunity to exercise personal control exists. In contrast, instilled perceived efficacy largely overrides ostensible external constraints on the exercise of personal control over pain.” Id. at 268.

\textsuperscript{119}The transtheoretical model of self-management, for example, looks at different stages patients progress through in taking an active role in their pain reduction. The five stages (precontemplation, contemplation, preparation, action, and maintenance) map, in increasing order of self-management, an individual’s ability to control and minimize sources of pain. See Wootton, supra note 57, at 150–51.
tion. To monetize pain and suffering in accordance with an arbitrary time-unit speciously representing an objective figure belies how individuals cope with pain and suffering through concepts like self-efficacy.

A possible response to this assertion is that a plaintiff should not be punished monetarily for learning to cope with pain caused by a defendant. There are at least two responses to this criticism. First, as a definitional matter, “punish” is the incorrect word. The CBT approach illustrates that as a factual matter it is likely that a person in chronic pain will not suffer at a constant rate. To allow recovery based on constancy without acknowledging the strong likelihood that the plaintiff’s perception of pain changes over time belies the fundamental purposes of compensation in tort. A constant rate for fluctuating pain produces a possible windfall for the plaintiff. Second, this rejoinder would have greater merit if coping were the only argument against the per diem. When combined with the subjective nature of pain and the likelihood of future pain management advancements, however, the case against the per diem substantially outweighs any merit in the per diem method.

C. Other Pain Management Techniques

Because of the multidisciplinary and supplementary approach of the CBT model, practitioners frequently utilize other pain management methods to assuage and manage pain. Some of the more common techniques will be discussed here.

The first set of techniques involve framing chronic pain “as a set of sequential problems, rather than simply as the presence of pain being a single overwhelming problem.” 120 This method has been shown to be an effective treatment of chronic pain. Like techniques in the CBT approach, the problem-solving method emphasizes the patient’s ability to perceive that he has control over the pain situation.121

The second set of techniques used to alleviate or control pain, relaxation therapy and biofeedback, are psychophysiological in nature. Relaxation and biofeedback both contribute to the CBT model’s goal of maximizing an individual’s self-management of

120 Turk & Flor, supra note 107, at 343.
121 Id.
pain. Practicing relaxation can teach a patient how to develop better coping mechanisms for dealing with chronic pain.\textsuperscript{122} The multitude of relaxation techniques available make this method attractive to pain specialists, as a patient can try a variety of techniques to see which one works most effectively.\textsuperscript{123} Biofeedback “is a procedure in which the therapist monitors through a machine the patient’s bodily responses . . . and then ‘feeds back’ this information to the patient, generally through either an auditory modality . . . or a visual modality.”\textsuperscript{124} The patient then attempts to learn to control bodily responses to the extent possible. This method, in conjunction with other treatments, has proven moderately effective for common chronic pain conditions like tension-type headaches, migraine headaches, and chronic lower back pain.\textsuperscript{125} Chronic headaches and back pain, common after a personal injury like a car accident, can be effectively treated in many cases with psycho-physiological techniques.\textsuperscript{126} One study found that these treatments for chronic tension headaches are “as effective as pharmacological interventions.”\textsuperscript{127} When coupled with a CBT approach, relaxation and biofeedback combine to reduce stress in patients with lower back pain—which then makes the patient more amenable to other forms of treatment.\textsuperscript{128}

More traditional medical treatments also play a vital role in recovery. Opioid derivatives and aspirin make up the vast majority of analgesic medicines used in pharmacological treatment.\textsuperscript{129} Opioids are especially effective at reducing acute and chronic pain, and the

\textsuperscript{122} See id.
\textsuperscript{123} See id.
\textsuperscript{124} John G. Arena & Edward B. Blanchard, Biofeedback Training for Chronic Pain Disorders: A Primer, in Psychological Approaches to Pain Management, supra note 78, at 159, 160.
\textsuperscript{125} See id. at 159–86.
\textsuperscript{126} For chronic lower back pain, psycho-physiological interventions work to maximize the effects of a multidisciplinary treatment program. See id. at 179.
\textsuperscript{127} Id. at 160 (citing E.B. Blanchard, Psychological Treatment of Benign Headache Disorders, 60 J. Consulting & Clinical Psychol. 537, 546 (1992)); see also Jean Schoenen, Tension-type headache, in Wall and Melzack’s Textbook of Pain, supra note 64, at 875, 882 (finding that the CBT approach is effective in treating tension headaches, but even more so when combined with relaxation and biofeedback).
\textsuperscript{128} See Arena & Blanchard, supra note 124, at 179.
\textsuperscript{129} See Wall, supra note 76, at 111 (“Like aspirin, it has spawned hundreds of descendants, so aspirin and opium together are responsible for at least 95 percent of the analgesic medicines used today.”).
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recent advent of time-released and orally administered opioids like OxyContin provide potent relief to individuals suffering from chronic pain, when used properly.\textsuperscript{130} The problems surrounding opioid use have now been identified and can be avoided by pain clinicians.\textsuperscript{131} In the past, studies in opioid addiction focused on drug users rather than patients, which inflated the percentage of users who became addicted. Several studies indicate that physician-administered opioids for individuals suffering from chronic pain lead to abuse in only the rarest of cases.\textsuperscript{132}

Aspirin and nonsteroidal anti-inflammatory drugs ("NSAIDs") are non-narcotic analgesics used for pain relief in the chronic pain patient.\textsuperscript{133} These analgesics have only been proven to be effective for pain based on inflammation.\textsuperscript{134} Other pharmacological agents shown to be effective against chronic pain include antidepressants, anticonvulsants, muscle relaxants, and sedatives.\textsuperscript{135} Each category has seen significant advancements in the past generation, and there is little reason to believe that future progress will not be made. These pharmacological pain management techniques work in tandem with the CBT approach. Together, they illustrate the key insights of the bio-psychosocial models of pain. The CBT approach, along with constantly evolving pharmacological treatments, cannot be reconciled with the per diem method. The per diem technique relies on the outdated biomedical model of pain that failed to acknowledge the necessarily subjective and changeable nature of pain. The pain experience cannot be accurately analogized in the manner that a plaintiff’s attorney would have the jury believe. Pain cannot be broken down into units that extend indefinitely into the future at a constant monetary rate.

\textsuperscript{130} See Arthur G. Lipman & Kenneth C. Jackson II, Opioid Pharmacotherapy, in Principles and Practice of Pain Medicine, supra note 56, at 583, 584–85. For a general overview of how these drugs work, see Anthony H. Dickinson & Brigitte Kieffer, Opiates: basic mechanisms, in Wall and Melzack’s Textbook of Pain, supra note 64, at 427, 427–39.

\textsuperscript{131} See Lipman & Jackson, supra note 130, at 596–98.

\textsuperscript{132} See id. at 597.

\textsuperscript{133} See Lee S. Simon, Nonsteroidal Anti-inflammatory Drugs, in Principles and Practice of Pain Medicine, supra note 56, at 616–26.

\textsuperscript{134} See Peter B. Polatin & Noor M. Gajraj, Integration of Pharmacotherapy with Psychological Treatment of Chronic Pain, in Psychological Approaches to Pain Management, supra note 78, at 276, 278–80.

\textsuperscript{135} Id. at 281–88.
III. POSSIBLE AVENUES OF REFORM

As this Note stresses, in an ideal world the per diem method would be impermissible in court. The purpose of this Note is to provide normative justifications for a rule forbidding per diem arguments. This Part briefly bridges the normative with the practical by discussing two possible settings for such a prohibition. Either courts or state legislatures could forbid the per diem argument, and there are costs and benefits associated with both judicial and legislative change. Because of the variations among state constitutions and state statutes, this Part will avoid making sweeping generalizations about the best course of action for advocates to take in particular states. As one prominent casebook states, the “struggle for power between the legislative and judicial branches of the states promises to be an important one, fervently pursued, during the next decade.”\textsuperscript{136} Although this struggle will play out differently from state to state, exploring the potential benefits and pitfalls of pursuing statutory or common-law reform in individual states provides a general framework for possible reform.

State courts of last resort can insert themselves into the tort-reform debate by invalidating or upholding state legislation on state constitutional grounds.\textsuperscript{137} In \textit{State ex rel. Ohio Academy of Trial Lawyers v. Sheward}, the Supreme Court of Ohio struck down a wide-ranging tort reform proposal that included damage caps and would have enacted statutes of repose for product liability and professional malpractice claims.\textsuperscript{138} The court found this legislative act unconstitutional as violative of both the doctrine of separation of powers and the state constitution’s one-subject provision.\textsuperscript{139} With respect to the noneconomic damages cap, the Supreme Court of Ohio held that the bill “is invalid on due process grounds because it is unreasonable and arbitrary, irrespective of whether it bears a


\textsuperscript{137} For an American Tort Reform Association-generated list of state reforms and whether state courts upheld their constitutionality, see Am. Tort Reform Ass’n, Tort Reform Record, July 13, 2004, available at http://www.atra.org/files.cgi/7802_record_6-04.pdf.


\textsuperscript{139} Id. at 1097.
real and substantial relation to public health or welfare.\textsuperscript{140} The “unreasonable and arbitrary” language derives from Article I, Section 16, of the Ohio Constitution, which is the state’s version of the rational relationship test for legislative acts not involving fundamental rights or suspect classes.\textsuperscript{142} Applying analysis from a previous case, the court surprisingly found, inter alia, no rational relationship between a damages cap and lower insurance rates.\textsuperscript{142}

Similarly, the Supreme Court of New Hampshire has held unconstitutional a statute limiting noneconomic damages in a personal injury action to $875,000.\textsuperscript{143} The court followed an earlier decision in which it ruled similarly against a $250,000 cap on noneconomic damages in medical malpractice actions.\textsuperscript{144} Embracing the reasoning of the earlier decision, the court decided that the cap in the present case did not contain a fair and substantial relationship to a legitimate government objective because damage awards constitute only a part of an insurance premium and “few individuals suffer non-economic damages in excess of” the cap.\textsuperscript{145} Rather than using rational basis review, the court read its own precedent as requiring a “middle-tier scrutiny standard” without discussing substantively why rational basis review was rejected.\textsuperscript{146} These examples of courts cutting down statutory tort reform do not represent either the norm or even a markedly growing trend.\textsuperscript{147} They are instead meant to illustrate that state legislative action does not in all cases guarantee that the resulting tort reform statute will be enforced in court.

\textsuperscript{140} Id. at 1095.
\textsuperscript{141} Id. at 1091–92.
\textsuperscript{142} See id. at 1092 (citing Morris v. Savory, 576 N.E.2d 765, 769–71 (Ohio 1991)).
\textsuperscript{144} See id. at 1233 (citing Carson v. Maurer, 424 A.2d 825, 836–37 (N.H. 1980)).
\textsuperscript{145} Id. at 1235 (quoting Carson, 424 A.2d at 836).
\textsuperscript{146} Id.
Notably, no state has yet passed a statute prohibiting the per diem method; all decisions on the subject have come from the judiciary. Still, states that statutorily permit the argument could with the same power exclude the per diem method. The history of the debate in Connecticut illustrates the point. In 1989, the Supreme Court of Connecticut in two cases ruled that plaintiffs’ counsel may not suggest a monetary value for pain and suffering and therefore may not make a per diem argument to the jury. The state legislature subsequently passed a law that specifically permitted both lump-sum and per diem arguments so long as they are accompanied by instructions that such figures are not evidence. The Supreme Court of Connecticut then upheld the statute, noting that “the existence of discretionary judicial authority over oral arguments does not automatically preclude some measure of legislative regulation.”

While the state legislature permitted mathematical formulas for pain and suffering damages, the judicial reasoning upholding the statute would apply equally to a statute forbidding the technique. With the possible exception of outlier states like Ohio, legislative intervention into the per diem realm does not conflict with constitutional rights or separation of powers.

Judicial intervention is also a feasible alternative as long as advancements in pain theory are incorporated into the legal discussion—a move that has not yet been made. Numerous state courts of last resort that permit the per diem method have given themselves room to maneuver around stare decisis should they decide that the technique no longer serves a fair and valuable purpose. A typical warning in a jurisdiction permitting the per diem states:

[A]n attorney who suggests that his client’s damages for pain and suffering be calculated on a “per diem” basis is not presenting evidence to the jury but is merely drawing an inference from the evidence given at the trial. Of course, the trial court has the power and duty to contain argument within legitimate bounds and it may

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148 A possible exception is in New Jersey, which statutorily allows time-unit arguments so long as no dollar amounts are assigned to the unit. See supra note 47.
prevent the attorney from drawing inferences not warranted by the evidence.\textsuperscript{153}

Although this particular quotation came from the Supreme Court of California in 1966, courts in other states have issued similar warnings.\textsuperscript{154} In the decade following \textit{Botta v. Brunner}, courts in many states handed down their responses, either siding in favor of\textsuperscript{155} or against\textsuperscript{156} the use of the per diem technique. The problem, however, is that courts permitting the per diem argument have not incorporated advances in the field of pain and suffering into their analyses. As Part II shows, damages for future pain and suffering cannot be measured in any sort of reasonable, predictable, and scientific manner. The Supreme Court of California and like-minded courts around the country need to revisit the quoted language. The trial court has a duty to prevent counsel from drawing inferences not warranted by the evidence. The evidence cannot predict unknown but likely advances in medicine, pain management therapy, or the plaintiff’s ability to cope with the injury. Using a per diem argument to infer what cannot be warranted by the evidence unfairly prejudices the defendant.

\textsuperscript{153} Beagle v. Vasold, 417 P.2d 673, 678 (Cal. 1966) (emphasis added).
\textsuperscript{154} See, e.g., Johnson v. Brown, 345 P.2d 754, 759 (Nev. 1959) (noting that the trial court “should not hesitate to limit counsel whenever it feels that the rights of the jury to determine for itself what [would be] fair and reasonable compensation for such items of damages, are being invaded, or to give such further admonition as it deems necessary.”); Weeks v. Holscaw, 295 S.E.2d 596, 601 (N.C. 1982) (“The trial judge should tell the jury that they are not to be governed by the amount of damages suggested by counsel for whatever unit of time counsel employed; that this argument does not constitute evidence but is merely an approach to the damages issue which the jury may consider but need not adopt, and that the jury’s ultimate obligation is to arrive at a lump sum amount which, in its view, is supported by the evidence and is fair and just to both the plaintiff and the defendant.”).
CONCLUSION

Immediately after the *Botta* decision, the majority of law review articles condemned the opinion as incomplete or simply wrong. Whether or not this criticism was warranted four decades ago, *Botta* cannot be faulted for failing to predict the revolution in pain theory that occurred in the 1970s. The contemporary debate fails, though, because it ignores or at least overlooks these advancements. The purpose of this Note has been to expand upon the *Botta* reasoning by updating and strengthening its premises.

The per diem technique takes an admittedly small dollar figure and multiplies it out in the future in an attempt to present the resulting damages award as the product of objective and principled mathematical reasoning. As this Note has shown, however, pain is subjective and changeable; any attempt to identify an objective and constant value to represent pain is necessarily inaccurate and therefore misleading for a jury. While not perfect, a virtue of the lump-sum method is that it recognizes its own indeterminacy. In this sense, the lump-sum method is transparently imprecise while the per diem argument speciously translates this imprecision into a mathematically certain figure. Even though the per diem method results in a lump-sum award in the sense that a plaintiff receives all the noneconomic damages at the conclusion of the trial, it is distinguishable from the typical lump sum because of the reasoning used to reach the result. The difference between pain and suffering damages generally and the per diem method is that the jury knowingly adopts an arbitrary figure in the former category. Even if the defendant offers a lower per diem number or a judge provides a cautionary instruction to the jury, the problem of anchoring still potentially gives a plaintiff’s attorney strong influence over the jury.

In sum, by falsely attributing mathematical certainty where none exists and ignoring the realities of modern pain management techniques, the per diem method misleads jurors into arriving at an artificially high award. For this reason, it should be prohibited in jurisdictions where it is currently permitted. By doing so, one of the

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157 See Cooper, supra note 9, at 403–04.
158 See supra notes 53–55 and accompanying text.
“pockets of irrationality” that Judge Paul Niemeyer warns about will be closed.