

# Law and the Emotions: The Problems of Affective Forecasting

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*Legal scholarship on “behavioralism” and the implications of cognitive biases for the law is flourishing. In parallel with the rise of such commentary, legal scholars have begun to discuss the role of the emotions in legal discourse. This discussion often addresses the “appropriateness” of various emotions for the substantive law, or attempts to model the place of the emotions in the law. Implicit in some of these theories, however, and explicit in others, is the assumption that emotions are “predictable,” “manageable,” and (for some commentators) under conscious control. This assumption is belied by psychological research on affective forecasting that demonstrates people’s inability to accurately predict future emotional states, both their own and those of others. Such inaccuracy has surprisingly broad implications for both substantive and procedural aspects of the legal system. Affective forecasting research also demonstrates the implausibility of some theoretical models of law and the emotions; if these models are flawed, then the normative conclusions drawn from them may be flawed as well.*

*I review here the empirical data demonstrating that individuals predict emotions inaccurately, and spin out the implications of this research for a number of substantive legal areas. The data show potential flaws in the way civil juries assign compensatory awards, and in our approach to certain aspects of sexual harassment law. The findings have profound implications for the presentation of victim impact statements to capital juries, but also undercut some abolitionist claims regarding the suffering that death row prisoners experience. Contract law is implicated by these findings as well, especially in the context of contracts for surrogate motherhood. Finally, the data are also relevant to the area of health law where, for instance, they apply broadly to the use of advance health directives, and more specifically to the context of euthanasia. I also discuss broader issues, such as the implications of the affective forecasting research for theories of law and the emotions. In this discussion I include some of the specific drawbacks to some current theories. I also address the data’s implications for the very theories of welfare and well-being that underlie much legal policy, and speculate about implications for paternalistic policy initiatives.*

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By many accounts, “law and economics,”<sup>1</sup> with its assumptions of rational actors and rational actions, began in the 1960s, with Ronald Coase’s influential work on bargaining, negative externalities, and rules of allocation,<sup>2</sup> Guido Calabresi’s application of economics to tort law,<sup>3</sup> and Gary Becker’s economic analysis of crime and punishment.<sup>4</sup> Others trace the implicit use of economic reasoning in judicial decisions back further, through the growth and development of the common law.<sup>5</sup> And even earlier, Jeremy Bentham had laid out a classic discussion of rational cost-benefit analysis in his treatment of punishment and deterrence.<sup>6</sup> One of the central tenets of such economic analysis, of course, is that of the rational decisionmaker: through an exercise of intelligent reason (conscious or unconscious<sup>7</sup>), humans act rationally, seeking to maximize our welfare by “choosing the best means to [our] ends”;<sup>8</sup> we are motivated to maximize our happiness or utility or wealth,<sup>9</sup> we fully consider the

1. RICHARD A. POSNER, *THE ECONOMICS OF JUSTICE* 3 (1983) (using the term to refer to the economic analysis of law).

2. Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960). Coase’s article was in turn expanded upon by Calabresi and Melamed’s influential work in the 1970’s. Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972).

3. GUIDO CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970); Guido Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts*, 70 YALE L.J. 499 (1961).

4. Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968).

5. E.g., RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* (5th ed. 1998). Posner is sometimes seen as “the true founder of the law and economics movement,” though with acknowledgement of Coase’s and Calabresi’s work. Robert A. Prentice, *Chicago Man, K-T Man, and the Future of Behavioral Law and Economics*, 56 VAND. L. REV. 1663, 1665 n.3 (2003). Others focus more on Becker and Calabresi’s work. E.g., KEITH N. HYLTON, *CALABRESI AND THE INTELLECTUAL HISTORY OF LAW AND ECONOMICS* 1 (Law and Econ., Working Paper No. 04-04, 2004), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=547082](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=547082) (“[M]odern law and economics . . . had its start with Gary Becker’s article on crime and Guido Calabresi’s book.”).

6. JEREMY BENTHAM, *THE PRINCIPLES OF MORALS AND LEGISLATION* (J.H. Burns & H.L.A. Hart eds., Athlone Press 1970) (1823). For a historical overview of the law and economics movement, noting earlier European antecedents, see FRANCESCO PARISI, *POSITIVE, NORMATIVE AND FUNCTIONAL SCHOOLS IN LAW AND ECONOMICS* (Law and Econ., Working Paper No. 04-22, 2004), available at [http://ssrn.com/abstract\\_id=548403](http://ssrn.com/abstract_id=548403).

7. POSNER, *supra* note 5, at 4 (“Rational maximization should not be confused with conscious calculation.”); Richard A. Posner, *Rational Choice, Behavioral Economics, and the Law*, 50 STAN. L. REV. 1551, 1551 (1998) (“Rational choice need not be conscious choice.”); cf. WILLIAM JAMES, *THE PRINCIPLES OF PSYCHOLOGY* 386 (Dover Publications 1950) (1890) (“Not one man in a billion, when taking his dinner, ever thinks of utility. He eats because the food tastes good and makes him want more.”).

8. Posner, *supra* note 7; POSNER, *supra* note 5, at 3 (“[M]an is a rational maximizer of his ends in life.”).

9. An assumption “basic to economic analysis” is that “‘individuals maximize welfare as they conceive it.’” Michael E. Swygert & Katherine Earle Yanes, *A Primer on the Coase Theorem: Making Law in a World of Zero Transaction Costs*, 11 DEPAUL BUS. L.J. 1, 24 (1998–1999) (quoting Gary S. Becker, *Nobel Lecture: The Economic Way of Looking at Behavior*, 101

information we have, and we tend to make the optimal decision based on that information.<sup>10</sup>

As is becoming increasingly clear, however, this central tenet and its underlying assumptions are flawed.<sup>11</sup> Cognitive psychologists have long documented “heuristics and biases” in human decisionmaking that reflect or lead to shortcuts in judgments;<sup>12</sup> these judgments tend to deviate systematically from those that rational decisionmaking would predict.<sup>13</sup> Social psychologists have long documented group decisionmaking phenomena that lead to nonoptimal decisions after group deliberation.<sup>14</sup> More recently,

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J. POL. ECON. 385, 386 (1993) (emphasis omitted)). Indeed, on one view, “rationality requires maximization.” ROBERT COOTER & THOMAS ULEN, *LAW AND ECONOMICS* 15 (4th ed. 2004).

10. See, e.g., Matthew D. Adler et al., *Introduction to Symposium, Preferences and Rational Choice: New Perspectives and Legal Implications*, 151 U. PA. L. REV. 707, 708–09 (2003) (describing the “traditional economic account” of rational decisionmakers); Mark Kelman, *Law and Behavioral Science: Conceptual Overviews*, 97 NW. U. L. REV. 1347, 1350 (2003) (noting economics’ “ground-floor proposition that individuals are rational, expected-utility maximizers”). But see POSNER, *supra* note 5, at 17–18 (noting that these are, overall, unrealistic but nevertheless helpful assumptions).

11. The literature documenting consistent departures from this standard rational decisionmaker model is voluminous and increasing. For general overviews documenting the departures, see JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES (Daniel Kahneman et al. eds., 1982) [hereinafter JUDGMENT UNDER UNCERTAINTY]; HEURISTICS AND BIASES: THE PSYCHOLOGY OF INTUITIVE JUDGMENT (Thomas Gilovich et al. eds., 2002) [hereinafter HEURISTICS AND BIASES]; and RICHARD THALER, *QUASI-RATIONAL ECONOMICS* (1993). For general discussions of the application of this literature to the law, see, among others, BEHAVIORAL LAW AND ECONOMICS (Cass R. Sunstein ed., 2000); Symposium, *Empirical Legal Realism: A New Social Scientific Assessment of Law and Human Behavior*, 97 NW. U. L. REV. 1075 (2003); Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471 (1998); Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051 (2000); Donald C. Langevoort, *Behavioral Theories of Judgment and Decision Making in Legal Scholarship: A Literature Review*, 51 VANDERBILT L. REV. 1499 (1998); and Jeffrey J. Rachlinski, *The “New” Law and Psychology: A Reply to Critics, Skeptics, and Cautious Supporters*, 85 CORNELL L. REV. 739 (2000).

12. See generally HEURISTICS AND BIASES, *supra* note 11; JUDGMENT UNDER UNCERTAINTY, *supra* note 11.

13. Moreover, this deviation is not random and centrally distributed, as law and economics predicts. See, e.g., Jeremy A. Blumenthal, *Law and Social Science in the Twenty-First Century*, 12 S. CAL. INTERDISC. L.J. 1, 29 (2002) (citing sources). For law and economics’ prediction as to the distribution see, for example, POSNER, *supra* note 5, at 19 (“Economics is concerned with explaining and predicting tendencies and aggregates rather than the behavior of each individual person; and in a reasonably large sample, random deviations from normal rational behavior will cancel out.”); Mark C. Suchman, *On Beyond Interest: Rational, Normative and Cognitive Perspectives in the Social Scientific Study of Law*, 1997 WISC. L. REV. 475, 478 (“If a few individuals depart from these modal tendencies [toward utility maximization], the theory posits that they do not do so in sufficient numbers or with sufficient regularity and cohesiveness to influence macro-social events.”).

14. Some of the best known include “groupthink” and “group polarization” (including both “risky shifts” and “cautious shifts”). See ROGER BROWN, *SOCIAL PSYCHOLOGY: THE SECOND EDITION* 200–48 (1986) (discussing group polarization); IRVING L. JANIS, *GROUPTHINK: PSYCHOLOGICAL STUDIES OF POLICY DECISIONS AND FIASCOES* (2d ed. 1982) (discussing groupthink); Cass Sunstein, *Deliberative Trouble? Why Groups Go to Extremes*, 110 YALE L.J.

legal scholars have not only conducted related empirical research, but have begun to extensively develop the implications of this legal and psychological research for legislative and judicial policy. This interdisciplinary work by social scientists and legal academics has blossomed into a field known variously as “behavioralism,”<sup>15</sup> “behavioral law and economics,”<sup>16</sup> “behavioral economics,”<sup>17</sup> “the ‘new law and psychology,’”<sup>18</sup> “legal decision theor[y],”<sup>19</sup> or “law and behavioral science.”<sup>20</sup>

Briefly, the field’s findings show that people do *not* always make optimal decisions, do *not* always take into account all available information, do *not* always act to maximize utility, and do *not* always think and act in the most rational way. Rather, humans exhibit “bounded rationality,”<sup>21</sup> “bounded willpower,”<sup>22</sup> and “bounded self-interest.”<sup>23</sup> We take cognitive “shortcuts,” failing to consider all available information, and thus arrive at objectively incorrect, nonoptimal decisions. We make “irrational” judgments.<sup>24</sup> We easily succumb to temptation, “tak[ing] actions that [we] know to be in conflict with [our] own long-term interests.”<sup>25</sup> And at times we act unselfishly, that is, not purely in our own self-interest, instead choosing to be fair or to punish unfairness in others.<sup>26</sup>

Another body of scholarship challenging the focus on rationality and reasoning seeks to remind us of the important role emotions play in making judgments, making decisions, and living lives.<sup>27</sup> Traditionally, discussions of law and the emotions portray

71, 106–08 (2000) (discussing group polarization in the legal context). For additional citations and examples, see, for example, Jeremy A. Blumenthal, *Who Decides? Privileging Public Sentiment About Justice and the Substantive Law*, 72 UMKC L. REV. 1, 19–20 & nn.117–22 (2003).

15. E.g., Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. REV. 630 (1999); Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 HARV. L. REV. 1420 (1999).

16. E.g., BEHAVIORAL LAW AND ECONOMICS, *supra* note 11.

17. E.g., Stephen J. Choi & Adam C. Pritchard, *Behavioral Economics and the SEC*, 56 STAN. L. REV. 1 (2003).

18. Rachlinski, *supra* note 11.

19. E.g., Gregory S. Mitchell, *Taking Behaviorism Too Seriously? The Unwanted Pessimism of the New Behavioral Analysis of Law*, 43 WM. & MARY L. REV. 1907, 1915 (2002).

20. E.g., Korobkin & Ulen, *supra* note 11; Thomas S. Ulen, *Evolution, Human Behavior, and Law: A Response to Owen Jones’s Dunwoody Lecture*, 53 FLA. L. REV. 931, 933 (2001).

21. See generally Herbert A. Simon, *A Behavioral Model of Rational Choice*, 69 Q.J. ECON. 99 (1955) (discussing phenomenon); Hugh Schwartz, *Herbert Simon and Behavioral Economics*, 31 J. SOCIO-ECON. 181, 181–83 (2002) (reviewing Simon’s work); Jolls et al., *supra* note 11 (further explaining phenomenon).

22. Jolls et al., *supra* note 11, at 1479 (giving examples of bounded willpower).

23. E.g., Cass R. Sunstein, *What’s Available? Social Influences and Behavioral Economics*, 97 NW. U. L. REV. 1295, 1312 (2003) (defining bounded self-interest); Jolls et al., *supra* note 11, at 1479 (giving examples of bounded self-interest).

24. See generally HEURISTICS AND BIASES, *supra* note 11; JUDGMENT UNDER UNCERTAINTY, *supra* note 11; THALER, *supra* note 11.

25. Jolls et al., *supra* note 11, at 1479.

26. E.g., Sunstein, *supra* note 23, at 1312.

27. Among a number of others, see Neal R. Feigenson, *Sympathy and Legal Judgment: A Psychological Analysis*, 65 TENN. L. REV. 1 (1997); Peter H. Huang, *Reasons Within*

emotions as a counterpoint to rational thought: emotion has typically been viewed as a corruptive force that distorts logical reasoning.<sup>28</sup> Under this view—also called the “mechanistic” perspective,<sup>29</sup> and arguably the prevailing view in American law—emotion is wholly distinct from cognition, and must be carefully cabined so that it does not bias or influence logic and rational reasoning.<sup>30</sup> In response, however, some legal scholars have framed emotions as an equally valid and important aspect of legal decisionmaking, seeking to give a fuller conception of human reasoning.<sup>31</sup> Some

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*Passions: Emotions and Intentions in Property Rights Bargaining*, 79 OR. L. REV. 435 (2000); Owen D. Jones, *Law, Emotions, and Behavioral Biology*, 39 JURIMETRICS J. 283 (1999). See generally Laura E. Little, *Negotiating the Tangle of Law and Emotion*, 86 CORNELL L. REV. 974 (2001) (noting the recent increase in legal attention to the emotions); Blumenthal, *supra* note 13, at 24–25 (same).

28. Such a view stems back to ancient philosophy. See Dan M. Kahan & Martha C. Nussbaum, *Two Conceptions of Emotion in Criminal Law*, 96 COLUM. L. REV. 269, 278–79 (1996) (reviewing sources); John D. Mayer, *Foreword* to THE WISDOM IN FEELING: PSYCHOLOGICAL PROCESSES IN EMOTIONAL INTELLIGENCE x, xi (Lisa Feldman Barrett & Peter Salovey eds., 2002) (discussing Stoic philosophical approach to emotion). In modern times, the perspective appears in both case law and commentary. *E.g.*, *Gardner v. Florida*, 430 U.S. 349, 358 (1977) (“It is of vital importance to the defendant and to the community that any decision to impose the death sentence be, and appear to be, based on reason rather than caprice or emotion.”); see also, *e.g.*, Jeremy A. Blumenthal, *The Admissibility of Victim Impact Statements at Capital Sentencing: Traditional and Non-Traditional Perspectives*, 50 DRAKE L. REV. 67, 76 (2001) (noting “long-held belief that emotion interferes with reasoning [such that] any overly emotional or inflammatory evidence should be excluded from the jury’s decisionmaking process”); Steven P. Croley, *Vicarious Liability in Tort: On the Sources and Limits of Employee Reasonableness*, 69 S. CAL. L. REV. 1705, 1732 (1996) (“Biases, framing effects, and emotions constrain rational decisionmaking.”); Feigenson, *supra* note 27, at 13 (noting law’s “general ban” on sympathy and that, ordinarily, “the appropriate role for sympathy, and emotion generally, in legal judgment is no role at all”); Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 3 n.5 (2002) (noting “concerns that jury decisionmaking in patent cases may be based on bias or emotion rather than rationality or merit”); Tamara R. Piety, *“Merchants of Discontent”: An Exploration of the Psychology of Advertising, Addiction, and the Implications for Commercial Speech*, 25 SEATTLE U. L. REV. 377, 400–02 (2001) (noting “long tradition” of viewing emotions as impediments to reasonable, rational thinking); Note, *Disqualification of Judges for Bias in the Federal Courts*, 79 HARV. L. REV. 1435, 1446 (1966) (noting assumption that “emotions, desires, and opinions . . . [may] interfere with the rational process”); Peter H. Huang, *Emotional Investing and Regulating Anxious or Exuberant Securities Markets*, at 4 (2003) (unpublished manuscript, on file with author) [hereinafter Huang, *Emotional Investing*]; Peter H. Huang, *Law and Economics in Xena, Warrior Princess*, 2 Whoosh ¶ 14 (Oct. 1996), at <http://www.whoosh.org/issue2/huang.html> [hereinafter Huang, *Xena*] (noting the “commonplace . . . idea that a fundamental conflict exists between thoughts and emotions”).

29. Kahan & Nussbaum, *supra* note 28, at 278–79.

30. *Cf.* Jeremy A. Blumenthal, *Does Mood Influence Moral Judgment? An Empirical Test with Legal and Policy Implications*, 29 LAW & PSYCHOL. REV. (forthcoming 2005) (discussing affective biases on judgments); Anthony T. Kronman, *Paternalism and the Law of Contracts*, 92 YALE L.J. 763, 792–93 (1983) (discussing importance of disengaging emotions or “desires” from reasoning and of making decisions “in a considered, dispassionate way”).

31. See generally THE PASSIONS OF LAW (Susan A. Bandes ed., 1999); see also Susan A. Bandes, *Empathy, Narrative, and Victim Impact Statements*, 63 U. CHI. L. REV. 361, 366 (1999) (not only do “emotions have a cognitive aspect,” but “reasoning has an emotive aspect” as

commentators have drawn attention to the role of emotions in order to point out the deficiency of cognition-based legal rules.<sup>32</sup> Others suggest actually privileging emotional judgments in some instances by encouraging the use of the “right” emotions in legal decisionmaking. Under that approach, for instance, it is important that juries neither consider the “wrong” emotions (“prejudice and bigotry”) nor consider the “right emotions in the wrong contexts” (empathy that is “unaccompanied by critical reflection”).<sup>33</sup> Yet others attempt to explicitly reconcile emotion with rational decisionmaking by incorporating emotional states into such decision processes. These scholars suggest that even when experiencing an emotional state—the sort of experience that under the “mechanistic” view supposedly corrupts rational thought—we nevertheless continue to think rationally. Thus, they suggest that emotional states nevertheless involve rational reasoning even as they are being experienced.<sup>34</sup>

Running through such discussions of emotion is the implicit (and at times explicit) assumption that emotional states are conscious and controllable, that people are aware of and can predict their emotions, and that as a partial result, “people can cultivate their

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well); Kahan & Nussbaum, *supra* note 28, at 285–86 (discussing “evaluative” conception of emotions); Huang, *Xena*, *supra* note 28, at ¶ 16 (“Emotions are neither separate from, nor opposite to, reason.”).

32. *E.g.*, Hanson & Kysar, *Problem of Market Manipulation*, *supra* note 15; Huang, *Emotional Investing*, *supra* note 28.

33. Bandes, *supra* note 31, at 393–94, 399; *cf.* Kahan & Nussbaum, *supra* note 28, at 365 (noting possibility of “inappropriate emotional evaluations” and of punishing criminals more severely when jurors are motivated by such improper emotions).

34. *E.g.*, Neal K. Katyal, *Deterrence’s Difficulty*, 95 MICH. L. REV. 2385, 2393 (1997) (“Passion, after all, comes in different forms, and a penalty structure may induce people to act in particular ways by assigning costs to particular passionate activities. As Richard Herrnstein puts it, when husbands and wives start throwing dishes at each other, they do not usually throw the fine china.”) (citation omitted); Eric A. Posner, *Law and the Emotions*, 89 GEO. L.J. 1977, 1981 (2001) (“[P]eople continue to act rationally while in an emotion state, even though they act differently from the way they do in the calm state.”); Huang, *Xena*, *supra* note 28, at ¶ 16; *cf.* George Loewenstein, *Out of Control: Visceral Influences on Behavior*, 65 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 272, 274 (1996) (suggesting that “visceral influences on behavior can, in fact, be expressed in decision-theoretic terms”).

emotions.”<sup>35</sup> Some of these discussions take the assumption for granted;<sup>36</sup> others depend on it outright.<sup>37</sup>

But the degree of interplay in consciousness between emotion and cognition is much less clear than these scholars suggest.<sup>38</sup> More important, their work depends in

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35. Posner, *supra* note 34, at 1985; *cf.* Marjorie Maguire Shultz, *Reproductive Technology and Intent-Based Parenthood: An Opportunity for Gender Neutrality*, 1990 WIS. L. REV. 297, 349 n.160 (discussing individuals’ relative abilities “to predict and takes steps to avoid . . . emotional volatility”).

36. *E.g.*, Bandes, *supra* note 31, at 370–71 (apparently assuming that the statement that the emotion and cognition systems are related implies that one can consciously restrain the effect of emotional information on one’s reasoning). *But see* JOSEPH E. LEDOUX, *THE EMOTIONAL BRAIN: THE MYSTERIOUS UNDERPINNINGS OF EMOTIONAL LIFE* 19 (1996) (“While conscious control over emotions is weak, emotions can flood consciousness. This is so because the wiring of the brain at this point in our evolutionary history is such that connections from the emotional systems to the cognitive systems are stronger than connections from the cognitive systems to the emotional systems.”); Brian Rosebury, *On Punishing Emotions*, 16 *RATIO JURIS* 37, 43 (2003) (plausibly suggesting that certain psychological precursors of emotional judgments are “less amenable . . . to conscious supervision”).

37. Kahan & Nussbaum, *supra* note 28, at 273 (advocating an “evaluative” perspective on the emotions that suggests that “persons (individually and collectively) can and should shape their emotions through moral education”); Posner, *supra* note 34, at 1981.

38. Two examples may suffice. First, it seems intuitive that the experience of an affective state is conscious in the sense that one “knows” one is angry, sad, elated, or aroused. But this intuition may be wrong; empirical studies have long shown that emotional arousal—that is, what would be perceived as an emotional state—can be misattributed to unrelated causes. *E.g.*, D.G. Dutton & A.P. Aron, *Some Evidence for Heightened Sexual Attraction Under Conditions of High Anxiety*, *J. PERSONALITY & SOC. PSYCHOL.* 510 (1974); Stanley Schachter & Jerome E. Singer, *Cognitive, Social, and Physiological Determinants of Emotional State*, 69 *PSYCHOL. REV.* 379 (1962). That is, when ambiguous physiological activity or arousal exists, we may look to our surroundings for cues as to the cause of that arousal, and label that arousal with different emotions based on what we perceive. For instance, in Dutton and Aron’s research male subjects were asked to walk across a small bridge suspended over a ravine. *See* Dutton & Aron, *supra*. Either as they were crossing (and thus were under some state of physiological arousal due to the perceived danger), or as they were resting after having crossed (and thus had had the physiological arousal diminish), an attractive female research confederate approached and spoke to them. The variable of interest was the percentage of subjects in each condition who later called the woman. Approximately twice as many men from the “crossing” condition called her as did in the “resting” condition; the researchers interpreted this as a misattribution of the physiological arousal from the crossing to the attractiveness of the woman. *Id.*

Second, evidence shows that affect can substantially influence judgments, “regardless of whether the cause of that affect is consciously perceived. [Empirical work also demonstrates] the independence of affect from cognition, indicating that there may be conditions of affective or emotional arousal that do not necessarily require cognitive appraisal. This affective mode of response, unburdened by cognition and therefore much faster, has considerable adaptive value.” Paul Slovic et al., *The Affect Heuristic*, in *HEURISTICS AND BIASES*, *supra* note 11, at 397, 401. For a good discussion of the extent to which emotion and cognition may be integrated at a subconscious level, see Jeremy R. Gray, *Integration of Emotion and Cognitive Control*, 13 *CURRENT DIRECTIONS IN PSYCHOL. SCI.* 46 (2004); for neurophysiological evidence regarding such integration, see Jeremy R. Gray & Todd S. Braver, *Integration of Emotion and Cognitive*

part on the assumption that people can accurately predict and consciously control emotional states. As this Article shows, however, this assumption may be flawed, and legal theory and policy based on these assumptions may be seriously misguided. First, neurological evidence suggests that cognitive influence over emotions is weaker than emotional influence over cognitions.<sup>39</sup> Second, as discussed more fully below, substantial empirical evidence demonstrates that people are in fact unable to accurately predict their own or others' emotional states. Recent social psychological research on *affective forecasting*—the ability to predict future emotional states—provides strong evidence to that effect.<sup>40</sup>

The research has important implications for law and policy. For instance, in deciding whether to impose a death sentence, capital sentencing juries may be permitted to hear testimony from murder victims' family members about how the murder affected them and will continue to affect them.<sup>41</sup> Although judicial and scholarly debate continues as to whether such "victim impact statements" are at all relevant to a defendant's desert,<sup>42</sup> both sides of the debate presume that witnesses' subjective reports of their emotional reactions are valid and accurate. But, as I discuss below, inaccuracies in such reports may in fact lead to the overapplication of capital sentences. Similarly, legal commentators seeking to develop theories and models of emotions' place in the law start from assumptions that emotions are predictable, manageable, and (for some theorists) consciously controllable.<sup>43</sup> Eric Posner, for instance, draws inferences about emotion's role in jury decisionmaking, contract law, tort law, and property law from such assumptions. But the social science data reviewed below shows such assumptions to be mistaken—suggesting that the policy suggestions based on the derived models may be seriously flawed.

No mention of affective forecasting appears, however, in discussions of victim impact statements. Nor is the phenomenon recognized in most theoretical efforts to incorporate emotions into the law, or model their influence on legal topics. Indeed, few

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*Control: A Neurocomputational Hypothesis of Dynamic Goal Regulation*, in EMOTIONAL COGNITION 289 (Simon C. Moore & Michael R. Oaksford eds., 2002).

39. LEDOUX, *supra* note 36, at 19. I will not discuss the neurological findings in detail, as my focus is the social cognitive psychological data regarding affective forecasting. For a useful discussion see, for example, Colin Camerer et al., *Neuroeconomics: How Neuroscience Can Inform Economics*, 43 J. ECON. LIT. (forthcoming 2005); Gray, *supra* note 38; Gray & Braver, *supra* note 38.

40. E.g., Daniel T. Gilbert et al., *Immune Neglect: A Source of Durability Bias in Affective Forecasting*, 75 J. PERSONALITY & SOC. PSYCHOL. 617, 621–33 (1998). For a popular account of the recent research, see Jon Gertner, *The Futile Pursuit of Happiness*, N.Y. TIMES MAG. (Sept. 7, 2003). See also John Sabini et al., *Underestimates and Truly False Consensus Effects in Estimates of Embarrassment and Other Emotions*, 21 BASIC & APP. SOC. PSYCHOL. 223 (1999); David A. Schkade & Daniel Kahneman, *Does Living in California Make People Happy? A Focusing Illusion in Judgments of Life Satisfaction*, 9 PSYCHOL. SCI. 340, 340 (1998); Timothy D. Wilson et al., *Focalism: A Source of Durability Bias in Affective Forecasting*, 78 J. PERSONALITY & SOC. PSYCHOL. 821, 821 (2000). For a thorough recent review of the affective forecasting literature, see Timothy D. Wilson & Daniel T. Gilbert, *Affective Forecasting*, 35 ADVANCES IN EXPERIMENTAL SOC. PSYCHOL. 345 (Mark Zanna ed., 2003). I draw on this review in Part I.

41. See *infra* Part II.A.2.a.

42. See *infra* text accompanying notes 218–221.

43. See *infra* Part III.B.

legal scholars have recognized the affective forecasting phenomenon at all.<sup>44</sup> Fewer still have discussed the important legal implications of such inaccurate predictions.<sup>45</sup> In the remainder of the Article I address this gap.

First, in Part I, I define *affective forecasting* in more detail. I review the empirical research documenting people's shortcomings in predicting future affective states.<sup>46</sup> I also point out some shortcomings of the research and directions it might be taken in order to develop a fuller account of people's ability to predict affective experiences. In Part II, I develop a number of implications that both the findings and the shortcomings have for legal theory and legal policy. Such research has far-reaching implications for a surprising number of areas in the substantive law that involve the ability to predict one's own or another's future emotions: for instance, aspects of jury decisionmaking,<sup>47</sup> capital punishment,<sup>48</sup> health and biomedical law,<sup>49</sup> and others. I discuss these areas in some detail; nevertheless, I also address reasons that militate against the immediate application of affective forecasting research in such areas. In some instances I suggest

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44. See Ronald J. Allen & Brian Leiter, *Naturalized Epistemology and the Law of Evidence*, 87 VA. L. REV. 1491, 1510 n.55 (2001) (referring to the affective forecasting phenomenon); Chris Guthrie, *Better Settle Than Sorry: The Regret Aversion Theory of Litigation Behavior*, 1999 U. ILL. L. REV. 43, 85–86 [hereinafter Guthrie, *Regret Aversion*] (noting individuals' inability to predict how they will feel in the future); Chris Guthrie & David Sally, *The Impact of the Impact Bias on Negotiation*, 87 MARQ. L. REV. 817 (2004) (recognizing social science literature on affective forecasting); Chris Guthrie, *Panacea or Pandora's Box? The Costs of Options in Negotiations*, 88 IOWA L. REV. 601, 648 (2003) (citing article on affective forecasting); Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: A Response to Market Manipulation*, 6 ROGER WILLIAMS U. L. REV. 259, 368 (2000) (discussing research on affective forecasting); Mark Kelman, *Law and Behavioral Science: Conceptual Overviews*, 97 NW. U. L. REV. 1347, 1356 (2003) ("Consider also the important point made by behavioral social scientists who investigate hedonics: individuals invariably make concrete choices and establish short-term behavioral plans in expectation that the choices they make will make them happier than the ones they forego, but they may for a variety of reasons know very little about what has made them happy or will make them happy."); Daphna Lewinsohn-Zamir, *The Objectivity of Well-Being and the Objectives of Property Law*, 78 N.Y.U. L. REV. 1669, 1678–79 (2003) ("We may wish our preferences to be fulfilled because we anticipate that their fulfillment will improve our lives, but these expectations may be disappointed when we actually experience the satisfaction of our desires."); see also Blumenthal, *supra* note 28, at 83–88 (discussing implications of affective forecasting for capital sentencing); Blumenthal, *supra* note 13, at 27 (discussing the phenomenon); Huang, *Emotional Investing*, *supra* note 28, at 7 (alluding to the phenomenon).

45. E.g., Allen & Leiter, *supra* note 44, at 1510 n.55 (noting relevance of affective forecasting to issues of euthanasia); Blumenthal, *supra* note 28, at 83–88 (discussing implications of affective forecasting for capital sentencing); Guthrie & Sally, *supra* note 44 (discussing implications for negotiation).

46. Of course, "affective forecasting" simply refers to the prediction of such states, accurate or not. For shorthand, however, I will at times use the term to refer to the phenomenon of inaccurate predictions, or to the literature documenting such inaccuracies. Increasingly, the term "impact bias" is being used to cover various errors in predicting affective states. Wilson & Gilbert, *supra* note 40, at 351; Guthrie & Sally, *supra* note 44.

47. See *infra* Part II.A.

48. See *infra* Part II.A.2.

49. See *infra* Part II.B.

specific empirical research that might be conducted in order to address some of these concerns.

In Part III, I address broader issues. Again, some legal theorists, for instance, Eric Posner and Susan Bandes, have worked from the assumptions that people can well predict and control their emotional experiences. I discuss how empirical research suggesting otherwise, therefore, may undercut the models they develop from those assumptions. Next, I note what the affective forecasting findings might mean for welfare-based theories of rational decisionmaking more broadly, and for current debates over paternalism. In the Conclusion, I also emphasize why I remain neutral as to some of the implications discussed throughout. Although in some instances further empirical research may be useful, I emphasize the usefulness of social science data in “calling the legal system’s bluff.”<sup>50</sup> Identifying incorrect premises from which the law develops its doctrine need not always mean that the law must be changed.<sup>51</sup> Where it is not changed—perhaps because we value other factors more than the application of certain data—courts and legislatures must nevertheless acknowledge those data and explain why they deliberately chose to reject them. “Forcing” such explanations will increase the transparency, legitimacy, and perhaps the validity of the reasoning underlying law and policy.

#### I. AFFECTIVE FORECASTING

Imagine that one morning your telephone rings and you find yourself speaking with the King of Sweden, who informs you in surprisingly good English that you have been selected as this year’s recipient of a Nobel prize. How would you feel, and how long would you feel that way? . . . Now imagine that the telephone call is from your college president, who regrets to inform you (in surprisingly good English) that the Board of Regents has dissolved your department, revoked your appointment, and stored your books in little cardboard boxes in the hallway. How would you feel, and how long would you feel that way?<sup>52</sup>

Perspectives on what makes people happy, whether economic, philosophical,<sup>53</sup> or psychological,<sup>54</sup> have tended (broadly speaking) to center on notions of *utility* or

50. Blumenthal, *supra* note 13, at 51; see Thomas Grisso & Michael J. Saks, *Psychology’s Influence on Constitutional Interpretation: A Comment on How to Succeed*, 15 L. & HUM. BEHAV. 205, 208 (1991); Tracey L. Meares & Bernard E. Harcourt, *Foreword: Transparent Adjudication and Social Science Research in Constitutional Criminal Procedure*, 90 J. CRIM. L. & CRIMINOLOGY 733, 735 (2000).

51. For instance, if the implications suggested in Part II.B.1.a are played out to their extreme, profound substantive changes in contract law might result, changes that may or may not well serve the legal system.

52. Gilbert et al., *supra* note 40, at 617.

53. For a distinction between the economic and the philosophical perspectives, see, for example, POSNER, *supra* note 5, at 12–13; POSNER, *supra* note 1, at 49.

54. See generally WELL-BEING: THE FOUNDATIONS OF HEDONIC PSYCHOLOGY (Daniel Kahneman et al. eds., 1999) [hereinafter WELL BEING]; Richard M. Ryan & Edward L. Deci, *On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being*, 52 ANN. REV. PSYCHOL. 141 (2001).

welfare—very loosely, on notions of value or happiness.<sup>55</sup> In more prosaic terms, people want to be happy, to make themselves happy, and to have that which will make them happy—be it love, marriage, a good job, children, money, potato chips, or money with which to buy potato chips. Of course, substantial public policy debate exists over how to best achieve such preferences, and over which preferences should be counted for which people and to which degree. Such debates generally take as a starting point, however, the intuitively plausible assumption that *people know what will make them happy* (i.e., what will increase their welfare), and will seek out those things. To varying degrees economic analysis, philosophical notions of utilitarianism, and the hedonic psychological approach assume this as well.

The accuracy of this assumption, therefore, has important repercussions both for these perspectives on what makes people happy, and for the larger societal debates about how to achieve such happiness and through what policies. People often make decisions based on perceptions of how they will feel about different potential outcomes.<sup>56</sup> Thus, “[a]ccurate predictions of future tastes . . . emerge as [a] critical element[] of an individual’s ability to maximize the experienced quality of his outcomes.”<sup>57</sup>

Accordingly, social scientists have recently begun to investigate empirically people’s ability to predict their future feelings.<sup>58</sup> Unfortunately for utility or hedonism models, though, developing evidence runs counter to our intuitions, showing that these predictions are typically inaccurate. The remainder of this Part discusses these findings; Parts II and III then show their important implications for law and public policy.

#### A. Predicting Future Feelings

Recent work in social psychology has moved from simply measuring individuals’ predictions about future emotional states to comparing those predictions with the actual emotional states experienced by people in such situations. This has allowed investigation of potential errors in those predictions.

Such errors might occur in at least four areas: predicting the valence of one’s future feelings, predicting the specific emotions that might be experienced, predicting the intensity of the feeling, and predicting the duration of the emotional state.<sup>59</sup> The first two types of predictions are relatively unproblematic. Not surprisingly, people are generally (though not always) accurate at knowing the valence of their emotional

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55. Most broadly, “welfare” or “preferences” or “happiness” are used in such discussions to embrace that which people want. “Utility,” or one of these proxies, may refer to the experience of some outcome or to the desire for that outcome. *E.g.*, Daniel Kahneman, *New Challenges to the Rationality Assumption*, 3 *LEGAL THEORY* 105, 107 (1997).

56. L. W. SUMNER, *WELFARE, HAPPINESS, AND ETHICS* 131 (1996) (“[M]y preferences about the future always represent my view now of how things will go then.”); Roger Buehler & Cathy McFarland, *Intensity Bias in Affective Forecasting: The Role of Temporal Focus*, 27 *PERSONALITY & SOC. PSYCHOL. BULL.* 1480, 1480 (2001); *see infra* notes 498–500 and accompanying text.

57. Kahneman, *supra* note 55, at 107.

58. *See* Wilson & Gilbert, *supra* note 40, at 346 (collecting studies).

59. *Id.* at 346–47.

reaction to an experience—of knowing, that is, whether an experience will evoke a positive or negative emotional reaction.<sup>60</sup> Similarly—and again somewhat unsurprisingly—people are usually able to predict which specific emotions they will experience.<sup>61</sup> For predictions of both which emotions will be experienced and the valence of those emotions, accuracy will most likely be influenced by the emotion's complexity or temporal proximity. That is, a prediction of how one will feel in response to a relatively straightforward experience, or one that is relatively soon, is generally more likely to be accurate than a prediction of a more complex event or one far in the future.<sup>62</sup> In part this is due to our tendency to oversimplify our images or construals of what future events will be like.<sup>63</sup> In part it is due to our tendency not to recognize that emotions themselves are complex; the same event may evoke multiple (even apparently incompatible) emotional reactions.<sup>64</sup>

And yet, although people are relatively adept at knowing which emotion they will experience and whether it will be positive or negative, people are surprisingly inaccurate at predicting the intensity and the duration of those emotions. Moreover, this is so even for relatively “straightforward” emotional experiences, such as winning the lottery or suffering severe injuries.<sup>65</sup> It is on such inaccuracies—in predictions of the intensity and duration of future emotional experiences—that most of the affective forecasting research has been focused.

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60. E.g., Daniel T. Gilbert et al., *The Trouble with Vronsky: Impact Bias in the Forecasting of Future Affective States*, in *THE WISDOM IN FEELING*, *supra* note 28, at 114, 116 (Lisa Feldman Barrett & Peter Salovey eds., 2002); Michael D. Robinson & Gerald L. Clore, *Simulation, Scenarios, and Emotional Appraisal: Testing the Convergence of Real and Imagined Reactions to Emotional Stimuli*, 27 *PERSONALITY & SOC. PSYCHOL. BULL.* 1520 (2001).

61. E.g., Robinson & Clore, *supra* note 60, at 1523–31.

62. *But see infra* text accompanying notes 98–99 (showing an example of mistaken predictions even minutes before the experience).

63. E.g., Daniel T. Gilbert & Timothy D. Wilson, *Miswanting: Some Problems in the Forecasting of Future Affective States*, in *THINKING AND FEELING: THE ROLE OF AFFECT IN SOCIAL COGNITION* 178, 179–80 (Joseph P. Forgas ed., 2000) (noting tendency to imagine future events generally and in the abstract); Nira Liberman et al., *The Effect of Temporal Distance on Level of Mental Construal*, 38 *J. EXPERIMENTAL SOC. PSYCHOL.* 523, 527–28 (2002) (demonstrating that people's predictions of future emotional experiences are less complex for upcoming events than for ones further in the future).

64. Jeff T. Larsen et al., *The Agony of Victory and the Thrill of Defeat*, 15 *PSYCHOL. SCI.* 325 (2004) (showing possibility of experiencing positive and negative affect simultaneously rather than sequentially); Jeff T. Larsen et al., *Can People Feel Happy and Sad at the Same Time?*, 81 *J. PERSONALITY & SOC. PSYCHOL.* 684 (2001) (showing concurrent existence of happy and sad feelings); Ulrich Schimmack, *Pleasure, Displeasure, and Mixed Feelings? Are Semantic Opposites Mutually Exclusive?*, 15 *COGNITION & EMOTION* 81 (2001) (showing concurrent existence of pleasure and displeasure, in contrast to absence of concurrent feelings of heat and cold); Scott H. Hemenover & Ulrich Schimmack, *That's Disgusting! . . . , But Very Amusing: Mixed Feelings of Amusement and Disgust* (2002) (unpublished manuscript, on file with author) (showing concurrent existence of disgust and amusement in response to “disgusting humor”).

65. See Philip Brickman et al., *Lottery Winners and Accident Victims: Is Happiness Relative?*, 36 *J. PERSONALITY & SOC. PSYCHOL.* 917 (1978).

Thus, what is perhaps the “most famous article in the psychological literature on well-being”<sup>66</sup> compared the self-reported life satisfaction of accident victims (paraplegics and quadriplegics) to that of both lottery winners and control subjects.<sup>67</sup> In a follow-up study, the authors also separately compared the self-reported life satisfaction of additional lottery winners to additional controls.<sup>68</sup> Despite the intuition that accident victims would be much unhappier (and lottery winners much happier) than control subjects, the authors found only small differences among ratings of well-being.<sup>69</sup> In particular, paraplegics rated their present happiness higher than expected, and the pleasure they reported getting from “mundane” activities such as hearing a funny joke, watching television, or talking with a friend was only marginally lower than that reported by controls.<sup>70</sup>

These early, counterintuitive findings have been corroborated. Individuals using wheelchairs give positive reports of subjective well-being, for instance, recalling more positive than negative events in their lives.<sup>71</sup> Another study examining victims of spinal cord injuries found that although anxiety was the predominant emotion one week after the accident, happiness emerged as the predominant affect as soon as three weeks after the accident, remaining so at a subsequent interview at eight weeks postaccident.<sup>72</sup> And these findings are mirrored in people’s emotional reactions to other traumatic events, such as the death of a loved one. Participants in one study, for example, reported that the frequency with which they experienced positive affect essentially returned to normal levels within a year following the death of a loved one.<sup>73</sup> In another study, bereaved spouses reported life satisfaction scores that were only “minimal[ly]” lower than non-bereaved spouses’ scores, two years after their spouses’ deaths.<sup>74</sup> Indeed, the

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66. Schkade & Kahneman, *supra* note 40, at 340 (referring to Brickman et al., *supra* note 65).

67. Brickman et al., *supra* note 65, at 920–21.

68. *Id.* at 922–23.

69. “The [Brickman et al.] article is famous because its results are deeply counterintuitive.” Schkade & Kahneman, *supra* note 40, at 340.

70. Brickman et al., *supra* note 65, at 921. Similarly, although lottery winners were quite happy with their prize, “they took less pleasure than controls in a variety of ordinary events” and, even more counterintuitively, “were not in general happier than controls.” *Id.* at 923.

71. Ed Diener & Carol Diener, *Most People Are Happy*, 7 PSYCHOL. SCI. 181, 181 (1996) (citing A. Allman, *Subjective Well-Being of People with Disabilities: Measurement Issues* (1990) (unpublished master’s thesis, University of Illinois Urbana–Champaign)).

72. Roxane Lee Silver, *Coping with an Undesirable Life Event: A Study of Early Reactions to Physical Disability* 60 (1982) (unpublished Ph.D. dissertation, Northwestern University) (“Anxiety appears as the dominant affect at 1 week post injury, followed by happiness, depression, and anger. Unexpectedly, happiness emerges as the predominant affect at both the 3- and 8-week assessments, as anxiety decreases in dominance. Anger is relatively rare relative to anxiety, depression, and happiness at all three assessments.”) (on file with author).

73. Eunkook Suh et al., *Events and Subjective Well-Being: Only Recent Events Matter*, 70 J. PERSONALITY & SOC. PSYCHOL. 1091, 1095 (1996).

74. Dale A. Lund et al., *Impact of Spousal Bereavement on the Subjective Well-Being of Older Adults*, in *OLDER BEREAVED SPOUSES: RESEARCH WITH PRACTICAL APPLICATIONS* 3, 8 (Dale A. Lund ed., 1989). “A general conclusion of this study is that the death of a spouse in

same authors found that although bereaved spouses reported moderate levels of stress in the first two years after a death, that stress was less than non-bereaved control subjects anticipated.<sup>75</sup> In brief, empirical evidence suggests that although any traumatic experience is harrowing and painful—and I do not mean to belittle or minimize the loss or emotional trauma experienced as a result—through a process of “hedonic adaptation,” victims of such negative experiences may be able to return to a more normal experience of emotion sooner than might be expected.<sup>76</sup>

There are additional examples of adaptation to presumably unpleasant events and circumstances with implications for the legal system. Studies show that after an initially difficult period, prisoners may be able to adapt reasonably well to incarceration. Research from the 1980s and early 1990s demonstrated prisoners’ generally successful long-term adjustment to prison, which included improvements in attitude and decreases in deviance, declines in mood problems, and even decreases in prisoners’ boredom.<sup>77</sup> Even those placed in solitary confinement apparently managed to develop coping mechanisms and adapt to such circumstances.<sup>78</sup> Below, I discuss this adaptation phenomenon in the context of implications for capital punishment.<sup>79</sup>

Such studies find that some people’s ability to adapt to unexpected traumas is not what we might expect. But another important insight from the recent affective forecasting literature is that people can be wrong in predicting their own emotional

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later life does impact the surviving spouse’s subjective well-being but not to the extent that many would expect . . .” *Id.* at 12.

75. Michael S. Caserta & Dale A. Lund, *Bereavement Stress and Coping Among Older Adults: Expectations Versus the Actual Experience*, 25 OMEGA: J. DEATH & DYING 33, 38–42 (1992).

76. Camille B. Wortman & Roxane Cohen Silver, *The Myths of Coping with Loss*, 57 J. CONSULTING & CLINICAL PSYCHOL. 349 (1989) (noting mistaken assumptions about loss, such as that depression is inevitable after loss); cf. Blumenthal, *supra* note 28, at 85; Gilbert et al., *supra* note 60, at 116–17 (“Many events—such as rape, divorce, or the death of a child—have emotional consequences that may last for months, years, or even a lifetime, and it would be perverse for anyone to suggest that such events do not matter. They most certainly do. But there is considerable evidence to suggest that hedonic reactions to events—even truly tragic events—are shorter-lived than one might expect, and that people typically return to their emotional baselines sooner rather than later.”).

77. See Shane Frederick & George Loewenstein, *Hedonic Adaptation*, in WELL-BEING, *supra* note 54, at 302, 311–12 (reviewing studies).

78. E.g., Peter Suedfeld et al., *Reactions and Attributes of Prisoners in Solitary Confinement*, 9 CRIM. JUST. & BEHAV. 303 (1982); see Christine Rebman, Comment, *The Eighth Amendment and Solitary Confinement: The Gap in Protection from Psychological Consequences*, 49 DEPAUL L. REV. 567, 575 n.59 (1999) (noting similar studies); see also Ivan Zinger & Cherami Wichmann, *The Psychological Effects of 60 Days in Administrative Segregation*, 43 CANADIAN J. CRIMINOLOGY 47 (2001) (noting that although segregated offenders in a Canadian penitentiary had poorer psychological functioning compared to a control group from the same penitentiary, there was “no evidence” that segregated offenders’ psychological functioning deteriorated over sixty days’ administrative segregation). This literature is controversial. See, e.g., Craig Haney & Mona Lynch, *Regulating Prisons of the Future: A Psychological Analysis of Supermax and Solitary Confinement*, 23 N.Y.U. REV. L. & SOC. CHANGE 477 (1997) (supplying data and arguing to the contrary).

79. See *infra* Part II.A.2.b.

states. Again, errors typically center on the third and fourth types of predictions, the intensity or the duration of emotional experiences.<sup>80</sup>

Such findings recur over a wide range of contexts, from the apparently trivial to the fundamentally salient. People inaccurately predict how much they will enjoy eating a bowl of ice cream or yogurt each day for a week;<sup>81</sup> how disappointed they will be if they do not receive tenure;<sup>82</sup> or, as discussed above, how they will feel upon the death of a spouse.<sup>83</sup> But we are also often wrong about how experiences connected with fundamentally important issues will affect us: issues ranging from birth to death, hunger to dating, personal to professional to political.

Early research into the accuracy of beliefs about future hedonic experiences focused on the superficially trivial: predicting preferences for eating ice cream and low-fat yogurt and for listening to familiar and unfamiliar pieces of music.<sup>84</sup> In one pilot study, subjects ate a serving of ice cream while listening to a piece of unfamiliar music, then reported how much they anticipated enjoying that ice cream and that music upon returning to the lab each day for a week for more.<sup>85</sup> Although subjects were generally accurate at predicting valence—that is, that their enjoyment would decrease over the week’s time—nevertheless, they were generally mistaken when predicting their level of enjoyment over the subsequent week.<sup>86</sup> A larger follow-up study yielded similar, stronger results. Subjects were asked to eat plain, low-fat yogurt while listening to a piece of music that they themselves chose.<sup>87</sup> Although subjects predicted either no change or a decline in enjoyment for the yogurt, in fact, after a sharp drop in enjoyment on the first day after the initial tasting, enjoyment ratings increased over the following week.<sup>88</sup> Overall, the authors came to the “conservative conclusion [that] subjects do not show impressive ability to predict changes in their tastes.”<sup>89</sup>

That “conservative” conclusion has been borne out by research conducted, primarily, over the last decade. College student football fans, for instance, tended to substantially overestimate how happy they would be if their school’s team won a game; they also overestimated how unhappy they would be if the team lost.<sup>90</sup> Two studies of college students participating in a simulated dating game showed that students overestimated how bad they would feel upon not being chosen by a potential dating partner, as well as (to a substantially lesser degree) how good they would feel if they were chosen.<sup>91</sup> Students at two Midwestern universities who were asked how

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80. See Gilbert et al., *supra* note 60, at 116.

81. Daniel Kahneman & Jackie Snell, *Predicting a Changing Taste: Do People Know What They Will Like?*, 5 J. BEHAV. DECISION MAKING 187 (1992).

82. Gilbert et al., *supra* note 40, at 622–24.

83. Caserta & Lund, *supra* note 75, at 38.

84. Kahneman & Snell, *supra* note 81.

85. *Id.* at 190–91.

86. *Id.* at 193.

87. *Id.* at 194.

88. *Id.* at 195.

89. *Id.* at 197.

90. Wilson et al., *supra* note 40, at 829.

91. Timothy D. Wilson et al., *When to Fire: Anticipatory Versus Postevent Reappraisal of Uncontrollable Events*, 30 PERSONALITY & SOC. PSYCHOL. BULL. 340, 344, 349 (2004). The degree to which students overestimated how good they would feel was a smaller effect, reaching statistical significance at the  $p = .11$  level. *Id.* at 344.

happy someone like themselves would be if they lived in California reliably overpredicted that person's overall satisfaction, as compared to self-ratings by students at California schools.<sup>92</sup> California students also believed that living in California would make someone happier than reports actually indicated.<sup>93</sup>

University students are not the only ones subject to such prediction errors. Gilbert and colleagues interviewed tenure-track and tenured university professors, as well as those who experienced tenure decisions.<sup>94</sup> Tenure-track professors (forecasters) were asked to predict how they would feel upon learning they had been granted or denied tenure and at various time periods after that decision. Those interviewees who had already been granted or denied tenure (experiencers) reported their happiness, and responses from the two groups were compared. Forecasters were inaccurate, at least in the short term, about how both favorable and unfavorable tenure decisions made people feel; in both cases recent experiencers felt less strongly than forecasters predicted.<sup>95</sup>

Nor are such errors limited to those in the halls of academia generally. One classic study demonstrated the changing attitudes and emotions of women in childbirth: women who one month before giving birth strongly disapproved of the use of anesthesia during delivery—and who repeated such preferences even during early labor—nevertheless changed those attitudes during active labor and requested anesthesia.<sup>96</sup> This result may surprise some people not at all. But the study's author made an important point: to provide the most appropriate treatment, a physician must, among other things, elicit and evaluate a patient's expressed preferences. Those preferences, however, may not be indicative of the patient's true attitudes, especially toward events she has never experienced.<sup>97</sup>

In a related context, Mellers and colleagues asked women who were about to take a pregnancy test at a clinic to predict their emotional responses upon hearing the test results.<sup>98</sup> Despite making those predictions only ten minutes before hearing the results, women consistently “overestimated the displeasure of unfavorable outcomes. Women who received bad news from their pregnancy tests actually felt better than they expected.”<sup>99</sup> The same researchers also found that dieters who gained or failed to lose weight felt better than they had expected; the authors found this surprising because “most dieters are quite familiar with attempts to lose weight, and therefore should have experience with their actual reactions to unsuccessful attempts.”<sup>100</sup>

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92. Schkade & Kahneman, *supra* note 40, at 343.

93. *Id.*

94. Gilbert et al., *supra* note 40, at 622–24.

95. *Id.* at 624.

96. Jay J.J. Christensen-Szalanski, *Discount Functions and the Measurement of Patients' Values: Women's Decisions During Childbirth*, 4 MED. DECISION MAKING 47 (1984).

97. *Id.* Further complicating the assessment of patients' preferences is the finding that expressed preferences returned to opposing the use of anesthesia when they were interviewed one month after delivery. *Id.* at 53; see also *infra* Part II.B.3 (discussing informed consent).

98. Barbara A. Mellers & A. Peter McGraw, *Anticipated Emotions as Guides to Choice*, 10 CURRENT DIRECTIONS IN PSYCHOL. SCI. 210, 211 (2001).

99. *Id.* at 213. The authors do not there report, however, what test results—positive or negative—were considered by their subjects to be “bad news” and whether that differed among the women responding.

100. *Id.*

Other personally-relevant experiences show similar patterns. Researchers consistently find overpredictions of pain, for instance, by patients about to visit a dentist.<sup>101</sup> More recently, researchers examined the anticipated enjoyment of people about to take various vacations (e.g., a European vacation or a three-week bicycle trip in California).<sup>102</sup> In each of three studies, the authors found similar results—before the vacation and for some time afterward, people’s beliefs about their enjoyment are more positive than their actual experiences.<sup>103</sup> In both the dental and the vacation contexts, people’s perceptions of their emotional responses both before and after an event were more extreme than the actual experience. And as mentioned above, individuals predicting the stress levels of older individuals experiencing the loss of a spouse overpredicted those levels, as compared to self-reports from bereaved spouses.<sup>104</sup>

Finally, people’s predictions about their reactions to personally relevant world events consistently show inaccuracies. Individuals asked to predict their emotional responses to the victory or defeat of a candidate they supported in both gubernatorial<sup>105</sup> and presidential<sup>106</sup> elections overpredicted how bad they would feel if their candidate lost<sup>107</sup> and how good they would feel if their candidate won.<sup>108</sup>

In summary, empirical evidence shows that errors in predicting future emotional experiences are prevalent and consistent. Taking each study alone, of course, it is possible to find methodological or theoretical flaws.<sup>109</sup> And it might be tempting to dismiss some of the studies as trivial based on their subject matter—ice cream, college football games, or simulated dating games. But as the review above demonstrates, each study is a piece of a substantial body of research. Indeed, the literature reviewed is only a fraction of the recent work documenting and extending findings about the phenomenon,<sup>110</sup> a body of research with quite counterintuitive findings. This substantial body of work now demonstrates that what was once a “conservative”

101. Arnoud Arntz et al., *Predictions of Dental Pain: The Fear of Any Expected Evil is Worse Than the Evil Itself*, 28 BEHAV. RES. & THERAPY 29 (1990); see Gerry Kent, *Memory of Dental Pain*, 21 PAIN 187 (1985); cf. Andrew S. Caplin & John V. Leahy, *Psychological Expected Utility and Anticipatory Feelings*, 116 Q.J. ECON. 55, 57 (2001) (citing RICHARD LAZARUS, *PSYCHOLOGICAL STRESS AND THE COPING PROCESS* (1966) for a “survey of experiments demonstrating that certain forms of physical pain, such as pinpricks, do not produce measurable psychological-stress reactions beyond those produced by the mere anticipation of such conditions”).

102. Terence R. Mitchell et al., *Temporal Adjustments in the Evaluation of Events: The “Rosy View,”* 33 J. EXPERIMENTAL SOC. PSYCHOL. 421 (1997).

103. *Id.* at 442.

104. Caserta & Lund, *supra* note 75.

105. Gilbert et al., *supra* note 40, at 624–26.

106. Gilbert et al., *supra* note 40, at 119–20.

107. Gilbert et al., *supra* note 40, at 625–26.

108. Gilbert et al., *supra* note 40, at 119–20.

109. Courts have dismissed some research using just such an approach. *E.g.*, *Lockhart v. McCree*, 476 U.S. 162, 168–73 (1986); *General Elec. Co. v. Joiner*, 522 U.S. 136, 144–45 (1997); see Blumenthal, *supra* note 13, at 2 n.10 (noting Supreme Court’s rejection of research in *Lockhart*); *id.* at 38–39 (noting Court’s rejection of research in *Lockhart* and *Joiner*).

110. See *e.g.*, Wilson & Gilbert, *supra* note 40, at 346; Daniel T. Gilbert & Jane E. J. Ebert, *Decisions and Revisions: The Affective Forecasting of Changeable Outcomes*, 82 J. PERSONALITY & SOC. PSYCHOL. 503, 503 (2002).

conclusion—that people are “not impressive” in their ability to predict changes in their tastes, nor in their ability to predict how they will feel in response to a future event—is conservative no longer. On average, we are poor at predicting important elements of future emotional experiences, whether our own or another’s, even minutes into the future.

### *B. Causes of Prediction Error*

But why? Obviously, when one’s basic happiness or unhappiness is involved, accuracy at predicting one’s emotional reactions to various events would seem of critical importance. There are at least two responses to this question, the phenomenological and the teleological—that is, first, addressing what factors go into erroneous predictions, and second, the possible purpose or function such mispredictions might have.

#### 1. Phenomenology

People err in predicting their future emotional states and their reaction to such states for a number of reasons. The simplest, of course, is a lack of familiarity with the events prompting the emotional experience. Regardless of the number of preliminary visits a woman makes to the maternity ward, breathing exercises she learns, or pregnancy planning books she reads, she only experiences her first labor and delivery once. As Christensen-Szalanski demonstrated, anticipated reactions to that labor can differ markedly from reactions during delivery.<sup>111</sup> Similarly, lottery winners ordinarily hit the jackpot only once. When we imagine ourselves holding a hypothetical winning ticket, we envision the material things we will buy and the donations to worthy causes we will make once we cash the check. We fail, however, to consider the subsequent demands of the sudden enrichment, including taxes or changes in existing relationships.<sup>112</sup> Because we are unfamiliar with the future event that triggers our anticipated reaction, we misconstrue that event and thus bias our prediction.<sup>113</sup>

But this misconstrual can occur even when imagining events with which we *are* more familiar. Recall the overprediction by football fans of their negative emotional reaction to their team’s loss—despite the unfortunate fact that for the teams in question, such losses were not uncommon.<sup>114</sup> This may stem from the application of inaccurate theories about happiness. For instance, researchers asked subjects to plan a

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111. Christensen-Szalanski, *supra* note 96; *cf.* Wilson & Gilbert, *supra* note 40, at 354 (“When asked how she will feel at the birth of her first child, a woman might imagine a trouble-free, natural delivery followed by a quiet period of intimate bonding with the baby. What happens instead is 24 hours of painful labor, a Cesarean section, and intrusive visits from in-laws armed with video cameras.”).

112. Gilbert et al., *supra* note 60, at 117; *cf.* Gavin McCormick, *The Cash That’s Become a Curse: Pleas for Money are Taking a Toll on Lottery King*, THE STAR-LEDGER, Dec. 25, 2003, at 20.

113. Gilbert et al., *supra* note 60, at 117.

114. Wilson et al., *supra* note 40.

menu of snacks to eat when they returned to the lab once a week for three weeks.<sup>115</sup> Planned menus included subjects' favorite snacks, but subjects apparently believed that they would tire of only their favorite and sought to supplement the menu with lesser-liked snacks. They were wrong, and they were thus less pleased than they expected when they returned to eat those snacks.<sup>116</sup>

Such misconstrual also stems from people's general inaccuracies in memories of affective experience, because predictions of reactions to future events are often based on inferences drawn from previous experiences. If we could accurately *recall* emotional reactions to certain events, then our predictions about future reactions to the same or similar events would be more accurate as well. Unfortunately, however, we systematically misremember emotional experiences,<sup>117</sup> distorting our ability to predict future ones. That is, when the memories or theories on which a prediction is based are inaccurate, the prediction will be biased as well.<sup>118</sup>

Importantly, our predictions about future events are also biased by failures to take into account factors other than the direct and immediate event. This happens in two ways; we neglect broader aspects of the event itself, but we also neglect aspects of both ourselves and the outside world that, over time, tend to ameliorate the intensity and duration of emotional reactions. Both phenomena fall under the notion of a "focalism" effect<sup>119</sup> or a "focusing illusion."<sup>120</sup>

First, as a narrow matter, when asked (by ourselves or others) to imagine a future event and predict our enjoyment, distaste, or other emotional reaction, we tend to visualize *specific* examples of that event, forgetting that the event is, most likely, an example of a broader class.<sup>121</sup> Research suggests that

when [people are] asked to make predictions about future events, they tend to imagine a particular event while making little provision for the possibility that the particular event they are imagining may not necessarily be the particular event they will be experiencing. When our spouse asks us to attend "a party" on Friday night, we instantly imagine a particular kind of party (e.g., a cocktail party in the penthouse of a downtown hotel with waiters in black ties carrying silver trays of hors d'oeuvres past a slightly bored harpist) and then estimate our reaction to that imagined event (e.g., yawn). We generally fail to consider how many different

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115. Daniel Read & George Loewenstein, *Diversification Bias: Explaining the Discrepancy in Variety Seeking Between Combined and Separated Choices*, 1 J. EXPERIMENTAL PSYCHOL. APPLIED 34 (1995).

116. *Id.*

117. Sven-Ake Christianson & Martin A. Safer, *Emotional Events and Emotions in Autobiographical Memories*, in REMEMBERING OUR PAST: STUDIES IN AUTOBIOGRAPHICAL MEMORY 218, 235 (David C. Rubin ed., 1996) ("There are apparently no published studies in which a group of subjects has accurately recalled the intensity and/or frequency of their previously recorded emotions."); Daniel Kahneman et al., *When More Pain is Preferred to Less: Adding a Better End*, 4 PSYCHOL. SCI. 401 (1993) (documenting subjects' tendency to mistakenly remember a more painful experience as preferable to a less painful one).

118. See Gilbert et al., *supra* note 40, at 618; Gilbert & Wilson, *supra* note 63, at 181; Wilson & Gilbert, *supra* note 40, at 359.

119. Wilson et al., *supra* note 40, at 822.

120. Schkade & Kahneman, *supra* note 40, at 340.

121. Gilbert & Wilson, *supra* note 63, at 180.

members constitute the class (e.g., birthday parties, orgies, wakes) and how different our reactions would be to each. So we tell our spouse that we would rather skip the party, our spouse naturally drags us along anyhow, and we have a truly marvelous time. Why? Because the party involves cheap beer and hula hoops rather than classical music and seaweed crackers . . . . [W]e like what we previously did not want because the event we experienced (and liked) was not the event we imagined (and wanted to avoid).<sup>122</sup>

Second, more broadly, we fail to consider the multifold events that will occur subsequent to the event we are predicting, events that will at the very least distract us from ruminating about the trigger event and, at best, will assuage any negative feelings we have resulting from it (of course, such events may reduce positive emotions as well).<sup>123</sup> We should recognize—but apparently we do not—that events do not take place in a vacuum; despite traumatic or joyous experiences, life demands that we involve ourselves in, and attend to, other considerations. At times, when predictors' attention is drawn to such surrounding events—for instance, by making a list of activities they plan to do during the day after the predicted event—prediction errors are attenuated.<sup>124</sup> Usually, though, we fail to consider such events in predicting our reactions, focusing instead on the trigger and predicting that the resulting emotional reaction will be stable. That is, importantly, errors may stem from “evaluating an entire extended outcome by evaluating the *transition* to it. For example, the mistake that most people make in predicting the well-being of paraplegics may reflect their use of the tragic event of *becoming* a paraplegic as a proxy in evaluating the long-term state of *being* a paraplegic.”<sup>125</sup> These factors help explain, for instance, the overprediction of stress and depression of older bereaved spouses described above; those making predictions do not take into account the positive effect that social support networks,<sup>126</sup> remarriage,<sup>127</sup> various coping strategies,<sup>128</sup> or learning new skills<sup>129</sup> might have.

Not only do people fail to consider outside events that either distract them from, or ameliorate, their emotional experience, but people also fail to consider the likelihood

122. *Id.* (citations omitted).

123. Gilbert et al., *supra* note 60, at 122–23.

124. *E.g.*, Wilson et al., *supra* note 40.

125. Daniel Kahneman et al., *Back to Bentham? Explorations of Experienced Utility*, 112 Q.J. ECON. 375, 396 (1997) (first emphasis added).

126. *E.g.*, Alicia Duran et al., *Social Support, Perceived Stress, and Depression Following the Death of a Spouse in Later Life*, in OLDER BEREAVED SPOUSES: RESEARCH WITH PRACTICAL APPLICATIONS 69 (Dale A. Lund ed., 1989).

127. Danielle S. Schneider et al., *Dating and Remarriage over the First Two Years of Widowhood*, 8 ANNALS OF CLINICAL PSYCHIATRY 51 (1996) (suggesting that dating and remarriage are common and appear to be highly adaptive behaviors among the recently bereaved); Margaret Gentry & Arthur D. Shulman, *Remarriage as a Coping Response for Widowhood*, 3 PSYCHOL. & AGING 191 (1988) (suggesting that remarried widows reported fewer concerns than they had after spouses' deaths).

128. *E.g.*, Kathleen A. Gass, *Appraisal, Coping, and Resources: Markers Associated with the Health of Aged Widows and Widowers*, in OLDER BEREAVED SPOUSES: RESEARCH WITH PRACTICAL APPLICATIONS 79, 91 (Dale A. Lund ed., 1989).

129. *E.g.*, Dale A. Lund et al., *Competencies, Tasks of Daily Living, and Adjustments to Spousal Bereavement in Later Life*, in OLDER BEREAVED SPOUSES: RESEARCH WITH PRACTICAL APPLICATIONS 135, 150 (Dale A. Lund ed., 1989).

that they will rationalize or cope with negative events.<sup>130</sup> The tendency to rationalize or transform such events has long been documented, under various guises,<sup>131</sup> the important point is that people seem to possess—but not remember that they do—what some have called a “*psychological immune system*—a system of cognitive mechanisms that transforms our mental representation of negative events so that they give rise to more positive emotions.”<sup>132</sup>

In summary, by failing to take into account the workings of our “psychological immune system,” by neglecting events surrounding that which we are predicting about, by misconstruing the predicted event, and by focusing too much on specific factors of those events, we tend to overestimate the intensity and the duration of future negative emotions.<sup>133</sup> As discussed below, such errors have consequences for aspects of the legal system.

## 2. Teleology

But there is an additional, more nebulous issue of *why* individuals are susceptible to these prediction errors. That is, are such inaccuracies functional in some adaptive sense?<sup>134</sup> Scholars debate the adaptive nature and significance of emotions generally,<sup>135</sup> whether it is adaptive *not* to be wholly “in touch” with one’s emotions—to the extent that predictive inaccuracies occur—is similarly unclear.<sup>136</sup>

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130. Gilbert et al., *supra* note 60, at 124.

131. *E.g.*, Gilbert et al., *supra* note 40, at 619 (“Ego defense, rationalization, dissonance reduction, motivated reasoning, positive illusions, self-serving attribution, self-deception, self-enhancement, self-affirmation, and self-justification are just some of the terms that psychologists have used to describe the various strategies, mechanisms, tactics, and maneuvers of the psychological immune system.”).

132. Gilbert et al., *supra* note 60, at 124 (emphasis in original). In one sense it is unsurprising that we neglect such tendencies, as a *conscious* effort to mitigate negative emotions reduces the likelihood of that effort being successful. *E.g.*, Gilbert et al., *supra* note 40, at 634 (“[A]cute awareness of one’s immune system may have the paradoxical effect of suppressing it.”).

133. Recent evidence suggests that there may also be genetic factors that reduce the impact of, or perhaps individuals’ susceptibility to, negative events. Avshalom Caspi et al., *Influence of Life Stress on Depression: Moderation by a Polymorphism in the 5-HTT Gene*, 301 SCIENCE 386 (2003).

134. *See* Wilson & Gilbert, *supra* note 40, at 399–401 (discussing the functional aspects of prediction errors). Commentators are increasingly noting the relevance of evolutionary theory to legal topics. *See* Bailey Kuklin, *Evolution, Politics and Law*, 38 VAL. U. L. REV. 1129 (2004); Erin Ann O’Hara, *Apology and Thick Trust: What Spouse Abusers and Negligent Doctors Might Have in Common*, 79 CHI-KENT L. REV. 1055 (2004); Owen D. Jones, *Evolutionary Analysis in Law: Some Objections Considered*, 67 BROOK. L. REV. 207 (2001); Jones, *supra* note 27; Owen D. Jones, *Evolutionary Analysis in Law: An Introduction and Application to Child Abuse*, 75 N.C. L. REV. 1117 (1997).

135. *See, e.g.*, Toni M. Massaro, *Show (Some) Emotions*, in THE PASSIONS OF LAW 80, 83 & n.21 (Susan A. Bandes ed., 1999) (citing sources). For a good discussion of the adaptive nature of integrated emotion and cognition, see Gray, *supra* note 38.

136. *E.g.*, Gilbert et al., *supra* note 60, at 137 (noting issue of adaptive utility of such errors).

For instance, prediction errors such as the over estimation of future negative emotion may be functional because they prompt certain adaptive short-term behavior. Predicting a severe emotional reaction to weight gain or to poor performance on a test might lead a person to avoid the fattening snack food or the late-night party that might lead to that negative experience, even where postevent emotion might not have been as severe as predicted. Similarly, because of the pleasure derived from anticipating positive emotional experiences, overpredicting the enjoyment of a future positive event may yield greater utility before the event occurs.<sup>137</sup>

However, as Wilson and Gilbert point out, short-term behavior is less likely to be influenced when the future event is one over which the individual has little or no control. Just as overpredicting enjoyment creates “unwarranted” utility, overpredicting a negative emotional experience that results from an uncontrollable event can cause unwarranted anxiety. Other than the possibility of less displeasure after the event, it is not clear that such overprediction or exaggeration is functional.<sup>138</sup> And even in the situation of an exam, a diet, or some other controllable event, it would seem more beneficial for people to have accurate ideas of the pleasure or displeasure to be derived. Further, as discussed in Part II.A below, accurate knowledge of what will make someone happy (of one’s own endogenous preferences) is not only essential for leading a happy life, but is fundamental to theories of what it means to do so, and of what role the state should have in encouraging (or even forcing) people to do what is good for them.

Few data exist that address the adaptive significance of such affective prediction errors.<sup>139</sup> Thus, until the relevant research is conducted, the teleological “why” must remain “an open question.”<sup>140</sup>

### C. Caveats

A substantial body of empirical research now demonstrates people’s tendency to inaccurately predict future affective experiences. As with many bodies of research, however, there are caveats in its application, and there is further research that should be conducted. Although none of the caveats I discuss below is fatal to the practical application of affective forecasting research, each poses an issue that may need to be addressed as calls for such application increase.

#### 1. Self-Report Biases

One criticism sometimes levied against social science research in the laboratory is its dependence on subjects’ self-reports for data.<sup>141</sup> Such criticism is likely less tenable

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137. Wilson & Gilbert, *supra* note 40, at 399. Of course, postevent disappointment may balance or even outweigh that enjoyment.

138. *See id.* at 400.

139. *See id.*

140. *Id.* (noting that the adaptive utility of such errors is “an open question”); Gilbert et al., *supra* note 60, at 137 (noting intuition that improving accuracy would be beneficial, but also noting possibility that “when the errors we study in isolation are embedded in the complex web of ordinary events, they may serve some larger purpose of which we are unaware”).

in the context of affective forecasting research, however, even though many emotion studies (including ones of affective forecasting) make use of self-report data. This is so for both logical and methodological reasons. First, “social desirability responses”<sup>142</sup> or other simulated positive responses are probably absent in these studies, as it is unclear what social utility might be derived from a subject’s admission that she feels less positive than she had predicted—that she was wrong about her own emotions.<sup>143</sup> Second, more objectively, self-reports of general emotions are found to have good statistical reliability and correlate well with more specific or multi-item inventories.<sup>144</sup>

Third, in an innovative methodological twist to one of the affective forecasting studies (the simulated dating game), Wilson and colleagues included a behavioral check on subjects’ self-reported data.<sup>145</sup> Again, forecasters were asked to predict how they would feel if they were not chosen by the hypothetical dating partner. But they were also told of a (fictitious) pilot study organized by the University’s “Experimental Review Committee” designed “to ensure that participants left psychology studies in the same frame of mind as when they first arrived.”<sup>146</sup> Forecasters were asked to select the dosage of a mood-enhancing drug they would take if they found out that they were not chosen for a date; similarly, “experiencers” were given the opportunity to select a drug dosage after they learned of the potential partner’s decision.<sup>147</sup> Consistent with the self-report data, those subjects asked to forecast the dosage they would take upon rejection chose a significantly higher dosage than those who actually experienced a rejection.<sup>148</sup> This behavioral measure corroborated psychological responses, lending further credence to the self-report data.

## 2. Predicting One’s Own Versus Others’ Experiences

Many, but not all, of the numerous studies demonstrating errors in affective forecasting rely on “between-subjects” designs (comparing the predictions of one group of subjects to the reported experiences of another group) rather than “within-subjects” designs (comparing the predictions and experiences of the same group of

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141. Margaret S. Stockdale & Maureen O’Connor, *The Relationship Between Prior Sexual Abuse and Reactions to Sexual Harassment*, 8 PSYCHOL. PUB. POL’Y & L. 64, 80 (2002) (noting concerns over self-report biases in empirical research); David Hemenway et al., *Firearms and Community Feelings of Safety*, 86 J. CRIM. L. & CRIMINOLOGY 121, 123–24 (1995) (“[S]elf-report data may be subject to inaccuracies because of social desirability responses, recall bias, intentional distortions or noncandid responses.”); Linda Hamilton Krieger, *The Content of Our Categories: A Cognitive Bias Approach to Discrimination and Equal Employment Opportunity*, 47 STAN. L. REV. 1161, 1214 & n.241 (1995) (citing experiments acknowledging and addressing issue of self-report biases).

142. Hemenway et al., *supra* note 141, at 123.

143. *E.g.*, Wilson & Gilbert, *supra* note 40, at 352.

144. *See id.*

145. *See* Wilson et al., *supra* note 91, at 343.

146. *Id.* at 348. In fact, no such study existed. *Id.*

147. The “drug” was in fact a vitamin C pill, and the researchers did not actually allow any participant to take a pill. *Id.* at 349.

148. *Id.*

people).<sup>149</sup> To this extent, researchers were arguably comparing different things, potentially casting doubt on the studies' results.<sup>150</sup>

There are a number of responses to this criticism, however. First, of course, not all studies are designed as between-subjects. Some do request the same subjects to both predict and react to particular events,<sup>151</sup> and these studies' findings are wholly consistent with the results of the between-subjects studies. Second, even in between-subjects studies, "predictors" and "experiencers" are randomly assigned to each group, avoiding potential confounds associated with membership in one condition or the other. Third, not only are the results of between- and within-subject studies consistent, but the data from between-subject studies themselves are internally consistent; that is, the studies all demonstrate people's mispredictions of future emotional states.<sup>152</sup> Fourth, as a methodological matter, it is possible that forecasts made shortly before experiences may in fact inappropriately "contaminate" either subjects' actual experience or their report of that experience.<sup>153</sup> Some data suggest that this is not such a danger, such as Mellers' and colleagues' findings that women mispredicted their emotional reactions even ten minutes before finding out results of a pregnancy test.<sup>154</sup> In any event, a between-subject design avoids such potential contamination.

Finally, given other human biases it may be that predicting another person's emotional experience is in fact similar to predicting one's own. In other contexts, such as making judgments about the thoughts, behaviors, or attitudes of others, people can be subject to a "false consensus effect," in which they over estimate the concordance of others' beliefs with their own.<sup>155</sup> To that extent, ostensibly forecasting about someone else may in fact be more similar than expected to forecasting about oneself. The forecaster's thought, perhaps, is something along the lines of, "The person

149. See Wilson & Gilbert, *supra* note 40, at 363–64.

150. Frederick & Loewenstein, *supra* note 77, at 310 (suggesting that between-subjects or "[c]ross-sectional . . . studies suffer from the difficulty of matching the exposed and nonexposed subgroups") (emphasis in original).

151. *E.g.*, Wilson et al., *supra* note 40, at 826–29 (Study 3); Kahneman & Snell, *supra* note 81.

152. Of course, it is conceivable that the studies all turn out similarly because they all have the same "defect" of between-subject design. It seems more likely, however, that any putative methodological confounds introduced by such designs would lead to more divergent results across the large body of research that has been conducted.

153. *Cf.* Wilson & Gilbert, *supra* note 40, at 364.

154. See Mellers & McGraw, *supra* note 98, at 211, 213.

155. Donald C. Langevoort, *Ego, Human Behavior, and Law*, 81 VA. L. REV. 853, 859 (1995) (The false consensus effect is "the belief that others share one's own attitudes and behaviors to a greater extent than they really do."); *e.g.*, Leandre R. Fabrigar & Jon A. Krasnick, *Attitude Importance and the False Consensus Effect*, 21 PERSONALITY & SOC. PSYCHOL. BULL. 468 (1995) (demonstrating effect in context of attitudes and identifying potential mechanisms for the effect); Sandy Wolfson, *Students' Estimates of the Prevalence of Drug Use: Evidence for a False-Consensus Effect*, 14 PSYCHOL. ADDICTIVE BEHAV. 295 (2000) (noting overestimates by college-age drug users of degree of other students' drug use); see generally Mark D. Alicke & Edward Largo, *The Role of the Self in the False Consensus Effect*, 31 J. EXPERIMENTAL SOC. PSYCHOL. 28, 28–29 (1995) (discussing background of false consensus effect); Gary Marks & Norman Miller, *Ten Years of Research on the False Consensus Effect: An Empirical and Theoretical Review*, 102 PSYCHOL. BULL. 72 (1987).

experiencing this emotion would feel as I think I would, because that is how it makes sense to feel.”<sup>156</sup> Recent evidence suggests that this might be the case: in an investigation of the endowment effect, researchers found that study participants underestimated the magnitude of the effect.<sup>157</sup> In a series of experiments they demonstrated that such errors were due to “egocentric empathy gaps,” in which participants’ perceptions of how others valued the property to be bought or sold was driven by their own valuation.<sup>158</sup>

In sum, although the between-subject methodology, when used, may provide a potential source of criticism for the affective forecasting research, the criticism is likely not serious and certainly not fatal.

### 3. Individual Differences

A final interesting area to be developed in the context of affective forecasting research is that of *individual differences*.<sup>159</sup> That is, research demonstrates that, overall, people inaccurately predict future emotional states, but differences in forecasting accuracy may exist among identifiable groups (e.g., men vs. women, older people vs. younger, more vs. less intelligent).

Indeed, individual differences may exist in a number of contexts. First, there may be differences in susceptibility to the stress of negative events in the first place, and in the ability to cope with such events after they occur. As alluded to earlier, there are apparently genetic factors that predispose individuals to such stress as well.<sup>160</sup> Second,

156. Cf. Sabini et al., *supra* note 40, at 228 (“[O]ur participants did use themselves as a guide to others’ emotions; indeed they overused themselves.”). This relates to commentators’ notion of “multiple selves”—that is, although an individual’s prediction at Time<sub>1</sub> of her emotions at Time<sub>2</sub> are, intuitively, by and for the same person, there is also a sense in which she is a qualitatively different person at Time<sub>2</sub>, and in that sense she is predicting about another person. For comments about this sense of different selves, see, for example, Carl H. Coleman, *Procreative Liberty and Contemporaneous Choice: An Inalienable Rights Approach to Frozen Embryo Disputes*, 84 MINN. L. REV. 55, 92 (1999) (raising issue of “which phase of an individual’s evolving personality has priority when her wishes [at Time<sub>1</sub>] differ from those [at Time<sub>2</sub>]”) (emphasis in original); Kahneman, *supra* note 55, at 120 (“The history of an individual through time can be described as a succession of separate selves, which may have incompatible preferences . . . Which of these selves should be granted authority . . .?”); Kronman, *supra* note 30, at 781 (discussing individuals’ attempts “to empathize with the selves we once were”).

157. Leaf D. Van Boven et al., *Egocentric Empathy Gaps Between Owners and Buyers: Misperceptions of the Endowment Effect*, 79 J. PERSONALITY & SOC. PSYCHOL. 66, 68, 74 (2000). The endowment effect refers to the “established [concept] that owners value things more than buyers do simply because they own them.” *Id.* at 66 (citing Daniel Kahneman et al., *Experimental Tests of the Endowment Effect and the Coase Theorem*, 98 J. POL. ECON. 1325 (1990)).

158. *Id.* at 66.

159. See, e.g., Blumenthal, *supra* note 28, at 87–88 (noting lack of research on individual differences in affective forecasting); Neal Feigenson, “Another Thing Needful”: *Exploring Emotions in Law*, 18 CONST. COMM. 445, 460 (2001) (noting the importance of examining individual differences in the phenomenology of emotion) (reviewing THE PASSIONS OF LAW, *supra* note 31).

160. See Caspi et al., *supra* note 133, at 386.

a moment's reflection suggests that people differ in the actual experience of emotion, and substantial evidence supports that intuition.<sup>161</sup> Third, there seem to be identifiable differences across some groups in forecasting accuracy: some preliminary data seem to show that older individuals know that a return to an emotional baseline occurs relatively quickly.<sup>162</sup> Other recent data suggest that forecasting errors are stronger in men than in women.<sup>163</sup> Finally, individual differences in the construct of *emotional intelligence*<sup>164</sup> might be relevant. Some data indicate that people reporting higher emotional intelligence (though not necessarily people *scoring* higher on emotional intelligence inventories) were more likely to engage in helpful coping behaviors in response to stressors.<sup>165</sup> To the extent that emotional intelligence reflects the accurate identification, processing, and expression of people's emotions, those more "emotionally intelligent" may be more accurate at predicting such emotional experiences.

Tension between applying aggregate and individual data recurs in the legal system, so in a sense this issue is nothing new. Moreover, it is not immediately obvious what the practical implications of such individual differences might be. I return briefly to this question in Part II.C.1 *infra*.

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161. Notable in this area is the work of Carol Gohm and colleagues. Carol L. Gohm, *Mood Regulation and Emotional Intelligence: Individual Differences*, 84 J. PERSONALITY & SOC. PSYCHOL. 594 (2003) (identifying a "type" of emotional experiencer who was more reactive to emotional experiences than others); Carol L. Gohm & Gerald L. Clore, *Affect as Information: An Individual-Differences Approach*, in THE WISDOM IN FEELING, *supra* note 28, at 89 (2002) [hereinafter *Affect as Information*]; Carol L. Gohm & Gerald L. Clore, *Four Latent Traits of Emotional Experience and Their Involvement in Well-Being, Coping, and Attributional Style*, 16 COGNITION & EMOTION 495 (2002) (identifying four traits distinguishing individuals' experience of emotions); Carol L. Gohm & Gerald L. Clore, *Individual Differences in Emotional Experience: Mapping Available Scales to Processes*, 26 PERSONALITY & SOC. PSYCHOL. BULL. 679 (2000) (identifying similar structure of individual differences in emotional experience); *see also, e.g.*, Lisa Feldman Barrett, *Discrete Emotions or Dimensions? The Role of Valence Focus and Arousal Focus*, 12 COGNITION & EMOTION 579 (1998); Susan Nolen-Hoeksema & Cheryl L. Rusting, *Gender Differences in Well-Being*, in WELL-BEING, *supra* note 54, at 330; Kathy A. Winter & Nicholas A. Kuiper, *Individual Differences in the Experience of Emotions*, 17 CLINICAL PSYCHOL. REV. 791 (1997) (examining the relationship between personality characteristics and individuals' experience of emotions). *Cf.* Rachel F. Moran, *Fear Unbound: A Reply to Professor Sunstein*, 42 WASHBURN L.J. 1, 10 (2002) ("Individual differences in the expression of feelings like fear and distress can be observed at an early age and remain fairly constant throughout a person's lifetime.") (citing Jerome Kagan & Nancy Snidman, *Temperamental Factors in Human Development*, 46 AM. PSYCHOL. 856 (1991)).

162. *See* Wilson & Gilbert, *supra* note 40, at 397-98.

163. Wilson et al., *supra* note 91, at 349.

164. Peter Salovey & John D. Mayer, *Emotional Intelligence*, 9 IMAGINATION COGNITION & PERSONALITY 185 (1990); *see also* DANIEL GOLEMAN, EMOTIONAL INTELLIGENCE (1995).

165. Gohm & Clore, *Affect as Information*, *supra* note 161, at 100.

## II. IMPLICATIONS OF INACCURATE AFFECTIVE FORECASTING FOR THE LEGAL SYSTEM

In the Introduction, I suggested somewhat broadly that an inability to accurately predict future feelings had important ramifications for policy debates and for certain aspects of the legal system. I address the broader policy questions in Part III, turning here to specific aspects of the legal system that may be affected by a violation of the standard assumptions that people can forecast well how they, or others, will feel. Parts II.A and II.B describe some of these aspects, both in and out of the courtroom; in Part II.C, I nevertheless note certain caveats in the immediate and wholesale application of the affective forecasting research to these areas.

### *A. Applications Inside the Courtroom*

#### 1. Civil Damage Awards

##### a. Implications for Civil Damage Awards

An inability to accurately predict future emotional states implicates a fundamental aspect of the civil jury system—the assessment of damage awards for noneconomic losses.<sup>166</sup> Such losses typically encompass various categories of “emotional distress,”<sup>167</sup> defined most broadly as “any highly unpleasant mental reaction such as extreme grief, shame, humiliation, embarrassment, anger, disappointment, worry, and nausea,”<sup>168</sup> but more generally seen as including “pain and suffering,”<sup>169</sup> “mental anguish,”<sup>170</sup> or “loss of [or “lost”] enjoyment of life.”<sup>171</sup>

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166. See RESTATEMENT (SECOND) OF TORTS: DAMAGES § 910 (1979) (“One injured by the tort of another is entitled to recover damages from the other for all harm, past, present and prospective, legally caused by the tort.”).

167. *Id.* § 905(b) (“Compensatory damages that may be awarded without proof of pecuniary loss include compensation . . . for emotional distress.”).

168. *Lottinger v. Shell Oil Co.*, 143 F. Supp. 2d 743, 779 (S.D. Tex. 2001); *Capelouto v. Kaiser Found. Hosps.*, 500 P.2d 880, 883 (Cal. 1972) (including, under the “unitary concept” of pain and suffering, “fright, nervousness, grief, anxiety, worry, mortification, shock, humiliation, indignity, embarrassment, apprehension, terror or ordeal”); see 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, 781 (1995) (noting various elements of “pain and suffering” damages, including “intangible[s] such as fright, nervousness, grief, anxiety, or indignity”).

169. *E.g.*, BLACK’S LAW DICTIONARY 1109 (6th ed. 1990) (defining term as including “mental and emotional trauma which are recoverable as elements of damage in torts”).

170. *E.g.*, *McClain v. Univ. of Mich. Bd. of Regents*, 665 N.W.2d 484, 488 (Mich. Ct. App. 2003) (“Emotional damages are not necessarily limited to ‘emotional distress,’ but may also encompass mental anguish.”).

171. *E.g.*, *Kansas City S. Ry. v. Johnson*, 798 So.2d 374, 381 (Miss. 2001); *Bennett v. Lembo*, 761 A.2d 494, 497 (N.H. 2000); *McDougald v. Garber*, 536 N.E.2d 372 (N.Y. 1989); Susan Poser et al., *Measuring Damages for Lost Enjoyment of Life: The View from the Bench and the Jury Box*, 27 LAW & HUM. BEHAV. 53, 54 (2003) (describing “loss of enjoyment of life” or “hedonic damages”); W. Kip Viscusi, *Pain and Suffering: Damages in Search of a Sounder*

Of course, damage awards for such losses are designed to compensate the victim of a tortious injury for the harm experienced, with the goal of placing her in a position equivalent to that before the tort occurred.<sup>172</sup> Although this functions retrospectively, prospective damages may also be awarded in order to compensate a tort victim for the distress she is reasonably anticipated to suffer in the future.<sup>173</sup>

Research documenting forecasting errors, however, suggests a number of problems in the determination of such prospective damages for emotional distress.<sup>174</sup> Most broadly, if the basic goal of granting such awards is to compensate for a victim's future suffering, then that suffering needs to be determined accurately. If jurors consistently overpredict the degree of emotional distress a victim will suffer, damage awards will be inflated and victims will be overcompensated. Moreover, defendants may be overdeterred, as the degree of caution that will become necessary to balance compensation will rise to an inefficient level.

In fact, the Second Restatement of Torts explicitly focuses on those aspects of emotional distress that, according to the affective forecasting research, are most vulnerable to predictive mistakes. Under the Restatement, the duration of the emotional injury and its intensity are explicitly to be considered in determining the damage award.<sup>175</sup> As outlined above, these are precisely the factors (as opposed to the valence

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*Rationale*, 1 MICH. L. & POL'Y REV. 141, 142 (1996) (including as an aspect of pain and suffering awards, "the enduring loss of enjoyment of life by the accident victim who is denied the pleasures of normal personal and social activities") (quoting 2 AMERICAN LAW INSTITUTE, REPORTER'S STUDY, ENTERPRISE RESPONSIBILITY FOR PERSONAL INJURY 199-200 (1991)).

172. RESTATEMENT (SECOND) OF TORTS: DAMAGES § 901 cmt. a (1979); *id.* § 903.

173. *See id.* § 910. Such prospective damages should be reasonably certain and not speculative. RONALD W. EADES, JURY INSTRUCTIONS ON DAMAGES IN TORT ACTIONS § 1.23 (future damage must be "reasonably certain to occur"); *Pribil v. Koinzan*, 665 N.W.2d 567, 573-74 (Neb. 2003) ("[T]he jury is to award such damages only where the evidence shows that the future earnings or pain and suffering for which recovery is sought are 'reasonably certain' to occur."). At least one state allows compensation for a future (physical) injury that is *not* reasonably certain to occur because of the increased risk of future injury. *See Dillon v. Evanston Hosp.*, 771 N.E.2d 357 (Ill. 2002). The court apparently suggested that the compensation should be proportional to the injury's likelihood. *Id.* at 370. *See generally* Kira Elert, Note, *Dillon v. Evanston Hospital: Illinois Adopts the New Increased Risk Doctrine Governing Recovery for Future Injury*, 34 LOY. U. CHI. L.J. 685 (2003).

174. Of course, there are debates over many more aspects of the civil jury system, most of which are outside the scope of this Article. For references, see, for example, EDIE GREENE & BRIAN H. BORNSTEIN, DETERMINING DAMAGES: THE PSYCHOLOGY OF JURY AWARDS (2003) (reviewing issues concerning jury comprehension of instructions); VALERIE P. HANS, BUSINESS ON TRIAL: THE CIVIL JURY AND CORPORATE RESPONSIBILITY (2000) (addressing debate over whether juries are biased against corporations); Valerie P. Hans & Stephanie L. Albertson, *Empirical Research and Civil Jury Reform*, 78 NOTRE DAME L. REV. 1497 (2003) (reviewing research relating to jury reform generally); Jennifer K. Robbennolt & Christina A. Studebaker, *Anchoring in the Courtroom: The Effects of Caps on Punitive Damages*, 23 LAW & HUM. BEHAV. 353 (1999) (discussing possibility of caps on juries' punitive damage awards); Franklin D. Strier, *The Educated Jury: A Proposal for Complex Litigation*, 47 DEPAUL L. REV. 49, 50 n.2 (1997) (citing articles on appropriateness of ensuring juries that can comprehend "complex" litigation).

175. RESTATEMENT (SECOND) OF TORTS: DAMAGES § 905 cmt. i (1979) ("The length of time during which pain or other harm to the feelings has been or probably will be experienced

of an experience, for instance) that most people have the most difficulty predicting.<sup>176</sup> Basing damage awards directly on the factors that are so difficult for people may be quite problematic.

These factors are important not only in theory, but also in practice. Experimental evidence suggests that the perceived amount and duration of a victim's mental suffering are indeed primary factors in determining mock jurors' damage awards.<sup>177</sup> In reviewing this research, Professors Greene and Bornstein have stated that "the greater the plaintiff's disability and mental suffering, the larger the plaintiff's pain and suffering award."<sup>178</sup> They continue, "It follows, then, that injuries that are very painful but that do not produce long-lasting suffering or disability—such as some acute fractures or burns—should lead to relatively low compensation awards."<sup>179</sup> Although it is not clear whether their "should" is normative or descriptive, Greene and Bornstein implicitly identified the crux of the problem: to the extent that damage awards should compensate for suffering, and should thus correlate with that suffering, injuries that result in less suffering should as a normative matter be compensated at a rate lower than injuries causing more harm. But where predictions about that harm are based on jurors' perceptions of how severe and for how long a victim will suffer as a result of that harm, forecasting errors may bias those predictions. The resulting overestimate of harm may in turn yield excessive awards.

This may especially be so for so-called "hedonic damages," which focus on compensation for the "loss of life's pleasure[s]."<sup>180</sup> Such pleasures include the "daily life activities that are common to most people . . . [such as] going on a first date, reading, debating politics, the sense of taste, recreational activities, and family activities."<sup>181</sup> The goal of such damages is to compensate the tort victim for "the deprivation of certain pleasurable sensations and enjoyment through impairment or destruction of the capacity to engage in activities formerly enjoyed . . . ."<sup>182</sup> Though such losses may be "beyond dispute"<sup>183</sup>—it would be hard to question the idea that someone who once enjoyed hunting, fishing, or yard work, but suffered brain injury and a cracked pelvis and has a permanently damaged wrist and crooked finger<sup>184</sup> can no longer derive as much enjoyment from such activities—nevertheless, the affective forecasting literature suggests that it is possible to adapt even to such traumatic circumstances. Although such a tort victim indisputably suffers an inability to enjoy

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and the intensity of the distress are factors to be considered in assessing the amount of damages."); *Bean v. Best*, 93 N.W.2d 403, 408 (S.D. 1958) (quoting Restatement approvingly).

176. *See supra* notes 65–133 and accompanying text.

177. *E.g.*, Roselle L. Wissler et al., *Explaining "Pain and Suffering" Awards: The Role of Injury Characteristics and Fault Attributions*, 21 *LAW & HUM. BEHAV.* 181, 189–90 (1997).

178. GREENE & BORNSTEIN, *supra* note 174, at 113.

179. *Id.*

180. Geistfeld, *supra* note 168, at 782; EADES, *supra* note 173, § 6.06[1] ("In considering your award of damages, if you have occasion to do so, it is proper for you to consider any evidence tending to show that, as a result of the occurrence of the subject of this action, the plaintiff's capacity to enjoy life has been diminished."). *See sources cited supra* note 171.

181. *Kansas City S. Ry. v. Johnson*, 798 So.2d 374, 381 (Miss. 2001).

182. *Bennett v. Lembo*, 761 A.2d 494, 498 (N.H. 2000) (quoting *Fantozzi v. Sandusky Cement Prods.*, 597 N.E.2d 474 (Ohio 1992)).

183. *Id.*

184. *Johnson*, 798 So.2d at 381.

life the way he once did, and therefore indisputably deserves some compensatory award, research such as the paraplegic study at least makes us think twice about the extent of that award.<sup>185</sup>

The affective forecasting literature highlights other tensions in trying to determine the appropriate levels of pain and suffering awards. For instance, some courts hold that if the fear or anxiety underlying a victim's mental anguish is not based on something real (i.e., if there is no "real" reason for the anguish) then recovery may be disallowed.<sup>186</sup> Such cases often involve objectively ascertainable circumstances. In *Western Union Telegraph Co. v. McKenzie*,<sup>187</sup> for example, a telegraph company negligently failed to deliver a telegram from a husband responding to his wife who had just given birth, saying that he was on his way home from out-of-state. Because as far as she knew her husband had failed to respond, the wife experienced severe emotional distress, worrying that he had been harmed on his way home. However, the court found that the husband was never objectively in danger, even though his wife worried about him; thus, there was no objective cause for anguish and thus no recovery.<sup>188</sup> Similarly, in *K.A.C. v. Benson*, patients whose doctor conducted pelvic examinations despite being HIV-positive and having open lesions on his arms could not recover for negligent infliction of emotional distress upon learning the doctor's condition.<sup>189</sup> The court held that plaintiffs had to demonstrate actual exposure to HIV to recover. It reasoned that because the risk of transmission was remote (according to Center for Disease Control estimates), no "real" exposure occurred and thus there was no injury.<sup>190</sup> The patients' "real" distress became irrelevant, as there was no "real" danger.

These cases address whether the anguish sprang from real conditions, but not whether there was real anguish.<sup>191</sup> Analogously, although there is an effort to evaluate future pain at the time of trial, the affective forecasting literature suggests that that future pain may be overestimated and thus not be based on "real" conditions, because those conditions and circumstances will change.

The problem may be even worse. Courts and commentators fully recognize the speculative nature of assessing even reasonably certain intangible damages.<sup>192</sup>

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185. See Brickman et al., *supra* note 65, at 921.

186. *E.g.*, *W. Union Tel. Co. v. McKenzie*, 131 S.W. 684, 685 (Ark. 1910) (noting that "mental anguish for which a recovery can be had must not consist simply of annoyance or disappointment or a suffering of the mind growing out of some imaginary situation, but it must be some actual distress of mind flowing 'from the real ills, sorrows, and griefs of life'"); *Heiner v. Moretuzzo*, 652 N.E.2d 664, 670 (Ohio 1995) (noting that there is no recovery for emotional distress where negligent diagnosis never placed plaintiff in "actual physical peril").

187. 131 S.W. 684 (Ark. 1910).

188. *Id.* at 685–86.

189. 527 N.W.2d 553 (Minn. 1995).

190. *Id.* at 557–60.

191. The *McKenzie* court, though, went even further, implying that the wife's mental anguish itself was not real. 131 S.W. at 685 ("There was no real sorrow or grief that came to her through any real condition or action of her husband.").

192. EADES, *supra* note 173, at § 7.01[3] ("Trying to define the idea of 'mental anguish' or instruct the jury sufficiently to allow the jury to determine whether such an injury has occurred is, of course, difficult."); Geistfeld, *supra* note 168, at 781–82.

Nevertheless (or, perhaps, therefore), such decisions are left to the jury.<sup>193</sup> Precisely because the task is so speculative, however, the guidance given to the jury in making such decisions is vague. Jurors might be instructed that although there is no “formula” by which loss of enjoyment of life may be measured, given their “sound discretion” and “common experience,” “the law can provide no better yardstick for . . . guidance than [jurors’] own impartial judgment and experience.”<sup>194</sup> Or, they may be told, “damages for personal injury cannot be assessed by any fixed rule, but you are the sole judges as to the measure of damages” via a “reasonabl[e], intelligent[.]” exercise of discretion.<sup>195</sup> In Massachusetts, “common sense,” “conscience,” the jurors’ “wisdom and judgment” and their “sense of basic justice” are to be used, as there is “no special formula under the law” to assess damages.<sup>196</sup> And the new California jury instructions note that “[n]o fixed standard exists for deciding the amount of . . . damages. You must use your judgment to decide a reasonable amount based on the evidence and your common sense.”<sup>197</sup> Supreme Court Justices have bemoaned such guidance in the context of punitive damages as “vague and amorphous”<sup>198</sup> and “skeletal.”<sup>199</sup> But clearly, jury instructions for compensatory damages also lack “well-defined standards”<sup>200</sup> and are just as nebulous.<sup>201</sup>

Although the exercise of jurors’ discretion is laudable in reflecting the conscience of the community as to appropriate damage awards, appeals to “common sense” potentially exacerbate jurors’ likely tendencies to overestimate pain and suffering, mental anguish, and future negative emotional reactions. With only vague guidance as to how to approach the issue of forecasting future suffering, jurors may apply default

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193. *Capelouto v. Kaiser Found. Hosps.*, 500 P.2d 880, 883 (Cal. 1972) (stating “the issue generally must be resolved by the impartial conscience and judgment of jurors who may be expected to act reasonably, intelligently and in harmony with the evidence”) (citations and internal quotation marks omitted).

194. NEW JERSEY INST. FOR CONTINUING LEGAL EDUC., MODEL JURY CHARGES: CIVIL § 6.11 (F) (1996).

195. MISSISSIPPI JUDICIAL COLL., MISSISSIPPI MODEL JURY INSTRUCTIONS: CIVIL § 11.3 (2003).

196. MASSACHUSETTS CONTINUING LEGAL EDUC., MASSACHUSETTS SUPERIOR COURT CIVIL PRACTICE JURY INSTRUCTIONS § 2.1.13 (2001).

197. JUDICIAL COUNCIL OF CALIFORNIA CIVIL JURY INSTRUCTIONS, CALIFORNIA JURY INSTRUCTIONS § 3905A (2003).

198. *TXO Prod. Corp. v. Alliances Res. Corp.*, 509 U.S. 443, 474 (1993) (O’Connor, J., dissenting).

199. *Browning-Ferris Indus., Inc. v. Kelco Disposal, Inc.*, 492 U.S. 257, 281 (1989) (Brennan, J., concurring).

200. Geistfeld, *supra* note 168, at 776.

201. *See Haines v. Raven Arms*, 640 A.2d 367, 369 (Pa. 1994) (noting that the lower court had thought it difficult “[for] a lay jury to fix a figure in a case like this with no experience and precious little guidance”); Edith Greene & Brian Bornstein, *Precious Little Guidance: Jury Instruction on Damage Awards*, 6 PSYCHOL. PUB. POL’Y & L. 743 (2000) (reviewing jury instructions for damage awards); *see generally* GREENE & BORNSTEIN, *supra* note 174 (reviewing juror comprehension of civil damage instructions).

judgments that inaccurately predict the intensity and duration of that suffering, with the potential to overcompensate tort victims.<sup>202</sup>

#### b. Potential Remedies

One way to address some of these concerns would be to admit expert evidence on affective forecasting research, as well as coping mechanisms more generally, during the damages phase of civil trials that involve damages for emotional distress. To an extent this is not an unusual suggestion: tort victims have been allowed to present expert testimony about “stages of,” or “patterns of responses to grief,”<sup>203</sup> or to supply specialized testimony about particular victims’ coping or grieving processes from a treating psychologist.<sup>204</sup> However, some courts are hesitant to admit such testimony, stating that it in fact invades the province of the jury to provide expert evidence that was either better provided by the victims or their family members,<sup>205</sup> or that the jury could evaluate on its own because the experience of such grief was within jurors’ experience.<sup>206</sup>

It is certainly true that evidence as to the impact of losing a family member has often been seen as the province of the jury. But where such testimony can in fact help

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202. Two final points. First, to the extent pain and suffering awards can be well delineated, perhaps it is plausible to move to a periodic payment arrangement, in which a victim’s contemporaneous pain and suffering is reevaluated from time to time. *E.g.*, Roger C. Henderson, *Designing a Responsible Periodic-Payment System for Tort Awards: Arizona Enacts a Prototype*, 32 ARIZ. L. REV. 21 (1990). This approach might allow more accurate determination of a victim’s ongoing emotional distress, given the potential for bias in a jury’s initial predictions of that distress. Of course, the administrative costs in doing so could easily become prohibitive, and issues of malingering become problematic as well. MARC A. FRANKLIN & ROBERT L. RABIN, *TORT LAW AND ALTERNATIVES: CASES AND MATERIALS* 613–14 (6th ed. 1996).

Second, although the affective forecasting research suggests the possibility of overcompensation for some tort victims, I do not think that possibility need lead ineluctably to calls for tort reform—such as damage caps—that respond to *deliberately* elevated awards by civil juries. That is, the research documents an unconscious bias that, under some circumstances, can be corrected. This is different from a civil jury’s conscious decision to give substantial monetary awards.

203. *Holiday Inns, Inc. v. Shelburne*, 576 So.2d 322, 336 (Fla. Dist. Ct. App. 1991).

204. *E.g.*, *Horton v. Channing*, 698 So.2d 865, 868 (Fla. Dist. Ct. App. 1997). For other cases addressing the admissibility of “grief experts,” see, for example, *El-Meswari v. Washington Gas Light Co.*, 785 F.2d 483, 487 (4th Cir. 1986); *Dawson v. Fulton*, 745 S.W.2d 617 (Ark. 1988); *Angrand v. Key*, 657 So.2d 1146 (Fla. 1995); *Sharp v. Norfolk & W. Ry. Co.*, 649 N.E.2d 1219 (Ohio 1995). None of these cases involved an expert testifying about affective forecasting.

205. *Angrand*, 657 So.2d at 1149; *Robles v. Chi. Transit Auth.*, 527 N.E.2d 361, 367 (Ill. App. Ct. 1988).

206. *E.g.*, *El-Meswari*, 785 F.2d at 487; *cf. Dawson*, 745 S.W.2d at 620 (stating “jurors may be familiar with grief expressed upon loss of a family member”); see also Douglas L. Price, *Hedonic Damages: To Value a Life or Not to Value a Life?*, 95 W. VA. L. REV. 1055, 1075 (1993).

the jury, it typically should be admitted.<sup>207</sup> The counterintuitive nature of the affective forecasting literature demonstrates its potential utility and thus, at least on helpfulness grounds, its admissibility. In light of the research, it is likely that even when jurors do have insight or experience with grief, they may nevertheless not apply it accurately, especially when trying to apply it to the experience of others. Accordingly, expert testimony about affective forecasting may be useful in helping jurors apply their experience, or in helping those without such experience to more accurately predict victims' future emotional experiences.

I should make one point explicit. I do not intend by any of this discussion to imply that tort victims do not deserve compensation for their injuries, even intangible ones, or should not be awarded damages for future pain and suffering or emotional distress. At least four reasons militate against such an inference. First, I share the entirely plausible and legitimate intuition, reified by the legal system, that when an individual is injured, and is reasonably certain to experience harm from that injury in the future, that individual deserves recompense.

Second, the affective forecasting literature does not show that such an individual will not experience such future harm, nor does it show that people are incorrect to hold that intuition. Recall that people are generally quite accurate at predicting the valence of their future emotions, that is, whether they will experience positive or negative emotion in response to some event.<sup>208</sup> What people have difficulty with is the prediction of the intensity and duration of those responses. As such, victims are probably correct that they will experience some lasting emotional harm from an injury; at issue is the determination of how much.

Third, as discussed above, the affective forecasting literature is just beginning to develop. Although the phenomena that it documents have been demonstrated for more than ten years, only recently has the first full-scale theoretical review appeared,<sup>209</sup> and no quantitative or meta-analytic summary has been conducted.<sup>210</sup> More research will be useful before the affective forecasting literature can be applied without reservation.<sup>211</sup>

If, indeed, it should be applied. A fourth reason not to infer that I mean victims should not be recompensed is our commitment to values other than the application of data.<sup>212</sup> Although social science data should certainly be applied in the legal system, there are times when other principles valued by the law, such as finality, fairness,

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207. *E.g.*, *Horton*, 698 So.2d at 868; *Shelburne*, 576 So.2d at 335–37; *Sharp*, 649 N.E.2d at 1223.

208. *See supra* notes 60–61 and accompanying text.

209. *Wilson & Gilbert*, *supra* note 40.

210. *See* Blumenthal, *supra* note 13, at 38–46 (discussing the importance of meta-analysis in developing theory that can be applied to law); Jeremy A. Blumenthal, *The Reasonable Woman Standard: A Meta-Analytic Review of Gender Differences in Perceptions of Sexual Harassment*, 22 LAW & HUM. BEHAV. 33, 48–51 (1998) [hereinafter Blumenthal, *Meta-Analytic Review*]; David Lubinski, *Applied Individual Differences Research and its Quantitative Methods*, 2 PSYCHOL. PUB. POL'Y & L. 187, 196 (1996) (“[M]eta-analytic strategies are not a methodological fad. They are powerful tools for uncovering the nature and strength of functional relationships. They will be and should be used more in future research.”).

211. *See infra* Part II.C.1.

212. *See infra* Part II.C.2; Blumenthal, *supra* note 13, at 48–51 (discussing different value systems of law and social science and implications for the use of data in the legal system).

process, or constitutional principles, should be elevated over what those data might show.<sup>213</sup> Here, we value the compensation of tort victims, and may continue to do so even in the face of contradictory evidence. For instance, we might decide that although an award may be potentially too high (because of overprediction of harm), that award is nevertheless still within a range we are comfortable with, and does not “shock the conscience.” Similarly, as noted above, there are individual differences in people’s susceptibility to stressors, in their abilities to cope with such stress, and the mechanisms they use to do so. I do not imply that we should punish someone with an optimistic personality, simply because after an accident she continues to view the world in a sanguine way. Finally, we may accept a jury’s award as compensating the suffering that we believe a tort victim would reasonably be entitled to feel, even if subsequent events show that suffering to be less than expected. I discuss the “other values” point in more detail in Part III.<sup>214</sup>

## 2. Capital Punishment

Affective forecasting findings are not only relevant in the civil context, but in the criminal context as well. In particular, the literature raises important questions on both sides of the debate over the administration of capital punishment.

### a. Victim Impact Statements

#### (1) Implications for Capital Sentencing Juries

One criminal context, related to civil jury damage awards is the use of victim impact testimony at capital sentencing.<sup>215</sup> Capital juries are sometimes permitted to hear from a victim’s family members about the impact the defendant’s crime has had on them. The justification is that such victim impact statements (“VIS”) will help the sentencing jury make a more fully informed decision, helping to quantify the harm a defendant caused by understanding the emotional pain that family members feel in the present and will feel in the future.<sup>216</sup> Although the capital jury’s decisionmaking is reminiscent of the civil jury’s as to damages for pain and suffering and other emotional harms,<sup>217</sup> the primary and most obvious difference is the dichotomous choice to which such statements lead in the capital context—life or death for the defendant.

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213. See *infra* Part II.C.2.

214. See also Blumenthal, *supra* note 13, at 48–51.

215. Such testimony is permitted under *Payne v. Tennessee*, 501 U.S. 808, 827 (1991) (holding that the use of victim impact statements during capital sentencing was not per se unconstitutional).

216. E.g., Richard A. Posner, *Emotion Versus Emotionalism in Law*, in *THE PASSIONS OF LAW*, *supra* note 31, at 309, 325 (“much victim impact evidence concerns the effect of the victim’s death on the victim’s survivors”); cf. Susan A. Bandes, *Reply to Paul Cassell: What We Know About Victim Impact Statements*, 1999 UTAH L. REV. 545, 551 (noting that in capital cases, “the term ‘victim impact statement’ is a misnomer, since the statements are not those of the victim, but are given by family members, friends, and other survivors.”).

217. See *supra* Part II.A.1.

The VIS literature, mostly critical, is large.<sup>218</sup> Most criticism involves arguments either that such testimony is irrelevant to assessing the amount of harm caused by a particular crime,<sup>219</sup> or that it evokes in the jury improper or inappropriate emotional reactions that will lead to capricious decisionmaking and the overimposition of death sentences.<sup>220</sup> Proponents (and the governing law) respond that the impact of a murder on the victim's family is in fact profoundly relevant to evaluating the amount of harm caused by the defendant, and thus to the punishment the defendant deserves.<sup>221</sup> I have briefly reviewed these and other arguments for and against VIS elsewhere,<sup>222</sup> and will focus here on the implications of the affective forecasting research for the debate.

Under current case law, a capital defendant's punishment depends in part on the amount of harm caused by his actions.<sup>223</sup> To the extent this is so, of course, it is essential that that harm is accurately assessed. If the amount of harm is overestimated, defendants may receive a more severe sentence than they deserve. If the amount of harm is underestimated, defendants' sentences may be lighter than their crime warrants.

In turn, when such estimates are based on VIS, then the statements should accurately reflect the harm that family members experience, both before and after the trial. Errors in the prediction of such future harm may tend to inflate estimates, leading to potentially more severe sentences, all else being equal. Based on the data reviewed above, such overestimates seem more likely than underestimates.<sup>224</sup>

Exacerbating such concerns is the problem of jurors trying to estimate another's future emotional state. Of course, that is what VIS are for, to educate a sentencing jury about the harm that each family member anticipates as a result of a murderer's crime. Nevertheless, the research suggests not only that such predictions can be mistaken, but that predictions regarding others may be even less accurate.<sup>225</sup> On the one hand,

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218. See Jean M. Callihan, *Victim Impact Statements in Capital Trials: A Selected Bibliography*, 88 CORNELL L. REV. 569 (2003) (collecting citations to materials discussing the effect of victim impact statements).

219. E.g., Lynne N. Henderson, *The Wrongs of Victim's Rights*, 37 STAN. L. REV. 937, 987–92 (1985) (discussing the relevance of victims' testimony to some of the justifications for criminal sanction); Justin D. Flamm, Note, *Due Process on the "Uncharted Seas of Irrelevance": Limiting the Presence of Victim Impact Evidence at Capital Sentencing After Payne v. Tennessee*, 56 WASH. & LEE L. REV. 295, 322 (1999) (arguing that victim impact evidence is irrelevant because it has no tendency to make the existence of facts necessary for capital murder more or less likely).

220. E.g., Bandes, *supra* note 31, at 365 (“[V]ictim impact statements . . . should be suppressed because they evoke emotions inappropriate in the context of criminal sentencing.”). This was also a basis for the earlier case law prohibiting such testimony. See *Booth v. Maryland*, 482 U.S. 496, 508–09 (1987).

221. *Payne v. Tennessee*, 501 U.S. 808, 819, 827 (1991).

222. See Blumenthal, *supra* note 28, at 73–79.

223. See *Payne*, 501 U.S. at 819 (stating that such harm is “an important concern” in determining what punishment a defendant deserves).

224. See Blumenthal, *supra* note 28, at 84.

225. Eric Igou & Herbert Bless, *My Future Emotions Versus Your Future Emotions: The Self-Other Effect in Affective Forecasting* (2002) (unpublished manuscript on file with author) (demonstrating that outsiders' affective forecasting is even less accurate than one's own); cf. Kahneman, *supra* note 55, at 116 (asking whether paternalistic actions are warranted

outsiders may be more free from biases that focus self-predictions on the personally salient events that lead to overestimates; on the other hand, recent data suggest that an outsider's affective predictions can be even less accurate than one's own.<sup>226</sup> Other data suggest that the more different an outsider is from the target of a prediction, the less accurate predictions will be.<sup>227</sup>

Such difficulties highlight the fact that the affective forecasting literature in fact points both ways for VIS. On the one hand, the research suggests at least the potential for overestimating the harm consequent on a capital defendant's crime.<sup>228</sup> This potential militates against the use of VIS at capital sentencing. On the other hand, without such VIS—which may be relatively more accurate than outsiders' estimates<sup>229</sup>—capital sentencers would be left to guess as to the future impact of that crime on family members, and it would be unclear whether overestimates or underestimates would result.

Another concern stems from the fact that criminal cases do not go immediately to trial. Sentencing, the phase at which VIS become relevant, takes place even further in time from the crime.<sup>230</sup> This raises the possibility that victims' family members will have already begun their "recovery" by the time they give VIS. Of course, the commencement of any coping activity is a positive sign. From the perspective of a capital sentencing system, however, such a decrease in the perceived harm may lead to the underestimates described above. To the extent that (1) an individual has begun to return to "baseline," (2) her VIS predictions of future negative emotional states are an extrapolation from her current emotional state, and (3) future experiences involve fluctuations in grief and suffering, such VIS may in fact underpredict the amount of harm that a witness may in fact experience. This may in turn lead to a more lenient punishment than a capital defendant otherwise deserves.<sup>231</sup>

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where "an outsider can . . . predict an individual's future utility far better than the individual can"). *But see* Timothy D. Wilson et al., *Judging the Predictors of One's Own Mood: Accuracy and the Use of Shared Theories*, 18 J. EXPERIMENTAL SOC. PSYCHOL. 537, 553 (1982) (finding that observers' judgments of the predictors of experiencers' moods were as accurate as the experiencers' judgments). More experimental research would be useful comparing one's own versus others' judgments of emotional states.

226. *See* Igou & Bless, *supra* note 225.

227. *See* Schkade & Kahneman, *supra* note 40, at 340 (showing that predictions of paraplegics' self-reported well-being were more accurate when the predictor knew someone who had suffered paraplegia).

228. *See* Blumenthal, *supra* note 28, at 86; *cf. id.* at 84 n.148 (noting that further "data about inaccuracies in producing judgments about future emotional experiences, and the related potential for unreliability in testimony about those judgments, would be important in the context of VIS").

229. *See* Igou & Bless, *supra* note 225.

230. *See* Blumenthal, *supra* note 28, at 85 n.163.

231. Militating against this concern, however, is the "focusing illusion," where simply asking respondents about an event or emotion temporarily raises its prominence. *See supra* notes 119–120 and accompanying text; Frederick & Loewenstein, *supra* note 77, at 310 (noting this tendency).

## (2) Educating Capital Sentencing Juries

For capital sentencing based on VIS, jury education may alleviate some potential for over- or underpredictions.<sup>232</sup> As Wilson and colleagues showed, reminding predictors (i.e., jurors) that events will likely occur that will at the very least distract them from the emotional state on which they are overly focused, may help make predictions more accurate.<sup>233</sup> Such suggestions help predictors take into account factors that might assuage or influence certain future emotional states, helping people understand at Time<sub>0</sub> that certain events they may not be thinking about will almost certainly occur between Time<sub>0</sub> and Time<sub>1</sub> or Time<sub>2</sub> that will influence their emotional states at Time<sub>1</sub> or Time<sub>2</sub>. This may suggest that capital defense counsel should educate the sentencing body in such a manner: defense counsel could tell the capital jury, for instance, that yes, this murder is a tragedy, but nevertheless, events take place that help individuals now suffering from the tragedy to cope; although people do not recognize it, their psychological immune system more often than not functions to help them deal with such traumatic events.

It is hard to imagine, of course, any capital defense counsel wanting to be the first to try this approach—indeed, I’m sure that most attorneys (and most readers) cringe at the thought of standing before a capital jury and cross-examining a murder victim’s family member with the words, “You’ll get over this, won’t you?” But first, of course, it is any defense counsel’s obligation to present any argument she feels might be helpful to her client. Second, counsel might present the information about hedonic adaptation during a closing argument, rather than as cross-examination of VIS witnesses. Third, an alternative might be to place such instruction in the judge’s hands—perhaps some information about the potential for overprediction of negative emotions could be made part of a capital jury’s instructions.<sup>234</sup> This last alternative would be a large step to take and, in fact, might give too much credit to the affective forecasting literature as it stands now. I raise the possibility less as a step I would advocate than as a suggestion for further empirical research: a useful experiment might present mock capital juries with a standard capital defendant, and present different conditions involving (1) no VIS (as a control); (2) VIS presented in the “ordinary” way, with no information about the affective forecasting literature; (3) information presented by defense counsel (either through cross-examination or, more plausibly, during a closing argument); and (4) information presented through judicial instruction. Such an experiment could help address whether such information would be influential and in what format. Discussion could then proceed, on a more informed basis, to whether such information should be used.

## b. Affective Forecasting and the “Death Row Phenomenon”

A yet more controversial application of the affective forecasting literature to capital punishment involves its implications for prisoners’ experiences on death row, and the

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232. Again, of course, such education might also help with the concerns raised above about civil damage awards. *See supra* Part II.A.1.

233. Wilson et al., *supra* note 40, at 844.

234. The propriety of such instruction may depend on whether any such evidence was presented during the proceedings in the first place.

viability of so-called “*Lackey* claims” regarding the constitutionality of execution after long waits in prison. *Lackey* claims are named for the death row inmate who argued that execution of an inmate after a “lengthy” wait on death row violates the Eighth Amendment’s ban on “cruel and unusual punishments.”<sup>235</sup> Although international courts have been receptive to such claims,<sup>236</sup> U.S. courts have been less receptive,<sup>237</sup> typically holding that the claims were procedurally barred<sup>238</sup> or that the inmate had so abused the process that much or most of the delay should be attributed to him.<sup>239</sup>

Academic commentary has taken up the argument, however,<sup>240</sup> asserting that such delay constitutes “psychological torture”<sup>241</sup> and is unconstitutional. Such commentary asserts the horrors of being on death row through citation to court opinions,<sup>242</sup> lay opinions,<sup>243</sup> some scientific data,<sup>244</sup> and a near-obligatory reference to the philosopher

235. See *Lackey v. Texas*, 514 U.S. 1045 (1995) (Stevens, J., dissenting from denial of certiorari); see also *Elledge v. Florida*, 525 U.S. 944 (1998) (Breyer, J., dissenting from denial of certiorari). Courts had been presented with this argument before. See Dwight Aarons, *Can Inordinate Delay Between a Death Sentence and Execution Constitute Cruel and Unusual Punishment?*, 29 SETON HALL L. REV. 147, 170–76 (1998) (discussing cases prior to *Lackey*).

236. E.g., *Pratt v. Att’y Gen. for Jamaica*, 4 All E.R. 769, 771 (P.C. 1993) (en banc).

237. Compare *Knight v. Florida*, 528 U.S. 990, 992–93 (1999) (Thomas, J., concurring in denial of certiorari) (reviewing lower courts’ treatment of *Lackey* claims and stating that those “courts have resoundingly rejected the claim as meritless”), with *id.* at 998 (Breyer, J., dissenting from denial of certiorari) (taking different view of lower courts’ treatment).

238. Jessica Feldman, Comment, *A Death Row Incarceration Calculus: When Prolonged Death Row Imprisonment Becomes Unconstitutional*, 40 SANTA CLARA L. REV. 187, 193–94 & n.67 (1999) (collecting cases). But see *Dist. Att’y for Suffolk Dist. v. Watson*, 411 N.E.2d 1274, 1283 (Mass. 1980) (ruling capital punishment unconstitutional, in part based on impact of delays on death row); *People v. Anderson*, 493 P.2d 880, 894 (Cal. 1972) (same).

239. E.g., *Fearance v. Scott*, 56 F.3d 633, 638 (5th Cir. 1995).

240. See Bryan A. Stevenson, *The Politics of Fear and Death: Successive Problems in Capital Federal Habeas Corpus Cases*, 77 N.Y.U. L. REV. 699, 762 n.291 (2002) (collecting academic literature).

241. Ryan S. Hedges, Note, *Justices Blind: How the Rehnquist Court’s Refusal to Hear a Claim for Inordinate Delay of Execution Undermines Its Death Penalty Jurisprudence*, 74 S. CAL. L. REV. 577, 590 (2001).

242. E.g., *id.* (citing *People v. Anderson*, 493 P.2d 880, 894 (Cal. 1972)); see *id.* at 601–02 & nn.163–67.

243. Kathleen M. Flynn, Note, *The “Agony of Suspense”: How Protracted Death Row Confinement Gives Rise to an Eighth Amendment Claim of Cruel and Unusual Punishment*, 54 WASH. & LEE L. REV. 291, 298 n.36 (1997) (citing former prison warden). Ms. Flynn’s actual quotation from the warden is that: “‘One night on death row is too long, and the length of time spent there by [some inmates] constitutes cruelty that defies the imagination. It has always been a source of wonder to me that they didn’t all go stark, raving mad.’” *Id.* (quoting CLINTON T. DUFFY, *EIGHTY-EIGHT MEN AND TWO WOMEN* 254 (1962)) (alteration in original).

244. E.g., *id.* at 298 n.37 (quoting Harvey Bluestone & Carl L. McGahee, *Reaction to Extreme Stress: Impending Death by Execution*, 119 AM. J. PSYCHIATRY 393, 393 (1962)). The quotation Ms. Flynn selected, that a death sentence inflicts “the greatest of stresses,” is somewhat misleading, as these authors in fact found less psychological dysfunction than they expected. See *infra* notes 255–259 and accompanying text.

Albert Camus.<sup>245</sup> *Lackey* claims as a general matter, of course, turn on just this question: Can a delay between the imposition and the carrying-out of a death sentence can constitute such psychological suffering as to be cruel and unusual punishment. Inmates and commentators have argued that it can and does, and that inordinate delay is thus per se unconstitutional.

Of course, *some* delay between sentence and execution is inevitable. Capital punishment states ordinarily have mandatory appellate review of death sentences,<sup>246</sup> and prisoners typically seek federal habeas review as well.<sup>247</sup> The *Lackey* question then must become not only whether delay is cruel and unusual punishment, but also what length of delay qualifies.<sup>248</sup> Commentators have suggested ten years' time (the national average for being on death row), or twice the national average, as points at which an inordinate delay claim should be ripe for review.<sup>249</sup>

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245. Camus wrote that "[t]he devastating, degrading fear that is imposed on the condemned for months or years is a punishment more terrible than death." Albert Camus, *Reflections on the Guillotine*, in *RESISTANCE, REBELLION, AND DEATH* 131, 152 (Justin O'Brien trans., Modern Library ed. 1963). "As a general rule, a man is undone by waiting for capital punishment well before he dies. Two deaths are inflicted on him, the first being worse than the second . . ." *Id.* at 156.

246. See Anthony G. Amsterdam, *In Favorem Mortis: The Supreme Court and Capital Punishment*, 14 *HUM. RTS.* 14, 16 (Winter 1987); Douglas W. Vick, *Poorhouse Justice: Underfunded Indigent Defense Services and Arbitrary Death Sentences*, 43 *BUFF. L. REV.* 329, 354 (1995).

247. See generally Vivian Berger, *Justice Delayed or Justice Denied?—A Comment on Recent Proposals to Reform Death Penalty Habeas Corpus*, 90 *COLUM. L. REV.* 1665 (1990) (examining death sentences in federal habeas review sought by prisoners).

248. See Aarons, *supra* note 235, at 206 ("Then the question arises: How long a delay is inordinate?").

249. *Id.* at 207 (suggesting twice the national average); Feldman, *supra* note 238, at 213 (suggesting ten years). As Professor Aarons indicates, however, this should *not* be the point at which delay becomes unconstitutional—that is, a death row inmate would not be removed from death row upon the twentieth, or twenty-second, anniversary of his sentence (those being approximately double the national average). Aarons, *supra* note 235, at 207–08. Rather, it is the point (for Aarons) at which such delay plausibly would be inordinate and at which a prisoner's claim might be ripe for review. *Id.* at 207.

Ms. Feldman seems to take a stricter approach, implying that upon spending ten years that can be attributed to the State on death row, an inmate should automatically be removed. Feldman, *supra* note 238, at 213–15. Under her approach, the *entire* time a prisoner spends pursuing direct and collateral appeals should be attributed to the State, whether or not meritorious issues are raised. *Id.* at 215. Her rationale is three-fold: first, for direct appeals, "a prisoner has no option to forgo the mandatory appeals." Second, similarly, courts should not punish prisoners for pursuing their "Fourteenth Amendment right to appeal their sentences." *Id.* at 207–08 & n.189; *id.* at 216 ("A petitioner has a constitutional right to pursue his collateral appeals."). Third, courts should not require a prisoner to forgo collateral appeals, nor can courts "expect a prisoner to forgo his chance at life if he thinks he may have the slightest chance at a meritorious claim." *Id.* Ms. Feldman may be justified in suggesting a specific ten-year cutoff point; however, she is wrong on at least her first and second rationales. There is no Fourteenth Amendment or other constitutional right to appeal, *e.g.*, *Jones v. Barnes*, 463 U.S. 745, 751 (1983), though some sort of "meaningful appellate review" is essential in capital cases. *Murray v. Giarratano*, 492 U.S. 1, 22–23 (1989) (Stevens, J., dissenting) ("Generally there is no

In at least two ways, the affective forecasting data may prompt a rethinking of courts' and commentators' assumptions that life on death row must be "psychological torture."

First, recall that one reason affective forecasting is inaccurate is that people fail to consider their psychological immune system; that is, they neglect the possibility of hedonic adaptation.<sup>250</sup> People overestimate how unhappy a paraplegic or a bereaved spouse will be because they do not take into account the social and physical support the person may have, the passage of time, and other factors that combine to lessen the impact of negative physical and emotional events.<sup>251</sup> Likewise, it is conceivable that death row inmates experience a similar sort of hedonic adaptation, engaging in psychological coping mechanisms that help them adapt to clearly unnatural circumstances.

Obviously, the best way to address whether they do is to study death row inmates' experiences. Existing data about such experiences, however, are limited<sup>252</sup> and inconclusive. But given such strong claims that life on death row must be

constitutional right to appeal a conviction."); *id.* at 17–18 (noting the "absence of a constitutional right to appeal"). Ms. Feldman notes the existence of statutorily-mandated appellate review in most capital states, Feldman, *supra* note 238, at 190, but seems to conflate this with a constitutional right to appeal. Of course, even absent a "per se constitutional right to appeal, . . . once a State [sic] establishes an appellate forum it must assure access to it upon terms and conditions equally applicable and available to all." Chaffin v. Stinchcombe, 412 U.S. 17, 24–25 n.11 (1973). Regarding the third rationale, though it seems plausible that a prisoner should not be "charged" with pursuing meritorious appellate claims, Ms. Feldman's argument misses the question whether time spent on nonmeritorious claims should be attributed to him. Further, it is at least possible that a prisoner's thought that "he may have the slightest chance at a meritorious claim" tempers the offensive conditions on death row.

250. See Frederick & Loewenstein, *supra* note 77 (discussing hedonic adaptation); Gilbert et al., *supra* note 132, at 124 (discussing psychological immune system).

251. See *supra* notes 66–75.

252. Focusing on quantitative, rather than anecdotal or descriptive evidence, Bonta and Gendreau noted in 1990 that "[v]ery little evidence is available on how inmates adjust to death row." James Bonta & Paul Gendreau, *Reexamining the Cruel and Unusual Punishment of Prison Life*, 14 LAW & HUM. BEHAV. 347, 363 (1990). The existing empirical literature—as opposed to academic writing generally—has not grown much since. One commentator on the psychological effects of imprisonment, however, has suggested that where studies focus overmuch on quantitative measures, "more subtle" information is lost. Craig Haney, *Psychology and the Limits to Prison Pain: Confronting the Coming Crisis in Eighth Amendment Law*, 3 PSYCHOL. PUB. POL'Y & L. 499, 532 (1997). Methodology can become a serious issue in such research, whether concerns are raised over quantitative versus qualitative data, over the measures used, over the existence or type of control groups, or over the representativeness of the sample chosen. For instance, Otnow Lewis and colleagues, studying death row inmates' mental health, noted that their interview sample was chosen because of the imminence of prisoners' execution date and the desire to find mitigating factors, rather than any apparent psychopathology on the prisoners' part. Dorothy Otnow Lewis et al., *Psychiatric, Neurological, and Psychoeducational Characteristics of 15 Death Row Inmates in the United States*, 143 AM. J. PSYCHIATRY 838, 839 (1986). Without further explanation, the researchers suggested that this approach identified inmates who were "representative of the inmates awaiting execution in this country." *Id.*

“psychological torture,”<sup>253</sup> or that such torture is an “immutable characteristic” of the death row phenomenon,<sup>254</sup> a focus on empirical study of the phenomenon is essential.

One of the first empirical studies of inmates’ adjustment to death row involved interviews with nineteen New York death row inmates (eighteen men, one woman).<sup>255</sup> Prisoners were given projective tests that were interpreted by a trained examiner.<sup>256</sup> The authors expected to find evidence of some severe psychological dysfunction such as anxiety or depression; however, such symptoms were “conspicuously absent.”<sup>257</sup> Instead, the authors found that inmates used various defense mechanisms to protect against the psychological stress of death row; consciously or unconsciously, they exercised some sort of psychological immune system to help them deal with those rigors. Of course, those mechanisms may have been healthy or unhealthy: some developed obsessive ruminations, some developed delusions, and others denied their situation.<sup>258</sup> Yet others maintained hope for successful appeals, believing that at some point they would in fact be removed from death row.<sup>259</sup> Such beliefs have been found in other research as well. Robert Johnson, for instance, noted that “inmates currently facing a death sentence may operate under the assumption that executions are unlikely; as a consequence, they may view death row confinement as a temporary phase of their prison careers.”<sup>260</sup> In fact, this is far from an unreasonable or unhealthy expectation, given recent evidence about the rates at which death sentences are overturned.<sup>261</sup>

A subsequent study in North Carolina used a smaller sample (eight men), but followed those subjects for a longer period of time, generally at least two years after

253. *People v. Anderson*, 493 P.2d 880, 894 (Cal. 1972).

254. Hedges, *supra* note 241, at 603.

255. Bluestone & McGahee, *supra* note 244, at 393.

256. *Id.*

257. Barbara A. Ward, *Competency for Execution: Problems in Law and Psychiatry*, 14 FLA. ST. U. L. REV. 35, 39 (1986). More precisely, the authors noted that “neither [severe depression nor devastating anxiety] was conspicuous among these doomed 19 persons.” Bluestone & McGahee, *supra* note 244, at 393.

258. See George E. Vaillant, *Adaptive Mental Mechanisms: Their Role in a Positive Psychology*, 55 AM. PSYCHOL. 89, 93 tbl.1 (2000) (describing adaptive hierarchy of defensive mechanisms ranging from, for example, projection or psychosis to suppression or humor).

259. Bluestone & McGahee, *supra* note 244, at 393 (noting inmate who “maintained a calm conviction that he would ultimately be pardoned”); see also ERNEST VAN DEN HAAG & JOHN P. CONRAD, *THE DEATH PENALTY: A DEBATE* 257 (1983) (“When questioned, most life prisoners will tell you that they expect to escape”—presumably through legal or illegal means).

260. Robert Johnson, *Under Sentence of Death: The Psychology of Death Row Confinement*, 5 LAW & PSYCHOL. REV. 141, 145 (1979) (citing Peter W. Lewis, *Killing the Killers: A Post-Furman Profile of Florida’s Condemned*, 25 CRIME & DELINQUENCY 200 (1979)). A subsequent book, Robert Johnson’s, *Condemned to Die: Life Under Sentence of Death* (1981), is an expanded account of Johnson’s 1979 article and the interviews reported there. See also Julius Debro et al., *Death Row Inmates: A Comparison of Georgia and Florida Profiles*, 12 CRIM. JUST. REV. 41, 43 (1987) (“Most of the inmates (95%) did not believe that they would ever be executed and expressed the view that some nonspecified intervention would occur in their behalf.”).

261. E.g., James S. Liebman et al., *Capital Attrition: Error Rates in Capital Cases, 1973–1995*, 78 TEX. L. REV. 1839 (2000).

admission to death row.<sup>262</sup> The authors conducted intelligence and personality tests with the inmates, as well as psychiatric interviews and psychological testing. The authors found that five of the inmates showed no observable deterioration, apparently adjusting over time; three, however, exhibited psychological dysfunction.<sup>263</sup> Inmates reported less anxiety over time, in some cases reporting a sort of “acceptance” of their situation.<sup>264</sup> A later study by one of the authors compared personality inventory scores of thirty-four death row prisoners with those of a large sample of non-death row prisoners.<sup>265</sup> Death row inmates in that study reported higher levels of hopelessness and depression, but did not report substantially higher levels of intense dysfunction such as psychosis.<sup>266</sup>

Robert Johnson also conducted a number of interviews with death row inmates, these in Alabama, providing vivid narrative accounts in the prisoners’ own words.<sup>267</sup> He documented feelings of lack of power, “despair,” and “suppressed, directionless anger,”<sup>268</sup> and prisoners who felt “emotionally drained.”<sup>269</sup> In all, Johnson suggested, these feelings of powerlessness, fear, and emotional emptiness combined to give death row inmates a feeling of experiencing a “living death.”<sup>270</sup>

Other interviews of death row inmates were prompted by observations that such prisoners often revealed no psychopathology upon admittance to death row, and were referred only infrequently for psychiatric attention.<sup>271</sup> These observations led researchers to hypothesize that such inmates had strong psychological defense mechanisms.<sup>272</sup> Interviewing thirty-four North Carolina death row inmates, Smith and Felix found denial or suppression to be “highly prevalent” defense mechanisms. Prisoners often refused to discuss their offenses,<sup>273</sup> when they did, several maintained their innocence, claiming that they were framed, that they were the subject of racial

262. Johnnie L. Gallemore & James H. Panton, *Inmate Responses to Lengthy Death Row Confinement*, 129 AM. J. PSYCHIATRY 167 (1972).

263. *Id.* at 168.

264. *Id.* at 170.

265. James H. Panton, *Personality Characteristics of Death Row Prison Inmates*, 32 J. CLINICAL PSYCHOL. 306 (1976).

266. *Id.*

267. Robert Johnson, *Life Under Sentence of Death*, in THE PAINS OF IMPRISONMENT 129 (Robert Johnson & Hans Toch eds., 1982); Johnson, *supra* note 260.

268. Johnson, *supra* note 260, at 178. Reflecting the hedonic adaptation discussion here, Johnson noted that such anger may in fact “represent the principal sign of psychological survival and emotional life on death row.” *Id.*

269. *Id.* at 180.

270. *Id.* at 155 fig. 1; ROBERT JOHNSON, CONDEMNED TO DIE 99–118 (1981).

271. See Charles E. Smith & Richard Reid Felix, *Beyond Deterrence: A Study of Defenses on Death Row*, FED. PROBATION, Sept. 1986, at 55.

272. *Id.*

273. Of course, as the authors noted, a prisoner can do himself a substantial disservice by discussing aspects of his crime in detail while his conviction or sentence is on appeal. *Id.* at 58–59. In turn, this understandable reticence may “facilitate the development and hardening of internal defense mechanisms.” *Id.* at 59.

animus during trial, or that the victim was at fault.<sup>274</sup> Seven of thirty-four prisoners exhibited depression, helpless feelings or hopelessness, or anxiety.<sup>275</sup> Only two prisoners expressed guilt or remorse, one suggesting that because of the guilt he was experiencing “he did not need additional punishment.”<sup>276</sup> The authors did not observe other unconscious defense mechanisms such as sublimation, repression, or others.<sup>277</sup>

In a study of twenty-five Georgia death row inmates, Debro, et al. also failed to find severe psychological dysfunction.<sup>278</sup> Inmates in their study had a “general sense of well-being” and “slept well every night.”<sup>279</sup> The authors attributed this well-being to the observed absence of executions in the previous twenty years, and the fact that no execution date had been set while the interview sample had been on death row; but they also suggested that inmates may have resolved their “grief” during their time on death row.<sup>280</sup>

In apparent contrast, Craig Haney’s extensive work on “supermax” confinement suggests quite real and substantial psychological dysfunction among prisoners undergoing long periods of solitary or supermax confinement.<sup>281</sup> Although not explicitly examining death row prisoners, Haney has studied inmates held for long periods under “super maximum” prison conditions, conditions often similar to death row.<sup>282</sup> Studying inmates at California’s Pelican Bay supermax unit, Haney found not only prevalent psychological trauma such as depression, anxiety, and other indications of “misery”—negative psychological effects that most prisoners, whether or not on death row, suffer<sup>283</sup>—but also arguably more severe psychopathologies such as violent fantasies, “overall deterioration,” social withdrawal, and chronic depression.<sup>284</sup> On the one hand, this research shows the very real negative consequences of death row-like conditions on inmates’ mental health. On the other hand, however, such research may undercut *Lackey*-type claims by demonstrating that such problems are not unique to death row. In fact, any inmates undergoing supermax confinement may be subject to the effects that Haney documents.<sup>285</sup>

Another study focusing on condemned prisoners’ mental health (though not directly addressing the “death row phenomenon”) did find substantial evidence of chronic

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274. *Id.* at 58. This is not an unusual response; Debro et al. found that a majority of their respondents claimed they were innocent, did not receive a fair trial, or were the subject of racial discrimination. Debro et al., *supra* note 260, at 42–43.

275. Smith & Felix, *supra* note 271, at 56.

276. *Id.* at 58. Similarly, in Debro et al.’s study, only two of twenty-five expressed remorse for the victim or the victim’s family. Debro et al., *supra* note 260, at 42.

277. See Smith & Felix, *supra* note 271, at 58.

278. Debro et al., *supra* note 260.

279. *Id.* at 43.

280. *Id.*

281. E.g., Craig Haney, *Mental Health Issues in Long-Term Solitary and “Supermax” Confinement*, 49 CRIME & DELINQUENCY 124 (2003).

282. *Id.*; Haney, *supra* note 252.

283. Norman L. Greene et al., *Dying Twice: Incarceration on Death Row*, 31 CAP. U. L. REV. 853, 868–70 (2003) (remarks of Craig Haney).

284. Haney, *supra* note 281, at 133–34 tbls. 1 & 2.

285. Cf. Paul von Zielbauer, *Report on State Prisons Cites Inmates’ Mental Illness*, N.Y. TIMES, Oct. 22, 2003, at B1 (reporting on study by the Correctional Association of New York suggesting that 25% of New York inmates kept in punitive segregation “are mentally ill”).

psychoses in six of fifteen subjects studied, with three additional inmates displaying episodic psychosis.<sup>286</sup> After reviewing the prisoners' histories, however, the authors noted that the psychotic symptoms apparently predated the prisoners' offenses, and "thus probably were not the result of incarceration."<sup>287</sup> Interviews by these researchers of fourteen juveniles on death row yielded similar results. All demonstrated pathological psychiatric symptoms.<sup>288</sup> Seven of the fourteen were psychotic at evaluation or had previously been so diagnosed; four had histories consistent with mood disorders, and the other three exhibited period psychosis. Half of the fourteen inmates interviewed first manifested psychiatric disturbances in early or middle childhood.<sup>289</sup>

Why are intuitions about the horror of life on death row not borne out more strongly by the existing data? One researcher pointed to the importance of family or social support in maintaining prisoners' mental health, but also pointed out how often such support is lacking in this population.<sup>290</sup> Another notes the important distinction between a general "misery" (as defined above) and even more serious psychological dysfunction.<sup>291</sup> But another tentative explanation is the hedonic adaptation described in the affective forecasting literature, the very process that people often neglect when evaluating their own and others' psychological reactions to emotional events. Johnson, despite arguing forcefully for the common death row reaction of hopelessness and helplessness, noted that "[a]daptation in this unstable world is possible . . . . In the final analysis, [death row inmates] exercise what may amount to a kind of existential detachment."<sup>292</sup> Indeed, in an unconscious echo of the Brickman study,<sup>293</sup> one staunch abolitionist noted that death row inmates adapt to their situation and "communicate with each other by shouts, notes, and hand-held mirrors, *all with a casual dexterity that handicapped people acquire over time.*"<sup>294</sup> In their review of the research extant as of 1990, Bonta and Gendreau suggested that these "limited data are a testimony to the

286. See Otnow Lewis et al., *supra* note 252, at 840. Again, these inmates were not studied because of any previously observed psychopathology, but rather based on scheduled execution dates and efforts to find mitigating factors. *Id.* at 839.

287. See Otnow Lewis et al., *supra* note 252, at 841 (emphasis added).

288. Dorothy Otnow Lewis et al., *Neuropsychiatric, Psychoeducational and Family Characteristics of 14 Juveniles Condemned to Death in the United States*, 145 AM. J. PSYCHIATRY 584, 585 (1988); *id.* at 587 tbl. 3.

289. *Id.* at 585.

290. Johnson, *supra* note 260, at 159–61 (describing substantial value to death row inmates of family visits); *id.* at 147 (noting typical absence of such support).

291. See Greene et al., *supra* note 283, at 868–70 (remarks of Craig Haney).

292. Johnson, *supra* note 260, at 170.

293. Brickman et al., *supra* note 65.

294. David Bruck, *Condemned to Death: The Capital Punishment Lottery*, NEW REPUBLIC, Dec. 12, 1983, at 18 (emphasis added). The analogy to the handicapped—or, as is sometimes made, to the terminally ill—may be imperfect. See Johnson, *supra* note 260, at 145–47. As Johnson points out, terminally ill patients may have more social and institutional support than do death row inmates. *Id.* at 147. *But see id.* at 159–61 (describing importance of, and support from, spousal visits). One commentator suggested, however, that the comparison may be apt, noting that a "hospital death [may be] no more barren of pain or of undignified details" than is an execution. VAN DEN HAAG & CONRAD, *supra* note 259, at 16.

ability of men to cope with the worst of consequences.”<sup>295</sup> Obviously, more research is crucial in resolving whether such adaptation may occur on death row, and, if so, what it might suggest for *Lackey* claims. What the research does suggest so far is that delay before execution does not necessarily lead to psychological dysfunction. It is essential, as with most research on such functioning, to consider the interaction between the individual in question and the situation in which he finds himself.<sup>296</sup>

Note that these points are also relevant to the claims of some abolitionists that life on death row is so unpleasant that it is in fact a more appropriate and severe punishment than execution. That is, some subscribe to the idea that murderers should be kept alive so that they can reflect on their actions for the rest of their lives. However, finding strong defense mechanisms<sup>297</sup> and, possibly, other hedonic adaptation, suggests that execution might in fact be a more severe punishment than either death row or life imprisonment without parole.<sup>298</sup> Though it does not resolve the question, a final set of data in this regard comes from a study of a sample of 115 North Carolina death row inmates whose sentences had been commuted to life in prison.<sup>299</sup> This study showed that almost half (42%) of the inmates in the sample showed no change in psychological functioning as measured by the Minnesota Multiphasic Personality Inventory (MMPI).<sup>300</sup> Twice as many prisoners “improved” psychologically on that measure as “deteriorated” (eighteen versus nine), after having been moved from death row to life imprisonment.<sup>301</sup>

The fact that our intuitions about life on death row are not borne out by the data also reflects findings from the affective forecasting literature. Thus, the second relevant connection between that literature and the death row phenomenon also reflects the need for better data. Few who write about the issue have first-hand knowledge or experience of life on death row. As outlined above, the affective forecasting literature shows the potential for discrepancies between predictions of our own reactions and

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295. Bonta & Gendreau, *supra* note 252, at 364; *see also* Haney, *supra* note 281, at 138 (“[I]n the course of adjusting and adapting to the painful and distressing conditions of [supermax] confinement, many prisoners will strive to essentially ‘get used to it,’ adapting and accommodating to make their day-to-day misery seem more manageable”); *supra* notes 77–78 and accompanying text.

296. Bonta & Gendreau, *supra* note 252, at 364–65 (stating that “interactions between certain types of individual differences and situational components explained a meaningful percentage of the variance” in psychological dysfunction).

297. *See, e.g.*, Smith & Felix, *supra* note 271.

298. *Cf.* *People ex rel. Patrick v. Frost*, 133 N.Y. 179, 182 (1909) (comparing execution to life imprisonment and noting that “[i]t is the common judgment of man that to deprive the criminal of his life is the greatest punishment known to modern times”); *id.* at 183 (“punishment which leaves life is less than that which ends it”).

299. W. Grant Dahlstrom et al., *Utility of the Megargee-Bohn MMPI Typological Assignments: Study with a Sample of Death Row Inmates*, 13 CRIM. JUST. & BEHAV. 5 (1986). In *Woodson v. North Carolina*, 428 U.S. 280 (1976), the Supreme Court ruled that North Carolina’s mandatory death sentence for first-degree murder was unconstitutional.

300. Dahlstrom et al., *supra* note 299, at 14 tbl. 1.

301. *Id.* at 15. “Improvement” or “deterioration” involved a shift between typological categories of psychological functioning. The authors qualified the finding, though, pointing out that such shifts between categories are not uncommon and that some shifts took place between relatively similar typologies. *Id.* at 12–14.

those of others. Thus, we are likely to make inaccurate evaluations of what life on death row “must be like.” Despite our intuitions about the horrors of life on death row, and despite the ease with which terms like “psychological torture” can be used, it is crucial to obtain data on the issue so that our evaluations of such life are accurate.

Again, let me be explicit. I do not suggest that death row is pleasant, or that hedonic adaptation means that inmates somehow begin to enjoy their confinement. Physical problems such as crowding, poor food, lack of physical exercise, and others,<sup>302</sup> all serve to exacerbate psychological problems. Further, psychological and physical abuse by guards certainly leads to problems, may be grounds for § 1983 claims, and should be stopped.<sup>303</sup> But it is clear that few data exist on death row prisoners’ psychology and their adaptability, and this approach may be a useful opportunity to address that dearth. Simply having a court or commentator (or Camus) say that prisoners suffer “psychological torture” does not make it so. Indeed, that is in part what the affective forecasting literature shows, that our intuitions about our own and others’ emotional reactions and experiences are not always correct. Equally, of course, simply alluding to the hedonic adaptation phenomenon does not mean that we can ignore physical problems and psychological dysfunction on death row when they occur. What the data that do exist suggest is that courts should not simply say that the death environment itself is per se “psychological torture,” or that it will invariably lead to some sort of psychological dysfunction.<sup>304</sup> These are far from being “immutable characteristic[s]” of life on death row.<sup>305</sup>

Indeed, this is what Justice Stevens emphasized in his *Lackey* dissent, the importance of obtaining helpful data.<sup>306</sup> In his view, such data would come from the analyses of lower state and federal courts.<sup>307</sup> Given the importance of, and the

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302. Ward, *supra* note 257, at 38–39 (“Death row residents typically experience a lack of exercise, poor diet, close quarters, social isolation, no educational or work programs, strained family relations, and family visits which are infrequent and burdened with security restrictions. These conditions are sufficiently different from those in the general prison population to warrant civil rights litigation challenging prison conditions peculiar to death row.”) (footnote omitted).

303. See Bonta & Gendreau, *supra* note 252, at 361 (“When inmates are dealt with capriciously by management or individual custodial officers, psychological stress can be created even in the most humane of prison environments.”); Johnson, *supra* note 260, at 163–70 (detailing tensions between prisoners and guards).

304. Cf. Haney, *supra* note 281, at 132 (“[B]etter-run and relatively more benign supermax prisons will produce comparatively fewer . . . negative psychological effects, and the worse run facilities will produce comparatively more.”).

305. Hedges, *supra* note 241, at 603.

306. *Lackey v. Texas*, 514 U.S. 1045, 1047 (1995) (Stevens, J., dissenting from denial of certiorari) (“Petitioner’s claim, with its legal complexity and its potential for far-reaching consequences, seems an ideal example of one which would benefit from such further study.”).

307. *Id.* (encouraging “state and federal courts to serve as laboratories in which the issue receives further study before it is addressed by [the Supreme] Court”) (citation and quotation marks omitted). The focus on “data” that come from courts is similar to a statement by Justice Blackmun in *United States v. Leon*, 468 U.S. 897, 928 (1984) (Blackmun, J., concurring) (noting that an “empirical judgment . . . necessarily is a provisional one. . . . If it should emerge from experience that . . . the good faith exception results in a material change in police compliance . . . [then] we shall have to reconsider what we have undertaken here. The logic of a decision that rests on untested predictions . . . demands no less.”) (emphasis added).

controversy over, this topic, I would also suggest more empirical research into the experience of prisoners on death row.<sup>308</sup>

### 3. Judgments Regarding Sexual Harassment

The previous sections outlined some applications of the affective forecasting literature to civil damage awards and to judgments of “death-worthiness.” The findings are also relevant, however, in the narrower context of culpability, particularly in the area of certain sexual harassment judgments, such as whether a company should be excused from liability because an alleged victim did not make use of some grievance procedure that the company provides.

For instance, a plaintiff’s delay in reporting harassment sometimes leads to a judgment that her delay was unreasonable under the circumstances, or even that no harassment occurred. In some circumstances, such a finding may qualify as a defense to vicarious liability for an employer.<sup>309</sup> Specifically, this *Faragher* affirmative defense is available where an employer has taken no tangible employment action, and has “exercised reasonable care to prevent and correct promptly any sexually harassing behavior.”<sup>310</sup> Successfully pleading such an affirmative defense will lead to a grant of summary judgment in the defendant’s favor.<sup>311</sup> A plaintiff may thus be unsuccessful because of the court’s perception that she unreasonably failed to take advantage of complaint procedures or other provisions in a company’s established antiharassment policy.<sup>312</sup>

This perception, however (and the ensuing judgment that as a matter of law harassment did not occur) may be based on a failure to consider alternative reasons why women might not make use of such procedures when they are afforded.<sup>313</sup> Thus, conventional understandings of how someone subjected to alleged harassment “should” or “would” react often form the basis for the ensuing legal judgments about

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308. Comparisons with matched inmates sentenced to life imprisonment could only aid such analysis. *Cf.* Otnow Lewis et al., *supra* note 252, at 839 (noting desirability of studying “a group of murderers found guilty of similar crimes but not condemned to death”); *id.* at 844 (noting question “whether death row inmates differ clinically or in other ways from similarly violent individuals who receive less harsh sentences”).

309. *E.g.*, *Faragher v. City of Boca Raton*, 524 U.S. 775, 807 (1998).

310. *Id.* at 807–08.

311. *Cf.* Theresa M. Beiner, *Sex, Science and Social Knowledge: The Implications of Social Science Research on Imputing Liability to Employers for Sexual Harassment*, 7 WM. & MARY J. WOMEN & L. 273, 331 (2001) (noting that many Title VII cases, not only ones involving vicarious liability, are resolved on summary judgment).

312. Beiner, *supra* note 311, at 286–88 (reviewing cases).

313. *See* Joanna L. Grossman, *The Culture of Compliance: The Final Triumph of Form over Substance in Sexual Harassment Law*, 26 HARV. WOMEN’S L.J. 3, 51–52 & nn. 291–301 (2003) (reviewing such alternative reasons, such as retaliation, ostracization, or self-blame); Linda Hamilton Krieger, *Employer Liability for Sexual Harassment—Normative, Descriptive, and Doctrinal Interactions: A Reply to Professors Beiner and Bisom-Rapp*, 24 U. ARK. LITTLE ROCK L. REV. 169, 191–92 (2001) (reviewing such alternative reasons, such as humiliation or fear of retaliation); *cf.* Deborah L. Rhode, *Sexual Harassment*, 65 S. CAL. L. REV. 1459, 1461 (1992) (suggesting that “the failure to complain is often taken as evidence that the abusive conduct didn’t happen”).

the merits of that person's allegations.<sup>314</sup> This is so for public opinion as well; commentators often point to the Anita Hill hearings to illustrate how the public treats questions about the responses of women subjected to harassing behavior.<sup>315</sup>

How does this connect with the affective forecasting literature? In a perceptive study, Professors Woodzicka and LaFrance compared women's predictions of how they would respond to sexual harassment during an interview with women's actual emotions and behaviors when they experienced that harassment.<sup>316</sup> First, women were asked to imagine their emotional and behavioral responses to a hypothetical job interview at which a male interviewer asked improper, allegedly sexually harassing questions.<sup>317</sup> Approximately two-thirds of the women in the study (Study 1) reported that they would confront the interviewer as to the impropriety of his questions (62%). Approximately two-thirds of the women reported that they would refuse to answer at least one question (68%).<sup>318</sup> About a quarter of respondents (27%) said that they would feel angry in response to the questions; only 2% imagined feeling afraid as a result.<sup>319</sup>

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314. *E.g.*, *Woods v. Delta Beverage Group, Inc.*, 274 F.3d 295, 301 (5th Cir. 2001) ("As a matter of law . . . [a] reasonable woman experiencing the type of harassment complained of . . . would not have felt compelled to resign.").

315. *See* Beiner, *supra* note 311, at 273–75.

316. Julie A. Woodzicka & Marianne LaFrance, *Real Versus Imagined Gender Harassment*, 57 J. SOC. ISSUES 15 (2001).

317. *Id.* at 20–21. The questions were as follows: "(1) Do you have a boyfriend? (2) Do people find you desirable? (3) Do you think it is important for women to wear bras to work?" *Id.* The authors actually did not examine whether the questions asked satisfied a legal definition of harassment. Rather, in pre-testing questions the authors asked a pilot sample (thirty-nine women) to rate the degree to which they perceived the question as sexual harassing and the degree to which they perceived the question simply as surprising to find in a job interview). *Id.* at 22.

In fact, it is not clear that the questions legally qualified as sexual harassment. Certainly, federal law (Title VII) prohibits discrimination based on gender, 42 U.S.C. 2000(e-2) (2000 & Supp. I. 2004), and sexual harassment is a form of such sex discrimination. *Meritor Savings Bank, FSB v. Vinson*, 477 U.S. 57 (1986). Under *Meritor*, "a plaintiff may establish a violation of Title VII by proving that discrimination based on sex has created a hostile or abusive work environment." *Id.* at 66. Such harassment must be so "severe or pervasive" as to alter the conditions of the victim's employment. *Id.* at 67. The case law is not clear whether such interview questions alone may constitute such severe or pervasive harassment that it creates the necessary "hostile working environment." *Compare* *Shaver v. Dixie Trucking Co.*, No. 97-1954, 1999 WL 321388 (4th Cir. May 21, 1999) (affirming grant of summary judgment to defendant, agreeing that supervisor's placing his hand on plaintiff's knee during job interview, along with other "obviously unpleasant" and "inappropriate" conduct such as hugs, did not rise to the "severe or pervasive" level), *with* *Cuesta v. Tex. Dep't of Criminal Justice*, 805 F. Supp. 451, 458 (W.D. Tex. 1991) (awarding nominal damages to plaintiff and attributing knowledge to parole board for supervisor's harassing conduct, where supervisor "routinely asked inappropriate questions during interviews").

Resolving this substantive issue, however, is beyond the scope of this Article. Moreover, none of this should be construed as invalidating the authors' more general point: substantial discrepancies exist between hypothetical and actual reactions to potentially illegal or improper interview questions.

318. Woodzicka & LaFrance, *supra* note 316, at 21.

319. *Id.* at 21.

The authors then conducted a second study in which fifty women in fact experienced a research assistant job interview involving such improper questions, interspersed with thirteen more standard questions (e.g., “What do you like about research?” and “What jobs or volunteer experience have you had?”).<sup>320</sup> These women’s emotional and behavioral reactions were compared to those predicted by the respondents from Study 1.

In hindsight, the study’s results will not be surprising. None of the fifty women in Study 2 refused to answer; none reported the question to the interviewer’s supervisor; none left the interview; none responded that such a question was not the interviewer’s business. Most of the women simply responded to the questions.<sup>321</sup> More directly relevant for present purposes, 40% of respondents reported feeling some level of fear (compared to 2% of predictors), while only 16% reported feeling angry (compared to 27% of predictors).<sup>322</sup> Clearly, those imagining such an interview were unable to accurately predict the emotional reactions of those actually participating in it.

Judgments by judges or juries about the reasonableness of a sexual harassment plaintiff’s perception of the allegedly harassing activity,<sup>323</sup> or about the reasonableness of her reactions,<sup>324</sup> are crucial in evaluating the validity of such allegations. “Perhaps if juries and jurists better understood the intimidation created by sexual harassment, they might be less likely to blame women who do not respond directly to the harasser.”<sup>325</sup>

#### 4. Litigants’ Emotional Expectations

Finally, the affective forecasting literature may be relevant to whether parties enter into the courtroom at all, though the phenomenon may have contradictory implications. That is, inaccurate predictions may in some contexts lead to an increased probability of litigation, but in other contexts may lead to fewer decisions to litigate.

In particular, commentators have recently begun to note the absence of emotions in current models explaining parties’ decisions to litigate, and the important role emotional factors actually play in such decisions.<sup>326</sup> These scholars document the role

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320. *Id.* at 22. In another condition, three “control” questions were interspersed with the thirteen standard questions: “(1) Do you have a best friend? (2) Do people find you morbid? (3) Do you think it is important for people to believe in G[-]d?”) *Id.* Note that the third control question could itself be inappropriate under Title VII, because of the potential to discriminate on the basis of religion.

321. *Id.* at 25 tbl. 1.

322. *Id.* at 21, 25.

323. Blumenthal, *A Meta-Analytic Review*, *supra* note 210; Patricia A. Frazier et al., *Social Science Research on Lay Definitions of Sexual Harassment*, 51 J. SOC. ISSUES 21 (1995); Maria Rotundo et al., *A Meta-Analytic Review of Gender Differences in Perceptions of Sexual Harassment*, 86 J. APPLIED PSYCHOL. 914 (2001); Richard L. Weiner & Linda E. Hurt, *An Interdisciplinary Approach to Understanding Social Sexual Conduct at Work*, 5 PSYCHOL., PUB. POL’Y & L. 556 (1999).

324. Beiner, *supra* note 311.

325. Woodzicka & LaFrance, *supra* note 316, at 26.

326. See Ward Farnsworth, *Do Parties to Nuisance Cases Bargain After Judgment? A Glimpse Inside the Cathedral*, 66 U. CHI. L. REV. 373 (1999); Guthrie, *Regret Aversion*, *supra* note 44; Peter H. Huang & Ho-Mou Wu, *Emotional Responses in Litigation*, 12 INT’L. REV. L. & ECON. 31 (1992).

of emotion in influencing or even determining litigation and settlement behavior. Ward Farnsworth, for instance, has identified the profound impact of litigants' emotions on their decisions whether to bargain efficiently after a court decision is reached.<sup>327</sup> Specifically, Professor Farnsworth reviewed twenty nuisance cases that had proceeded to judgment. Traditional law and economics doctrine—the Coase Theorem—suggests that in at least some of these cases, the parties should bargain around the court's ruling in order to allocate the relevant entitlement most efficiently. In not one of these twenty cases, however, did parties bargain.<sup>328</sup> Professor Farnsworth interviewed their attorneys to find out why. According to counsel, such non-Coasian behavior stemmed primarily from “bad blood” between the parties;<sup>329</sup> the litigants simply disliked each other so much that they refused to deal with each other after the judgment.<sup>330</sup>

Similarly, Huang and Wu have demonstrated through econometric modeling how emotion can drive parties to litigate.<sup>331</sup> They show that anger or pride may lead to increased frequencies of trials, depending in part on parties' beliefs and expectations about the other party's behavior, beliefs, and emotions. For instance, a defendant expecting a plaintiff not to file a particular suit who is then presented with a suit (especially a suit solely designed to extract a settlement), may be “enrage[d]” by the plaintiff's actions, and in “a fit of anger, such a defendant would go to trial in order to ‘see that justice is done.’”<sup>332</sup> Conversely, a plaintiff “outraged by an unexpected tort would bring suit even when that suit has negative expected wealth value,” but she “would not bring suit if that tort had been expected.”<sup>333</sup> More broadly, they suggest that emotional factors involving beliefs and expectations about other parties may lead to an increased level of litigation, in part to vindicate a party's own emotional states.

Frank Cross has made analogous points, pointing to “irrational” litigants' desires for vengeance and vindication of reputation, as well as other “highly emotional issues,” as noneconomic grounds for the pursuit of litigation that will probably prove financially unrewarding.<sup>334</sup> Robert Solomon similarly suggests that “the presence of anger, resentment, and vindictiveness is the motivating force behind the persistence, the obstinacy, the economic irrationality, and the ruinousness of a great many lawsuits.”<sup>335</sup> Finally, others have pointed to the desire of many litigants to have their “day in court,” seeking the satisfaction of presenting their side of the story regardless of the trial's outcome.<sup>336</sup>

327. Farnsworth, *supra* note 326.

328. *Id.* at 384.

329. *Id.* at 388, 407, 430, 436.

330. *Id.* at 384 (“[I]n almost every case the lawyers said that acrimony between the parties was an important obstacle to bargaining.”).

331. Huang & Wu, *supra* note 326, at 36.

332. *Id.*

333. *Id.* at 39.

334. Frank B. Cross, *In Praise of Irrational Plaintiffs*, 86 CORNELL L. REV. 1, 19–22 (2000) (reviewing emotional and other noneconomic grounds for “irrational” pursuit of litigation).

335. Robert C. Solomon, *Justice v. Vengeance: On Law and the Satisfaction of Emotion*, in *THE PASSIONS OF LAW* 123, 135 (Susan A. Bandes ed., 1999).

336. Cross, *supra* note 334, at 19 (citing Deborah R. Hensler, *Resolving Mass Toxic Torts: Myths and Realities*, 1989 U. ILL. L. REV. 89, 99 (The “most frequently cited objective of lay litigants in adjudicatory proceedings was to ‘tell my side of the story . . . .’”)); Roy D.

In each of these examples, overestimates of the satisfaction or emotional vindication to be derived from litigation may lead parties to trial when they otherwise “should” either settle or not even initiate litigation. Even paying heed to “irrational” plaintiffs’ desire to seek emotional, rather than monetary, recompense at trial, plaintiffs may simply be incorrect about the amount of satisfaction they will derive.

Some indication of this is apparent in research conducted by Randall Bezanson and colleagues on actual plaintiffs bringing defamation suits.<sup>337</sup> As part of a larger research project, Professor Bezanson noted the importance for libel plaintiffs of noneconomic motives to sue, such as restoring reputation and vengeance.<sup>338</sup> Although a substantial majority of plaintiffs lost in court, about 50% of losing plaintiffs nevertheless felt that the lawsuit had accomplished one of those goals.<sup>339</sup> But despite such feelings, fully two-thirds of plaintiffs expressed “dissatisfaction” or “extreme dissatisfaction” with their experience with the libel suit.<sup>340</sup> Thus, although the majority of plaintiffs brought their libel suit to obtain non-economic relief, and reported a sense of having achieved such relief, most plaintiffs nevertheless reported feelings emotionally dissatisfied with their experience. Many were frustrated with their experience with the judicial system, and almost 10% were “angry and bitter” about it.<sup>341</sup> In the words of the article title, “what plaintiffs wanted” was quite distinct from “what they got.”

These data are limited and my comments here are clearly inferential. Evidence that plaintiffs who *won* their suits nevertheless expressed dissatisfaction with their experience and/or did not achieve what they had hoped would be far clearer evidence for my assertions; however, the authors did not provide specific data on the winners. As a more general point, though, it seems that when plaintiffs expect to recover emotional satisfaction instead of or in addition to money, they may be wrong. If that is so, then potential plaintiffs’ mispredictions of their emotional reactions to winning a lawsuit may lead to overlitigating such suits.

On the other hand, there is also the possibility of underlitigation. Especially relevant here is the recent “Regret Aversion Theory” of litigation proposed by Chris Guthrie.<sup>342</sup> Professor Guthrie suggests that contrary to traditional law and economics models, emotions play an important part in litigation decisions. In particular, people make choices so as to minimize the unpleasant feeling of regret over having missed what they might perceive as a better outcome. Professor Guthrie suggests that people

Simon, Jr., *The Riddle of Rule 68*, 54 GEO. WASH. L. REV. 1, 63 (1985) (noting that even when settling a lawsuit would be more favorable than a trial outcome, plaintiffs may want to feel that they have had their “day in court”).

337. Randall P. Bezanson, *The Libel Suit in Retrospect: What Plaintiffs Want and What Plaintiffs Get*, 74 CAL. L. REV. 789 (1986). A more extended discussion of the research appears in RANDALL P. BEZANSON ET AL., *LIBEL LAW AND THE PRESS* (1987).

338. Bezanson, *supra* note 337, at 791. Approximately 29% of plaintiffs sought vengeance against, or punishment of, the media; 30% sought to restore their reputation. BEZANSON ET AL., *supra* note 336, at 261. Another 19% of plaintiffs sought to stop further publication of the libelous material; approximately 22% sought monetary damages. *Id.*

339. Approximately 41% of losing plaintiffs felt that their reputation had been defended by bringing the suit; approximately 10% felt that the lawsuit had punished the media. BEZANSON ET AL., *supra* note 337, at 261.

340. Approximately 34% of plaintiffs felt “dissatisfied;” approximately 31% felt “extremely dissatisfied.” *Id.* at 262.

341. Bezanson, *supra* note 337, at 795 tbl.2.

342. E.g., Guthrie, *Regret Aversion*, *supra* note 44, at 45.

anticipate the possibility of feeling regret, and make choices about their conduct that will reduce or preclude the possibility. Specifically, potential litigants anticipate the possibility of feeling postlitigation regret, and thus try to minimize that possibility.<sup>343</sup> Because litigants who settle before a trial decision do not learn what they would have recovered at trial, whereas those who reject settlement do, Professor Guthrie's "Regret Aversion Theory" posits that litigants will choose settlement over trial to avoid feelings of regret associated with learning after trial that they should have settled.<sup>344</sup>

Professor Guthrie tested this hypothesis in two empirical studies, providing study participants with scenarios describing hypothetical actors who had to decide whether to bring a lawsuit. One potential plaintiff made her choice in a "traditional" jurisdiction, where "the litigant will not learn what would have happened at trial if she settles the case."<sup>345</sup> The other made her choice whether to sue in a "regret jurisdiction," in which "the judge is required, upon learning that the parties have reached an out-of-court settlement, to inform the parties of what he would have awarded."<sup>346</sup> In that jurisdiction, therefore, the litigant learns what would have happened at trial if she had settled the case. Professor Guthrie predicted that litigants pursuing their cases in a traditional jurisdiction would be more inclined to settle than those litigating in a regret jurisdiction, because settling would avoid the possibility of regret posttrial.<sup>347</sup> Results supported his predictions. In both studies, participants overwhelmingly predicted that the individual in the "traditional" jurisdiction would be more likely to settle, in order to avoid experiencing regret.<sup>348</sup>

The connection to the affective forecasting literature is clear. If, all else being equal, litigation decisions rely on anticipated regret, then inaccuracies in making such predictions may lead some people to avoid litigation that will in fact not make them feel as negative as they expect. Professor Guthrie notes this problem of inaccurate predictions, citing some of the literature discussed here, but does not discuss it at length.<sup>349</sup> He does, however, make points consonant with the discussion of "hedonic adaptation" and the "psychological immune system."<sup>350</sup> Specifically, he suggests that even if litigants do make accurate predictions, counsel should emphasize that clients' regret may "dissipate, change, and hopefully even disappear in time."<sup>351</sup> Attorneys should remind clients who hesitate because of anticipated regret that they possess "the psychological wherewithal to dampen regretful feelings associated with an unfortunate litigation decision."<sup>352</sup>

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343. *Id.* at 72–73.

344. *Id.* at 73.

345. *Id.*

346. *Id.* at 73–74.

347. *Id.*

348. *Id.* at 75, 78–79.

349. *Id.* at 85–86 ("[I]ndividuals are notoriously bad at predicting how they will feel in the future.") (citing Kahneman, *supra* note 55, at 121–22, and Brickman et al., *supra* note 65, at 926).

350. *Id.*

351. *Id.* at 86.

352. *Id.* at 86–87.

Professor Guthrie acknowledges methodological limitations on his study such as external validity issues,<sup>353</sup> but contends that his study is nevertheless an example of “the most reliable means of establishing the impact of a given variable on behavior,” and that its results “provide[] ample support for the Regret Aversion Theory.”<sup>354</sup> He does not discuss one limitation, however, that is relevant to the affective forecasting discussion: his design involved perceivers predicting hypothetical litigants’ actions, rather than mock (or actual) litigants deciding whether to litigate or settle under the potentially regret-inducing circumstances.<sup>355</sup> Although this discrepancy limits the direct claims to be made about the Regret Aversion Theory, it is hardly fatal to the theory itself. Moreover, it emphasizes the tension discussed throughout this Article between predictions of another’s behavior based on perceived reactions to future emotional stimuli, and that actor’s actual behavior in response to such stimuli. It also highlights additional empirical research to be done on the theory, and the close connection that can be made between the theory and the affective forecasting literature discussed here.

Recent experimental evidence lends support to the idea that individuals overestimate the amount of regret they themselves will feel in response to a variety of events.<sup>356</sup> If people do, in fact, overestimate the amount of regret they would feel after losing a case, and thus settle the case rather than risk feeling the regret, then people may be avoiding litigation they otherwise “should” engage in and settling cases that they “should” bring to trial. Obviously, such prescriptive claims based on the amount of regret actually felt ignore other aspects that might lead to settling or litigating, not least the strength of the case and other “risk” factors such as the amount of money at stake. But all else being equal, where litigation or settlement decisions are based on a predicted amount of regret, those decisions may be objectively inaccurate and more cases may be settled on that basis than otherwise should.

This discussion highlights what many of these researchers have noted: any analysis of litigation decisions that rests solely on economic criteria may be impoverished. Incorporating emotions into such analysis, however, leads to apparently divergent results.<sup>357</sup> Further empirical research into the decisionmaking of both mock and actual litigants will help tease apart the role of emotions in such decisions.

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353. *Id.* at 80. Another “limitation” he acknowledges, the use of a within-subjects design, need not necessarily be thought of as such; under certain circumstances it can be entirely appropriate. *E.g.*, Blumenthal, *supra* note 14, at 12 n.81 (discussing pros and cons of within-subject designs).

354. Guthrie, *Regret Aversion*, *supra* note 44, at 81.

355. *Id.* at 73 (“[S]ubjects read about two litigants who must choose to settle or go forward with trial. . . . [And] were asked to indicate which of the two litigants would be most likely to settle.”).

356. Daniel T. Gilbert et al., *Looking Forward to Looking Backward: The Misprediction of Regret*, 15 *PSYCHOL. SCI.* 346 (2004).

357. *See* Huang & Wu, *supra* note 326, at 41 (noting that anger and pride may lead to increased frequency of litigation, but fear, anxiety, and similar emotions may lead to decreased frequency).

*B. Applications Outside the Courtroom*

Each of the examples illustrated above largely underappreciated implications of affective forecasting research for the trial context. Courts and commentators have been more likely to note at least the possibility of inaccurate predictions of future emotions in contexts outside the courtroom, in particular, in health law and biomedical contexts. Indeed, in spheres such as surrogate parenting, this recognition has already had clear consequences for the substantive law.<sup>358</sup> In this Part, I document the relevance of the affective forecasting literature to a number of these areas. I divide the discussion into start-of-life topics (e.g., surrogate parenting), end-of-life topics (e.g., euthanasia), and mid-life topics (e.g., informed consent). Each of these areas, of course, involves substantial, at times rancorous, policy debate and discussion. My goal here is not to enter into the voluminous substantive debate, but rather to highlight the relevance of the affective forecasting literature. Still, I do draw some preliminary conclusions, and discuss some of the normative issues raised by applying the research to these topics.<sup>359</sup>

1. Start-of-Life Issues<sup>360</sup>

An early example of the relevance of affective forecasting errors and the difficulty of identifying “true” preferences was raised in the study of women’s preferences for anesthesia before, during, and after labor and delivery.<sup>361</sup> In other start-of-life contexts, however, such as surrogate mothering and frozen embryos, the affective forecasting data have important consequences as well.

## a. Surrogate Mothering

The fact that individuals fail to accurately predict their future emotions, and thus may change their minds, has been recognized as highly relevant to the enforceability of surrogate mothering contracts. As with the euthanasia debate discussed below, the affective forecasting data lend empirical support to those stressing the legal implications of changed minds. As with other topics, however, this possibility may cut both for and against enforceability, a nuance that courts and commentators have not yet recognized.

The background of the debate over surrogate parenting contracts is well known. Briefly, some states prohibit the enforcement of such agreements outright,<sup>362</sup> while others prohibit them when they involve monetary compensation to the surrogate.<sup>363</sup>

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358. *See infra* notes 365–67.

359. *See also infra* Part III.

360. I use this term as a convenient categorization, with no political implications intended.

361. Christensen-Szalanski, *supra* note 96.

362. *See* MICH. COMP. LAWS ANN. § 722.855 (West 2002) (“A surrogate parentage contract is void and unenforceable as contrary to public policy.”); N.D. CENT. CODE § 14-18-05 (2004) (“Any agreement in which a woman agrees to become a surrogate or to relinquish that woman’s rights and duties as parent of a child conceived through assisted conception is void.”).

363. *See* KY. REV. STAT. ANN. § 199.590(4) (Michie 1998) (same, where agreement “would compensate a woman for her artificial insemination and subsequent termination of

Where surrogacy contracts are not prohibited, courts tasked with deciding the enforceability of such contracts have disagreed. Following the New Jersey Supreme Court's *In re Baby M.* decision,<sup>364</sup> emphasis is often placed on whether the contract allows the surrogate mother to reverse her decision about relinquishing the baby upon birth.

Specifically, the possibility that a surrogate mother might change her mind based on the unpredicted emotions involved with pregnancy and giving birth plays an important role in whether a surrogate parenting contract will be enforceable. For instance, concern may exist that a woman will underestimate the emotional bond that develops as she carries a child. Such concern has led to some state statutes providing that only a woman who has previously given birth may enter into a surrogacy contract.<sup>365</sup> Other states have reached this result through their courts.<sup>366</sup> More general concern about emotions led some states to require an "evaluation" of a woman's ability to adjust to the terms of such a contract, meaning, presumably, the requirement that she relinquish the baby to the intended parents.<sup>367</sup>

The link to affective forecasting is clear. Recognizing that a surrogate mother may not realize the strength of the emotional bond that will grow between her and the child she will carry, connects closely with the data showing that people often inaccurately predict the strength of their emotional reactions to future events. On one approach, recognizing that emotions might change justifies (to some) the characterization of such a change as changed circumstances that should void a contract. From another view, the failure to fully predict or understand one's future emotions vitiates the fully informed consent necessary to the formation of a valid contract.<sup>368</sup> In either event, because emotions are uncontrollable, courts and commentators suggest that the potential that emotions will be mispredicted and a surrogate mother will change her mind about her

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parental rights to a child born as a result of that artificial insemination."); LA. REV. STAT. ANN. § 9:2713 (West 1991) (Where surrogate agrees to carry fetus and relinquish child for any "valuable consideration," agreement is "void and unenforceable as contrary to public policy.").

364. *In re Baby M.*, 537 A.2d 1227 (N.J. 1988).

365. N.H. REV. STAT. ANN. § 168-B:17(V) (2000) ("No woman may be a surrogate, unless she has a documented history of at least one pregnancy and viable delivery."); VA. CODE ANN. § 20-160(B)(6) (Michie 2004) (requiring that the prospective surrogate "is married and has had at least one pregnancy, and has experienced at least one live birth"); *see also* NATIONAL CONFERENCE OF COMMISSIONERS ON UNIFORM STATE LAWS, UNIFORM STATUS OF CHILDREN OF ASSISTED CONCEPTION ACT § 6(b)(6) (1998) (requiring that prospective surrogate have had "at least one pregnancy and delivery").

366. *E.g.*, *R.R. v. M.H.*, 689 N.E.2d 790, 797 (Mass. 1998) (stating one factor that might be important in deciding the enforceability of surrogacy agreement is a requirement that the surrogate "have had at least one successful pregnancy").

367. N.H. REV. STAT. ANN. § 168-B:18(II)(b) (2000) (prospective surrogate mother must have nonmedical evaluation assessing her ability "to adjust to and assume the inherent risks of the contract").

368. *In re Baby M.*, 537 A.2d at 1248 ("Under the contract, the natural mother is irrevocably committed before she knows the strength of her bond with her child. She never makes a totally voluntary, informed decision, for quite clearly any decision prior to the baby's birth is, in the most important sense, uninformed . . ."). *But cf.* Louis Michael Seidman, *Baby M and the Problem of Unstable Preferences*, 76 GEO. L.J. 1829, 1831 (1988) ("Both sides of the bargain had full information about the nature of the transaction . . .").

agreement to relinquish a baby should not prohibit her from doing so.<sup>369</sup> Thus, some courts will not enforce a surrogacy contract that does not provide for the possibility that the surrogate will change her mind.

Commentators have pointed out, however, that such an emotional change may in fact be foreseeable. The affective forecasting literature does demonstrate that it might occur. Moreover, changed emotions are probably more foreseeable to a woman who has previously given birth,<sup>370</sup> the very class of women to which some courts and legislatures restrict the pool of potential surrogates.<sup>371</sup> If so, under traditional contract doctrine, such a foreseeable change in circumstances may not excuse performance.<sup>372</sup> Indeed, foreseeing the possibility of emotional change might simply lead a potential surrogate mother to raise the price for her participation, compensating her for binding herself despite potential changed emotions.

Under this approach, factors that might be considered in assessing the enforceability of such a contract include the parties' relative information and the likelihood of "changed circumstances." With regard to each, the burden of such risks would seem to be better placed on the potential surrogate who is, presumably, better "in touch" with her emotions and more able to foresee emotional changes.<sup>373</sup> If a woman is uncomfortable incorporating such risks into a contract, a market approach suggests, then she simply need not become a party: "[p]ersons who believe that feelings about parenthood are too hard to predict need not enter binding agreements."<sup>374</sup>

369. See, e.g., Larry Gostin, *A Civil Liberties Analysis of Surrogacy Arrangements*, 16 L. MED. & HEALTH CARE 7, 13 (1988) ("Understandably, the gestational mother's feelings may change once she has nurtured the fetus, given birth to a human being whom she recognizes as part of herself and then holds, cares for, and comes to love."); Katha Pollitt, *The Strange Case of Baby M*, THE NATION, May 23, 1987, at 685 (In "areas of profound feeling, you cannot promise because you cannot know, and pretending otherwise would result in far more misery than allowing people to cut their losses.") (quoted in Coleman, *supra* note 156, at 99).

370. Seidman, *supra* note 368, at 1831 ("[A]s an experienced mother, [the surrogate] presumably knew about the bonding that occurs between mother and infant . . ."). One New Jersey court, citing *In re Baby M*, recognized this as follows:

In this case, [the gestational mother] has previously had one child and therefore had an understanding of what is involved in carrying a pregnancy to term at the time she signed the contract. The problem case will present itself when a gestational mother changes her mind and wishes to keep the newborn. This may be more likely where a gestational mother has never had a child and is unfamiliar with the emotions and biological changes involved in a pregnancy. She will not be able to predict what her feelings will be towards the child she bears.

A.H.W. v. G.H.B., 772 A.2d 948, 953 (N.J. Super. Ct. Ch. Div. 2000).

371. See *supra* notes 365–66.

372. Shultz, *supra* note 35, at 349–51 ("[I]f the surrogate simply miscalculated how attached she would feel to this baby, the claim of excuse would be hard to sustain under existing contract doctrine."); see *infra* notes 385–86.

373. Shultz, *supra* note 35, at 349–51 ("Probably the agreement itself would be deemed to assign the risk of changed feelings to the surrogate, and if not, the surrogate would likely still be in the best position both to control and to foresee the change of heart, thereby eliminating the justification for excuse.") (footnotes omitted).

374. *Id.* at 349.

But this market approach is incomplete precisely because of the issues involved with affective forecasting. Although it takes into account the fact that emotions may change, it does not consider the fact the predictions of those future emotions may easily be inaccurate, which is the thrust of the affective forecasting research. The question is thus not upon whom to place the risk of changed emotions, but why such change should not constitute changed circumstances.<sup>375</sup> The affective forecasting data also demonstrate problems from an efficiency standpoint. Even if we foresee emotional “volatility” and thus incorporate additional costs into a contract to cover for it, our predictions of how different those emotions will be will probably be inaccurate. If so, the added costs may reflect this overestimate, thus rendering the contract inefficient.

On the other hand, what is infrequently recognized is that this potential inaccuracy also cuts against the current approach of affording leeway to surrogate mothers. That is, allowing a surrogate to change her mind and “escape” a contract may stem from courts’ (or policymakers’ or other third parties’) overpredictions of the emotional difficulty of relinquishing a child and of the subsequent pain of having separated. If that difficulty is less than predicted, one argument against the nonenforceability of such contracts would be diminished. Some support for this reading comes from examining the rate at which surrogate mothers actually seek to void a contract on these grounds. Available evidence suggests that this rate is in fact fairly low. By one count, “fewer than one percent of surrogate mothers try to keep the resulting child, which is analogous to the rates of ‘women who change their mind about sterilization or abortion.’”<sup>376</sup> Some primary research suggests that some surrogate mothers apparently “learn” not to attach to the unborn child.<sup>377</sup> Other researchers interviewing surrogate mothers noted that many have previously acted as surrogates before: in one study five out of seventeen mothers interviewed had done so,<sup>378</sup> in another study seven of nineteen had done so.<sup>379</sup> In the latter study of nineteen surrogates, five had difficulty relinquishing the child (a rate of about 26%), but only one had not relinquished the child at all.<sup>380</sup>

We may overestimate the emotional trauma surrogate mothers experience, or at least the “unbreakable bond” with the unborn child. Of course, this hardly means we should not protect against the possibility of such trauma. It is simply important to recognize the possibility, and recognize that the relevant data may point in different

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375. See also *infra* notes 408–09.

376. Amanda Mechell Holliday, Comment, *Who’s Your Daddy (and Mommy)? Creating Certainty for Texas Couples Entering into Surrogacy Contracts*, 34 TEX. TECH. L. REV. 1101, 1125 (2003) (citation omitted).

377. Hazel Baslington, *The Social Organization of Surrogacy: Relinquishing a Baby and the Role of Payment in the Psychological Detachment Process*, 7 J. HEALTH PSYCHOL. 57 (2002).

378. Melinda M. Hohman & Christine B. Hagan, *Satisfaction With Surrogate Mothering: A Relational Model*, 4 J. HUM. BEHAV. SOC. ENV’T 61, 66 (2001).

379. Eric Blyth, “I Wanted to Be Interesting. I Wanted to Be Able to Say ‘I’ve Done Something Interesting with My Life’”: Interviews With Surrogate Mothers in Britain, 12 J. REPROD. & INFANT PSYCHOL. 189, 191 (1994).

380. *Id.* at 195.

directions depending how they are applied. How to apply them is a policy decision that must be made by balancing the implications both for and against.<sup>381</sup>

At bottom though, the existing approach, rather than the “market approach” alluded to above, seems to better comport with psychological reality. That is, the market approach assumes that emotions are not only foreseeable and predictable, but are also controllable,<sup>382</sup> and for that reason places the burden on the surrogate.<sup>383</sup> As the discussion throughout makes evident, though, emotions are hardly controllable and are poorly predicted. Hence, even the foreseeability of their change need not bind an individual.<sup>384</sup>

Even if emotions are not seen as controllable, the market approach simply places them in the same framework as other business circumstances, the possibility of whose changes are typically placed on the obligor under the contract.<sup>385</sup> That is, an obligor is expected to fulfill a contract and perform, even if he is not at fault and “even if circumstances have made the contract more burdensome or less desirable than he had anticipated.”<sup>386</sup> Only where some extraordinary event occurs to make an obligor’s performance “impracticable,” may that party discharge his duty and escape the contract. To some commentators, a party’s “emotional volatility” simply does not qualify as such an extraordinary event, and the surrogate should assume the risk of emotional change.

There are at least two responses to this approach, however. First, even under traditional contract doctrine, such substantial emotional change as would make a surrogate mother change her mind about relinquishing a baby may in fact qualify as the sort of “event the nonoccurrence of which was a basic assumption on which the contract was made,”<sup>387</sup> thus discharging her duty and excusing her performance. The

381. Cf. Mark Pettit, Jr., *Freedom, Freedom of Contract, and the “Rise and Fall”*, 79 B.U. L. REV. 263, 284–85 (1999) (“If legislators considering a bill to prohibit or regulate surrogacy contracts want to maximize freedom, should they consider the percentage of surrogate mothers that change their minds when the child is born?”).

382. Cf. *supra* notes 35–37.

383. See *supra* note 372.

384. One of the leading commentators on biomedical issues, John Robertson, typically advocates enforcing contracts. In the case of relinquishing a child, however, he has recognized, though perhaps not promoted, that:

Childbirth is such a major change in circumstances that one should not reasonably be held to foresee how one arguably would feel about child rearing until after birth has occurred. Having undergone the physical rigors and bonding of pregnancy and childbirth, women may have very different views about child rearing than when they made a preconception agreement to relinquish the child for adoption. Accordingly, they should be free to disavow the relinquishment terms of their prior contract.

John A. Robertson, *Prior Agreements for Disposition of Frozen Embryos*, 51 OHIO ST. L.J. 407, 421 (1990). But see, e.g., Richard A. Epstein, *Surrogacy: The Case for Full Contractual Enforcement*, 81 VA. L. REV. 2305 (1995) (arguing in favor of upholding surrogacy contracts in most circumstances).

385. See RESTATEMENT (SECOND) OF CONTRACTS § 261 (1979).

386. *Id.* ch.11, introductory note.

387. *Id.*

Introductory Note to the Restatement's section on impracticability illustrates the doctrine with a market example:

In contracting for the manufacture and delivery of goods at a price fixed in the contract, for example, the seller assumes the risk of increased costs within the normal range. If, however, a disaster results in an abrupt tenfold increase in cost to the seller, a court might determine that the seller did not assume this risk by concluding that the non-occurrence of the disaster was a "basic assumption" on which the contract was made.<sup>388</sup>

Similarly, even if a potential surrogate might foresee the possibility of emotional change, and even if she assumes the risk of that possibility, inaccuracies in predicting the intensity and duration of such change may analogize to that unforeseen, tenfold price increase that serves to discharge a duty under the contract.

Second, the Restatement also provides for a discharge where an existing circumstance, unknown to the obligor, makes her performance impracticable.<sup>389</sup> If, as the market approach suggests, the surrogate should bear the risks because it is she whose emotions might change, then the fact that she is already the person whose emotions will change in fact might serve as such an unrecognized but existing circumstance demonstrating impracticability.

Moreover, a discharge of duty under impracticability almost always involves some sort of change of mind, where what is involved is not actual impossibility. Take, for instance, the Restatement's example of a contract between *A* and *B* to carry *B*'s goods on *A*'s ship to a designated foreign port. A civil war then unexpectedly breaks out in that foreign country and the rebels announce that they will try to sink all vessels bound for that port.<sup>390</sup> Were *A* to refuse to perform, *A*'s duty to do so would be discharged under the Restatement approach, because the risk of injury is sufficient to make performance impracticable. Of course, *A* is simply changing his mind here about performing; trying to deliver is still *possible*. Were *A* to try to deliver and the vessel sunk, performance would *then* be impossible. Plausibly, however, the threat and risk involved in attempted delivery serve to excuse *A* from having to make the effort. The question of whether to discharge an obligor's duty under the contract, therefore, is the justification for the obligor's change of mind.

As in other contexts, that justification may simply stem from the subject matter of the contract.<sup>391</sup> In the frozen embryos context (discussed further below), affording more flexibility and autonomy to the contracting parties—for example, not simply binding them to an earlier agreement—stems from a reluctance to treat the embryos

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388. *Id.*

389. *Id.* § 266.

390. *See id.* § 261, cmt. d.

391. *E.g.*, E. ALLAN FARNSWORTH, CHANGING YOUR MIND: THE LAW OF REGRETTED DECISIONS x (1998) (suggesting otherwise, however, that it can be appropriate to bind oneself with advance contracts or agreements, also noting that contract law principles have been applied in contexts "far removed from the commercial setting in which those principles were typically spawned"); *see* George J. Annas, *The Shadowlands—Secrets, Lies and Assisted Reproduction*, 339 NEW ENG. J. MED. 935, 937 (1998) ("Do commerce, money, and contracts really have more to say about motherhood than pregnancy and childbirth?").

“merely” as property.<sup>392</sup> Similarly, a (plausible) disinclination to treat a gestating baby as analogous to changed market prices may legitimately lead to greater flexibility in evaluating the enforceability of surrogacy contracts. The circumstances where change of mind should allow the voiding of a contract are not unlimited, however, likely rendering fears of creating a slippery slope that would allow “mere” changes of mind to void any ordinary business contract unfounded.

#### b. Disposition of Frozen Embryos

As with surrogate parenting, the affective forecasting literature is relevant to decisions about the disposition of frozen embryos. The issues involved relate, as in surrogacy contracts, to whether parties should be bound by agreements about disposition made at Time<sub>1</sub>, when their choices or preferences are different at Time<sub>2</sub>. Courts presented with enforcing contracts regarding the disposition of frozen embryos are about evenly split. Two of the highest state courts to rule on the issue have held such contracts enforceable.<sup>393</sup> Another state court has ruled that an agreement between the parties to relinquish embryos to medical personnel was enforceable.<sup>394</sup> Two others have limited the enforceability of such contracts or rejected them outright.<sup>395</sup> Few states have dealt with the issue by legislation.<sup>396</sup>

Most assisted reproduction facilities require couples to provide written agreements designed to govern the future disposition of extra or unwanted frozen embryos under foreseeable circumstances.<sup>397</sup> Thus, the enforceability question, again, turns on whether to bind individuals (or a couple) to decisions made at one time about the disposition of cryopreserved embryos, either when circumstances change or when individuals otherwise change their mind about those previous decisions.

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392. THE N.Y. STATE TASK FORCE ON LIFE AND THE LAW, ASSISTED REPRODUCTIVE TECHNOLOGIES: ANALYSIS AND RECOMMENDATIONS FOR PUBLIC POLICY 319 (1998) [hereinafter ASSISTED REPRODUCTIVE TECHNOLOGIES] (“This contractual model of advance planning, however, assumes that individuals’ relationships with human embryos are equivalent to ordinary property interests, a view that is inconsistent with the special respect that embryos are owed.”).

393. *Kass v. Kass*, 696 N.E.2d 174, 182 (N.Y. 1998) (holding that parties’ agreement providing that upon divorce, embryos be donated for research purposes, should be presumed valid and binding); *Davis v. Davis*, 842 S.W.2d 588, 604 (Tenn. 1992) (stating that an existing agreement between the parties should be upheld).

394. *Cahill v. Cahill*, 757 So. 2d 465 (Ala. Civ. App. 2000). Specifically, the court ruled that the lower court was correct to decline to award the zygotes in question to either of the divorcing parties. *Id.* at 468.

395. *A.Z. v. B.Z.*, 725 N.E.2d 1051, 1059 (Mass. 2000) (holding unenforceable, because of changed circumstances, an agreement that embryos could be implanted after divorce); *J.B. v. M.B.*, 783 A.2d 707, 719 (N.J. 2001) (holding parties’ agreement should be enforced, “subject to the right of either party to change his or her mind”).

396. *But see* FLA. STAT. ANN. § 742.17 (West 1997).

397. *See, e.g.*, G. Pennings, *The Validity of Contracts to Dispose of Frozen Embryos*, 28 J. MED. ETHICS 295, 295 (2002); ASSISTED REPRODUCTIVE TECHNOLOGIES, *supra* note 392, at 298 (citation omitted).

A number of commentators argue in favor of precommitment, binding parties to the decisions they made in the advance contract.<sup>398</sup> These advocates emphasize at least two primary justifications for so binding a party. First, they note that the parties are fully informed of their options when they enter such an agreement, understanding the possibility of divorce, separation, unavailability, default on payment of storage fees, etc.<sup>399</sup> Second, they note that when one party changes his or her mind about what to do with a frozen embryo, the decision necessarily implicates or directly contradicts the preferences and desires of the other party. Additionally, the other party or parties may have substantially relied on the first party's decision as expressed in the advance agreement, either in entering into the agreement in the first place or in subsequent conduct. Applying traditional contract doctrine, these commentators argue that such "[d]etrimental reliance by others is a good reason for enforcing Time 1 expressions of Time 2 preferences despite one party's Time 2 objections."<sup>400</sup> Thus, proponents of this view place profound importance on informed consent and reliance.

Others are as strongly opposed to limiting decisionmaking freedom in this way.<sup>401</sup> At least one commentator has suggested treating the right to control the disposition of one's frozen embryos as an inalienable right that cannot be relinquished in advance.<sup>402</sup> Others distinguish advance agreements of this sort from those involved in terminal illness or loss-of-competency, pointing out that unlike the latter, in many frozen embryos cases there is no change in decisionmaking competency.<sup>403</sup> Yet others criticize the contract approach as dealing only with some of the issues in question, but ignoring others such as the "social consequences" that may follow legal and policy

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398. See Pennings, *supra* note 397, at 298; John A. Robertson, *Precommitment Issues in Bioethics*, 81 TEX. L. REV. 1849, 1870–72 (2003) [hereinafter Robertson, *Precommitment Issues*] (reviewing argument in favor of enforcing agreements for the disposition of frozen embryos); John A. Robertson, *Precommitment Strategies for Disposition of Frozen Embryos*, 50 EMORY L.J. 989, 1016–27 (2001) [hereinafter Robertson, *Precommitment Strategies*] (same); Jeremy L. Fetty, Comment, *A "Fertile" Question: Are Contracts Regarding the Disposition of Frozen Preembryos Worth the Paper upon Which They are Written?*, 2001 L. REV. MICH. ST. U. DETROIT C. L. 1001 (arguing in favor of enforcing agreements for the disposition of frozen embryos); Erik W. Johnson, Note, *Frozen Embryos: Determining Disposition Through Contract*, 55 RUTGERS L. REV. 793 (2003) (same).

399. Robertson, *Precommitment Issues*, *supra* note 398, at 1871.

400. *Id.* at 1872. As noted above, *see supra* note 384, Professor Robertson is flexible in some cases about when to adhere to previous contracts. Similarly, he recognizes that even in the frozen embryo context, other values, such as the best interests of a child, may outweigh the values of precommitment. Robertson, *Precommitment Issues*, *supra* note 398, at 1872.

401. Note, of course, that an individual in one sense restricts her own freedom to make future deals by changing her mind. Pettit, *supra* note 381, at 285.

402. Coleman, *supra* note 156, at 57–58.

403. *Id.* at 125 ("If it is inappropriate to enforce an advance directive over the objections of a patient who lacks decisionmaking capacity, it is even less appropriate to enforce a prior disposition decision over the objection of a person whose mental capacity is not in doubt."). See Pennings, *supra* note 397, at 298. Professor Pennings also notes that such frozen embryos agreements may have originated in the context of loss of decisionmaking capacity, but have since been extended to cover even cases not involving such loss. Pennings, *supra* note 397, at 295.

decisions regarding the disposition of frozen embryos.<sup>404</sup> Finally, as with the surrogacy contracts debate, criticism of the contractarian approach emphasizes the special nature of the subject of the contract, regardless of whether the frozen embryos are thought of as life or potential life.<sup>405</sup> The New York Task Force suggested that the contractual model of advance planning “fails to account for the importance of contemporaneous decision making in matters of reproductive choice.”<sup>406</sup> Another commentator highlighted the fundamental emotional nature of the issues involved, emphasizing that the “usual premises of bargaining, efficiency, and rationality generally do not hold for people embarking on a program of IVF.”<sup>407</sup>

Along these lines, one commentator has recognized that in the foreseeability context, an important distinction exists between the changed circumstances contract doctrine on the one hand, and the informed agreement approach on the other. Specifically, Professor Coleman has pointed out that “[p]rotecting individuals from commitments based on uninformed predictions about future events is not the same as invalidating contracts because of changed circumstances.”<sup>408</sup> He emphasizes that foreseeability—“recognizing what might happen in the future”—is importantly different from fundamental changes in emotional reactions, as well as from the concomitant difficulty recognizing how such “circumstances would feel if the situation actually occurs.”<sup>409</sup>

The affective forecasting literature takes up this reasoning and supports the latter, noncontractarian approach, allowing for the possibility that parties will change their mind based on changing emotions. The findings highlight the focal difficulty of enforcing Time<sub>1</sub> agreements, that they often poorly reflect a person’s or couple’s “true” feelings about disposition.<sup>410</sup> Of course, this statement raises the question of which is a party’s “true” feeling: that expressed at Time<sub>1</sub>, at the time of the advance agreement, or that expressed at Time<sub>2</sub>, the time at which a contemporaneous decision must be made. In light of the affective forecasting data, it makes more sense to see the Time<sub>2</sub> preference—which is generated in response to an actual event—as worthy of being privileged over the Time<sub>1</sub> preference—which was hypothetical, generated in response to an imagined event. Because individuals forecast reactions to hypothetical events so

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404. Annas, *supra* note 391, at 936 (“The courts are not simply affirming the contents of a contract but are implicitly making profound and wide-ranging decisions about the status of embryos, the interests of children, and the identifications and responsibility of their parents.”); Kimberly E. Diamond, *Cryogenics, Frozen Embryos and the Need for New Means of Regulation: Why the U.S. Is Frozen in Its Current Approach*, 11 N.Y. INT’L L. REV. 77, 97 (1998); *see also supra* note 400 (noting other interests that may be at stake).

405. The *Davis* court noted the embryos’ “potential for human life,” in assigning them to some “interim category” that was neither “‘persons’ nor ‘property.’” *Davis v. Davis*, 842 S.W.2d 588, 597 (Tenn. 1992).

406. ASSISTED REPRODUCTIVE TECHNOLOGIES, *supra* note 392, at 319.

407. Helene S. Shapo, *Frozen Pre-Embryos and the Right to Change One’s Mind*, 12 DUKE J. COMP. & INT’L L. 75, 103 (2002).

408. Coleman, *supra* note 156, at 98–99 n.209.

409. *Id.* at 99 n.209.

410. *Id.* at 119 (“before [IVF] treatment begins a couple has little way of knowing how they will feel about the embryos once they exist”); *see also infra* notes 515–16 and accompanying text.

inaccurately, the affective forecasting data illustrate the validity of privileging Time<sub>2</sub>, contemporaneous expressions of preference.

## 2. End-of-Life Issues: Euthanasia and Advance Directives

The possibility of changed minds also arises in discussions of euthanasia and advance directives. One hesitation about allowing euthanasia is the possibility that patients will change their minds, that is, that an interest in or preference for euthanasia (in whatever form—removal of life-sustaining measures, physician- or other-assisted suicide, or patient suicide<sup>411</sup>) may change between the time it is expressed and the time that euthanasia might be effected.<sup>412</sup> Other concerns arise in considering public support for various means of euthanasia. Another relates to the possibility that the preferences of someone making a decision about such action, whether a physician or someone designated by the patient, may not reflect the patient's true preferences. Of course, these issues arise in the context of living wills and advance directives more generally.<sup>413</sup>

Though commentators have primarily noted these difficulties in the abstract, some empirical evidence supports their concern. The New York State Task Force on Life and the Law, for instance, noted that typically, suicidal patients do not actually attempt or complete suicide. When they are given appropriate personal support and palliative care, most patients (again echoing the Brickman et al., study above) “adapt and continue life in ways they might not have anticipated. . . . [P]atients are able to sustain and cope with tremendous suffering as they approach death.”<sup>414</sup> Similarly, in the hospice context, although medical professionals rarely see terminally ill patients who wish to have assisted suicide or euthanasia, when they do, these patients usually change their mind when pain is controlled and they receive supportive hospice care.<sup>415</sup> The United States Supreme Court recognized such findings in declining to find a constitutional right to assisted suicide.<sup>416</sup>

411. Obviously there are differences among these means of effecting euthanasia; for present purposes, though, I group them together.

412. *E.g.*, Yale Kamisar, *Some Non-Religious Views Against Proposed “Mercy Killing” Legislation*, 42 MINN. L. REV. 969, 989 (1958).

413. *E.g.*, Sanford H. Kadish, *Letting Patients Die: Legal and Moral Reflections*, 80 CAL. L. REV. 857, 873–74 (1992). *See infra* notes 423–34 and accompanying text.

414. THE N.Y. STATE TASK FORCE ON LIFE AND THE LAW, *WHEN DEATH IS SOUGHT: ASSISTED SUICIDE AND EUTHANASIA IN THE MEDICAL CONTEXT* 178 (2d ed. 1997).

415. John Finnis, *Euthanasia, Morality, and Law*, 31 LOY. L.A. L. REV. 1123, 1142 (1998) (“The great majority of people who request euthanasia in hospices change their minds and come to value their last months or weeks of illness, severe though this often is.”); Jill A. Melchoir, Casenote, *The Quiet Battle for the Heart of Liberty—A Victory for the Cautious: Washington v. Glucksberg*, 117 S. Ct. 2258 (1997), 66 U. CIN. L. REV. 1359, 1366 (1998) (noting “inundat[ion]” by the media with “stories of patients who had wished to die but changed their minds”); Anissa C. Werner, Note, *The Michigan Legislature Persists in Prohibiting Assisted Suicide*, 77 U. DET. MERCY L. REV. 875, 924 (2000).

416. *Washington v. Glucksberg*, 521 U.S. 702, 730 (1997) (quoting HERBERT HENDIN, *SEDUCED BY DEATH: DOCTORS, PATIENTS AND THE DUTCH CURE* 24–25 (1997) as noting that suicidal, terminally ill patients “usually respond well to treatment for depressive illness and pain medication and are then grateful to be alive”).

The affective forecasting research lends further empirical support to critics of fully legalizing euthanasia. At least in the abstract, the research demonstrates the possibility that patients predicting how they might react when faced with the choice about euthanasia would in fact reject that option when presented with the actual decision. This type of decisionmaking would mirror, to some extent, the decisionmaking described above by women in labor.<sup>417</sup> The data go to instances where someone has predicted that she would (or would not) commit suicide or request euthanasia, or expressed a preference for (or against) suicide or euthanasia, when presented with some terminal illness, but nevertheless changes her mind when presented with such circumstances.<sup>418</sup>

There are at least two further examples of the relevance of the affective forecasting data to the question of legalizing euthanasia. First, Oregon's law allowing assisted suicide in fact allows for the possibility of changed feelings; an individual choosing assisted suicide must maintain that decision for fifteen days,<sup>419</sup> at the end of which time an attending physician must offer the patient the opportunity to change his or her mind.<sup>420</sup> But some research suggests that changing one's mind in these circumstances may take longer than fifteen days.<sup>421</sup> Second, although public support for euthanasia or physician-assisted suicide has increased dramatically in the twentieth century, it is

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417. Christensen-Szalanski, *supra* note 96. I do not mean, of course, that a patient who at Time<sub>1</sub> expressed a preference about whether to have life-sustaining measures taken to keep her alive if she entered a vegetative state might consciously "choose" differently if she entered that state at Time<sub>2</sub>. Cf. Nancy K. Rhoden, *Litigating Life and Death*, 102 HARV. L. REV. 375, 412–19 (1988) (discussing whether to adopt the viewpoint of the past or the present self in regard to directives about death); Shultz, *supra* note 35, at 383 n.285 ("Various commentators have discussed which self ought to control when a person expresses different opinions at different points in time.") (citing Rebecca Dresser, *Life, Death, and Incompetent Patients: Conceptual Infirmities and Hidden Values in the Law*, 28 ARIZ. L. REV. 373, 379–81 (1986) (arguing that an incompetent patient may be a different self than a competent patient who signed an advance directive)).

418. The data may also suggest that someone who pursued suicide or assisted suicide might have changed her mind under other circumstances.

419. OR. REV. STAT. § 127.840 § 3.06 (2003) (requiring patient to "reiterate the oral request to his or her attending physician no less than fifteen (15) days after making the initial oral request"); OR. REV. STAT. § 127.850 § 3.08 (2003) ("No less than fifteen (15) days shall elapse between the patient's initial oral request and the writing of a prescription.").

420. OR. REV. STAT. § 127.840 § 3.06 (2003) ("At the time the qualified patient makes his or her second oral request, the attending physician shall offer the patient an opportunity to rescind the request."); OR. REV. STAT. § 127.845 § 3.07 (2003) ("A patient may rescind his or her request at any time and in any manner without regard to his or her mental state. No prescription for medication . . . may be written without the attending physician offering the qualified patient an opportunity to rescind the request."). See Carl H. Coleman & Alan R. Fleischman, *Guidelines for Physician-Assisted Suicide: Can the Challenge Be Met?*, 24 J.L. MED. & ETHICS 217, 218 (1996).

421. Ezekiel J. Emanuel et al., *Attitudes and Desires Related to Euthanasia and Physician-Assisted Suicide Among Terminally Ill Patients and Their Caregivers*, 284 JAMA 2460, 2460 (2000) ("Over a few months, half the patients changed their minds.") (emphasis added).

nevertheless still the case that far more people support legalizing such measures in the abstract, than think they would in fact take advantage of them.<sup>422</sup>

Again, the affective forecasting data are relevant to any sort of advance directive, not only ones involving euthanasia or physician-assisted suicide.<sup>423</sup> The findings are consistent with empirical research showing the inconsistencies of patients' own wishes at one time, as expressed by advance directive or other means of expressing preferences, and at subsequent points in time.<sup>424</sup> In one recent study, researchers interviewed patients as to their desire to receive medical treatment in several different scenarios. The patients were hospitalized for treatment, but recovered. The preferences patients reported after hospitalization differed from those they expressed before hospitalization.<sup>425</sup> Patients who were hospitalized reported less interest in life-sustaining treatment upon hospitalization; however, a few months after being hospitalized, patients returned to expressed preferences for treatment.

Such shifting decisions before, during, and after an event are reminiscent of the "bicycle-trip" findings mentioned above, in which predictions and memories of an event were seen quite differently from the experience itself.<sup>426</sup> In another study, presenting AIDS patients with hypothetical situations about their health state and soliciting preferences about cardiac resuscitation or life-extending treatment, about one-quarter of respondents who initially desired resuscitation changed their minds after four months; about one-third of those initially rejecting it later changed their minds. For life-extending treatment more generally, about one-quarter in each category changed their minds.<sup>427</sup> Most broadly, some medical researchers suggest that overall, there is "little evidence that the decisions patients make when they are relatively healthy predict their choices when death is imminent."<sup>428</sup>

Other evidence suggests at least some stability to patients' decisions to forego life-sustaining treatment.<sup>429</sup> But importantly, again consistent with the affective forecasting

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422. Annette C. Clark, *Autonomy and Death*, 71 TUL. L. REV. 45, 55 (1996).

423. One set of researchers has recently discussed the connection between affective forecasting findings and problems in implementing advance directives. Angela Fagerlin et al., *The Use of Advance Directives in End-of-Life Decision Making: Problems and Possibilities*, 46 AM. BEHAV. SCIENTIST 268, 274 (2002).

424. See generally *id.* at 272–75.

425. Peter H. Ditto et al., Context Changes Choices: A Prospective Study of the Effects of Hospitalization on Life-Sustaining Treatment Preferences 13 (2002) (unpublished manuscript on file with author), cited in Rebecca Dresser, *Precommitment: A Misguided Strategy for Securing Death with Dignity*, 81 TEX. L. REV. 1823, 1835 (2003).

426. See *supra* notes 102–03 and accompanying text.

427. Joel S. Weissman et al., *The Stability of Preferences for Life-Sustaining Care Among Persons with AIDS in the Boston Health Study*, 19 MED. DECISION MAKING 16 (1999).

428. Diane E. Meier & R. Sean Morrison, *Autonomy Reconsidered*, 346 NEW ENG. J. MED. 1087, 1087 (2002).

429. Marion Danis et al., *Stability of Choices About Life-Sustaining Treatments*, 120 ANNALS INTERNAL MED. 567 (1994) (individuals predicting that they would prefer *no* treatment for a hypothetical terminal illness were less likely to change their prediction at a follow-up interview two years later than those predicting that they would desire treatment). Others have also found "moderately stable" expressed preferences over two years. Linda L. Emanuel et al., *Advance Directives: Stability of Patients' Treatment Choices*, 154 ARCHIVES INTERNAL MED. 209 (1994).

literature, when individuals do change their preferences, they may not realize that they have done so. Patients may not realize, then, that their original choices of treatment (or lack of treatment) may not accurately reflect their preferences when presented with an immediate treatment decision.<sup>430</sup> Most generally, “over time periods as short as 2 years, almost one-third of individuals’ stated preferences for life-sustaining medical treatment changed.”<sup>431</sup>

A final point on the stability issue reflects findings of individual differences regarding stability of preferences. Recent research suggests that older individuals have more stable preferences.<sup>432</sup> Recall that older individuals may be less subject to forecasting errors;<sup>433</sup> thus, fluctuations in younger patients’ expressed preferences about life-sustaining treatment may exacerbate the problems described above.<sup>434</sup>

The affective forecasting research is also relevant to instances where, upon a patient entering a stage of decisionmaking incompetence, a substitute decisionmaker, family or physician, must choose for that person. Specifically, such findings support earlier research showing the likelihood of a discrepancy between the patient’s preferences as predicted by substitute decisionmakers and as might actually be expressed by the patient.<sup>435</sup> Family members tend to be inaccurate at identifying a patient’s wishes,<sup>436</sup> though they tend to be better predictors than physicians.<sup>437</sup>

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430. See Dresser, *supra* note 425, at 1834–35 (2003) (citing R. Mitchell Gready et al., *Actual and Perceived Stability of Preferences for Life-Sustaining Treatment*, 11 J. CLINICAL ETHICS 334, 335 n.3 (2000)); Fagerlin et al., *supra* note 423, at 273 (participants in the Gready et al., study “mistakenly believed that the preferences they stated during the second interview were identical to those stated during their first interview”).

431. Fagerlin et al., *supra* note 423, at 273.

432. Peter H. Ditto et al., *Stability of Older Adults’ Preferences for Life-Sustaining Medical Treatment*, 22 HEALTH PSYCHOL. 605, 613 (2003).

433. See *supra* note 162.

434. To an extent, this is speculation. Affective forecasting errors may be reduced in individuals over 60. See *supra* note 40. The adult patients in Ditto’s study were all older than 65. Ditto et al., *supra* note 432, at 607.

435. E.g., Susanna E. Bedell & Thomas L. Delbanco, *Choices About Cardiopulmonary Resuscitation in the Hospital: When Do Physicians Talk with Patients?*, 310 NEW ENG. J. MED. 1089 (1984) (physician’s opinion about a patient’s desire for life-sustaining measures (for example, resuscitation) correlates only poorly with the preference expressed by the patient); Fagerlin et al., *supra* note 423, at 275.

436. Kathleen M. Boozang, *An Intimate Passing: Restoring the Role of Family and Religion in Dying*, 58 U. PITT. L. REV. 549, 552 (1997) (citing Bedell & Delbanco, *supra* note 435, at 1089, for proposition that “families are poor substitute decisionmakers,” but suggesting that “when dealing with incompetent patients who have not effectively expressed their treatment preferences, the law should recognize families as the proper decisionmakers”); Rena Cooper-Kazaz et al., *Longitudinal Changes in Attitudes of Offspring Concerning Life-Sustaining Measures for Their Terminally Ill Parents*, 47 J. AM. GERIATRIC SOC’Y 1337, 1341 (1999) (“Since most attitude studies are based on control groups, namely people who are asked about their views in theoretical situations or remotely after a life event, these studies may not reflect real attitudes and certainly cannot reflect the actual decision of a family member in a real-time situation.”); Peter H. Ditto et al., *Advance Directives as Acts of Communication: A Randomized Controlled Trial*, 161 ARCHIVES INTERNAL MED. 421, 422–23 (2001); Dallas M. High, *Families’ Roles in Advance Directives*, HASTINGS CENTER REP., Nov.–Dec. 1994, at S17 (noting that

Finally, the affective forecasting research highlights potential problems in setting policy, given the likely substantial discrepancy between assumptions about others' desires and that person's actual desires. Recall the sharp distinction between laypeople's perceptions of paraplegics' life satisfaction and the actual reported satisfaction,<sup>438</sup> or the potential distinction between what courts and policymakers believe about a surrogate mother's likelihood of relinquishing a child, and what the actual rate of relinquishment is.<sup>439</sup> Similarly, public perception of the circumstances under which terminally ill individuals might request euthanasia or physician-assisted suicide apparently differs from circumstances in which they actually do.<sup>440</sup> Where such public perception serves as the basis for policymaking, too many (or too few) patients may undergo euthanasia.

For instance, as a general matter, terminally ill patients with cancer or AIDS approve of assisted suicide legislation at rates approximating those in the general public.<sup>441</sup> Looking more closely at reasons that members of the public might support assisted suicide measures, however, disparities appear. A recent review of attitude research suggested that public support for interventions focuses on patients who are suffering "excruciating" physical pain.<sup>442</sup> However, patients in "excruciating pain" seem not to be the ones requesting euthanasia. Rather, "depressive symptoms, hopelessness, and other psychological factors appear to motivate patients' requests for euthanasia and PAS."<sup>443</sup> And, in fact, public support for euthanasia drops when what is involved in a hypothetical patient's decision to pursue euthanasia is not pain, but is instead, for instance, a decision not to burden family members.<sup>444</sup>

Again, my goal is not to join the substantive debate over the assignment of decisionmaking power for incompetent patients, or even to express a strong opinion as to the appropriateness of euthanasia or PAS. I will note, however, that the affective forecasting literature lends empirical support to those pointing out potential dangers of

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"studies have consistently shown that surrogates, including families, do not fare well in making accurate predictions").

437. Bedell & Delbanco, *supra* note 435, at 1089; Kristen M. Coppola et al., *Accuracy of Primary Care and Hospital-Based Physicians' Predictions of Elderly Outpatients' Treatment Preferences with and without Advance Directives*, 161 ARCHIVES INTERNAL MED. 431 (2001).

438. See *supra* note 227 and accompanying text.

439. See *supra* notes 376–80 and accompanying text.

440. Meier & Morrison, *supra* note 428, at 1087 ("The fact that less than 0.1% of terminally ill patients in Oregon have opted for assisted suicide further suggests that the preferences of the worried electorate contrast sharply with those of persons who are seriously ill.") (footnote omitted).

441. See Barry Rosenfeld, *Assisted Suicide, Depression, and the Right to Die*, 6 PSYCHOL. PUB. POL'Y & L. 467, 479 (2000).

442. Ezekiel J. Emanuel, *Euthanasia and Physician-Assisted Suicide: A Review of the Empirical Data from the United States*, 162 ARCHIVES INTERNAL MED. 142 (2002); see also Rosenfeld, *supra* note 441, at 480 ("[D]espite the frequent suggestion that untreated pain or other physical symptoms might lead to requests for assisted suicide, several studies have failed to support this hypothesis.").

443. Emanuel, *supra* note 442; Rosenfeld, *supra* note 441, at 480 (noting that "depression and social support are significant contributing factors" in requesting euthanasia or physician-assisted suicide); Coleman & Fleischman, *supra* note 420, at 221.

444. See Ezekiel J. Emanuel, *The Future of Euthanasia and Physician-Assisted Suicide: Beyond Rights Talk to Informed Public Policy*, 82 MINN. L. REV. 983, 996 (1998).

allowing euthanasia, such as the possibility that someone would change his or her mind when presented with the emotional reaction involved in an actual situation. Similarly, it highlights the best-of-a-bad-situation difficulties of placing decisionmaking power in family members or in physicians. Whether the data are interpreted to imply an outright prohibition on euthanasia, or simply that additional conditions should be placed on euthanasia decisions or advance directives (for example, requiring that a patient have the option to change her mind) is for another discussion. As discussed above, this “additional condition” approach is used in surrogate parenting issues. As in surrogacy, though, the issue is the extent to which individuals should be bound to previously expressed preferences, once the recognition of even foreseeably changing emotions is included.

### 3. Mid-Life Issues: Informed Consent and Medical Treatments

The affective forecasting data are not merely relevant to beginning and end of life issues. They are also relevant in the context of identifying patients’ values and utilities when seeking medical treatment and when giving informed consent.

In the context of advance directives, researchers have noted physicians’ difficulty in identifying patients’ actual preferences.<sup>445</sup> When a patient must choose a particular course of treatment, a similar difficulty arises in that patient’s own assessment of those preferences. Taken together, there may be doubt as to the extent to which a patient can in fact grant informed consent to a particular treatment at all, when it is not clear that she fully understands the emotional reactions she will face upon receiving it.<sup>446</sup> This has led some researchers to emphasize the importance of discussing emotional, as well as medical, factors with patients choosing among treatments.<sup>447</sup>

For instance, researchers conducting decision analysis to help patients quantify, and select among, the outcomes of various treatment options have noted significant differences between the preferences of patients with a colostomy after surgery for rectal cancer and those without a colostomy, who were treated for rectal cancer by radiotherapy.<sup>448</sup> Those with a colostomy valued it more highly than those without. Similarly, physicians involved in treatment of rectal cancer assigned values closer to those patients who had had a colostomy. Healthy volunteers, on the other hand, who were asked to assign some utility to a colostomy, were closer to patients who had been treated by radiotherapy.<sup>449</sup> Clearly, as with the paraplegia studies, “the role played by direct knowledge of what life is like with a colostomy” was essential in determining

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445. See, e.g., Bedell & Delbanco, *supra* note 435, at 1089; Coppola et al., *supra* note 437, at 431.

446. My focus here is on consent in the context of choosing medical treatment. Informed consent to participate in research studies is another issue, beyond the scope of this Article. See, however, Carl H. Coleman, *Rationalizing Risk Assessment in Human Subject Research*, 46 ARIZ. L. REV. 1 (2004), for a fuller treatment of that topic.

447. E.g., Donald A. Redelmeier et al., *Understanding Patients’ Decisions: Cognitive and Emotional Perspectives*, 270 JAMA 72, 74 (1993).

448. Norman F. Boyd et al., *Whose Utilities for Decision Analysis?*, 10 MED. DECISION MAKING 58, 65 (1990).

449. *Id.*

expressed preferences.<sup>450</sup> Similar results were found in the context of treatments for renal failure; patients with renal disease gave higher utility ratings to dialysis options than members of the general public.<sup>451</sup> And, of course, Christensen-Szalanski's study of women in labor who changed their minds about anesthesia demonstrates the difficulty presented by shifting preferences.

Commentators have therefore encouraged physicians to more fully discuss the implications of various medical treatments.<sup>452</sup> Statistics such as survival rates may not adequately capture the issues that should be involved in patient decisionmaking. Similarly, the affective forecasting literature shows that patients' decisions may be biased by overemphasis on the transition from one state to another.<sup>453</sup> Thus, colostomy patients may focus on their reaction immediately after surgery, rather than consider how they may come to deal with the colostomy over time. If so, patients presented with the colostomy option (or any medically appropriate treatment, of course) may undervalue the utility of the procedure. Patients' pretreatment belief that a particular treatment is undesirable would neglect the likelihood of adaptation,<sup>454</sup> leading to the pursuit of inappropriate treatment.

Physicians should recognize that "utilities for a particular state of health may change when an individual enters that state," and counsel patients accordingly.<sup>455</sup> More broadly, those who deal with patients or members of the public pursuing some biomedical decision (such as couples deciding about assisted reproduction) should incorporate discussion of the potential for adaptation in the former and changed feelings in the latter. It is likely that such discussion might realistically influence the decisions to be made,<sup>456</sup> especially as inaccurate predictions are likely most common in predicting circumstances with which an individual is unfamiliar.<sup>457</sup>

Understanding that a neglect of future circumstances might bias one's choices may significantly help patients in making decisions, both in selecting the medically appropriate treatment and at the same time potentially reducing the influences that might lead to inaccurate decisions. As in the football fan study above, drawing

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450. *Id.* at 66.

451. David L. Sackett & George W. Torrance, *The Utility of Different Health States as Perceived by the General Public*, 31 J. CHRONIC DISEASE 697, 702-03 (1978).

452. "To the extent that physicians anticipate their patients' adapting to different health states, true informed consent would require highlighting these future preferences when discussing current therapeutic alternatives." Redelmeier et al., *supra* note 447, at 74.

453. *See supra* note 125 and accompanying text.

454. Patients "may regard a particular outcome of treatment as highly undesirable but then become accustomed to it when it is directly experienced, and learn to tolerate it well." Boyd et al., *supra* note 448, at 66.

455. *Id.*

456. For instance, Coleman notes that when the implications of donating frozen embryos to other infertility patients are fully explained to couples—such as the possibility of genetically related siblings being born to those other couples, with the concomitant emotional issues that possibility raises—couples' interest in such donation decreased. Coleman, *supra* note 156, at 64 (citation omitted).

457. *See supra* notes 111-13 and accompanying text; Christensen-Szalanski, *supra* note 96, at 56 ("[P]atients may make inherently less reliable value assessments of abstract outcomes they have never experienced—a conclusion that raises additional questions about the use of patients' values in management decisions.").

attention to the circumstances that might help patients (or any individuals) adapt to new situations helps them take those circumstances into account in making their predictions.<sup>458</sup>

This is of course easier when the time frame involved in adaptation is longer than, for instance, delivering a child, but an obstetrician or other physician might still discuss with an expectant mother the likelihood that her in-the-moment preferences might change. Doctors may present a prospective mother with a precommitment option, binding herself to having anesthesia or not, as well as a choice to leave her options open and retain the freedom to change her mind at any medically appropriate point during labor.<sup>459</sup> The latter option, of course, raises again the concern about which “self”[’s] values to privilege.<sup>460</sup> It also raises issues about whether decisionmaking in both states is “rational,” to the extent that one likely does not reflect a patient’s long-term preferences.<sup>461</sup> In any event, the affective forecasting data highlight the potential for differences in a patient’s pre- and posttreatment preferences, based on inaccurate predictions of future emotional reactions as well as neglect of adaptive circumstances. In turn, this emphasizes the importance of physicians’ incorporating mention of such possibilities in discussions of the treatment consequences and outcomes, with the goal of eliciting truly informed consent.<sup>462</sup>

I do not mean that any additional legal duty should necessarily be imposed on physicians to do so. However, such richer discussion of the situation and consequences involved in some treatment mirrors recommendations for physician conduct that take into account cognitive heuristic and biases. For instance, commentators have suggested that to protect against the pervasive cognitive biases involved in framing effects—for instance, potential biases that depend on whether a treatment is presented in terms of survival rates or mortality rates—physicians should present both perspectives.<sup>463</sup> Similarly, to guard against difficulties interpreting probabilistic information and to ensure fully informed consent, professionals should express probabilities in both numerical and qualitative terms, and should “translate” such terms into analogies to more familiar probabilities of risk.<sup>464</sup> My recommendation here simply extends this approach to circumstances in which emotional biases or errors may occur.

### C. Caveats

The foregoing Parts illustrate the need to substantially reconsider existing substantive legal doctrines and public policy, ranging from decisionmaking by civil

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458. See *supra* text accompanying note 124.

459. See Christensen-Szalanski, *supra* note 96, at 56.

460. See *supra* note 156.

461. Christensen-Szalanski, *supra* note 96, at 56 (noting that the freedom to change her mind may result in a mother’s “making a decision that is contrary to her long-term preference”). This issue is discussed further in Part III.B.

462. See Kahneman & Snell, *supra* note 81, at 198 (“[T]he value that is attached to ‘informed consent’ to surgery is surely limited if patients are incapable of assessing the quality of their post-surgical lives.”).

463. RUTH R. FADEN ET AL., A HISTORY AND THEORY OF INFORMED CONSENT 321 (1986).

464. *Id.* at 322.

and criminal juries to decisions about basic bioethical concerns. However, for a number of reasons we should nevertheless be cautious at this point about implementing such changes. These reasons fall into two broad categories: the first involves the current state of affective forecasting research, and the second involves more general concerns about the application of research data to legal policy. Although these concerns need not be resolved definitively, they should be noted in any discussions regarding the application of these data to legal policy.<sup>465</sup>

### 1. The Current State of the Research

In Part I.C above, I sketched a number of potential concerns regarding the existing body of affective forecasting research. I noted that these concerns were not substantial enough to dismiss the findings of this burgeoning body of research, but nevertheless, some aspects of the data and the methodology suggest that it is too early to apply the findings wholesale in the areas I have described. That is, although the implications I review in Parts II.A and B may follow logically from the affective forecasting data, we should be cautious of unconditionally applying them before certain concerns are addressed.

Again, some such concerns were sketched earlier, for example, self-report data and between-subject experimental designs. I explained, however, why these are of only passing concern. Another point is that the affective forecasting research has, for the most part, documented a general phenomenon.<sup>466</sup> Overall, as a general matter, individuals are inaccurate at predicting future emotional states and the duration and intensity of their emotional reactions to future events. However, the research has not yet thoroughly identified whether, and to what extent, certain groups might be more or less accurate at doing so.<sup>467</sup> Preliminary evidence, sketched above, suggests that women and older individuals may be less susceptible to forecasting errors,<sup>468</sup> but this is far from clear. Identifying which witnesses may be most accurate at predicting their own future emotional experiences, and which jurors may be least susceptible to miscalculating litigants' emotions, must be left to further research.

Finally, there is the usual concern about "external validity," or "the degree to which the effects observed generalize to the actual [legal] setting."<sup>469</sup> No researcher has specifically conducted an affective forecasting study in the context of legal decisionmaking.<sup>470</sup> We thus do not yet know whether expert testimony, closing

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465. David L. Faigman, *The Law's Scientific Revolution: Reflections and Ruminations on the Law's Use of Experts in Year Seven of the Revolution*, 57 WASH. & LEE L. REV. 661, 669 (2000) ("[M]ore often than not, and almost invariably in the area of applied science (of the sort the law cares about), facts are known with more or less confidence. Lawmakers ultimately must decide how much confidence they need in a fact before making a decision.").

466. Blumenthal, *supra* note 28, at 87.

467. *See id.* at 88 & n.181.

468. *See supra* text accompanying notes 162–163.

469. Jennifer K. Robbennolt, *Evaluating Empirical Research Methods: Using Empirical Research in Law and Policy*, 81 NEB. L. REV. 777, 787 (2002).

470. Woodzicka & LaFrance, *supra* note 316, arguably come closest. I have also begun an empirical research program examining some of the jury decisionmaking issues raised in Part II.A.

argument, or judicial instruction about the phenomenon may influence actual jurors' perceptions of the harm caused by a murder.<sup>471</sup> We do not know whether grief experts' testimony about the phenomenon will influence actual juries' damage awards.<sup>472</sup> No study has directly compared perceptions of life on death row with prisoners' actual experiences, nor addressed whether and how death row inmates might possibly adapt to their time there.

Thus, as a general matter, more research will be useful before the affective forecasting research can be applied in any particular case. But it would be a serious mistake to dismiss the findings based solely on perceived methodological flaws<sup>473</sup> or insufficient research. A meta-analysis would be useful in identifying the overall quantitative state of the affective forecasting research and in identifying moderators of the phenomenon.<sup>474</sup> However, the methodological concerns need not be fully resolved before a discussion of the relevance of the research can begin; recognition of the state of the research should simply be a part of that discussion.<sup>475</sup> Finally, contrary to some courts' perspectives,<sup>476</sup> "it is not necessary that a study mirror the conditions of an actual trial for the study to have high external validity and for it to be useful in a legal or policy context."<sup>477</sup> Many—perhaps most—of the affective forecasting studies were not limited to laboratory settings, instead examining individuals' judgments in the real world about directly relevant situations. Many of the studies relevant to biomedical issues have reasonable external validity.<sup>478</sup> And more generally, identifying a phenomenon that is consistently and robustly found across so many instances both inside and outside the lab suggests that affective forecasting inaccuracies do not disappear when forecasters find themselves in a courtroom.<sup>479</sup>

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471. *See supra* Part II.A.2.a.2.

472. *See supra* Part II.A.1.b.

473. *Cf. supra* note 109 and accompanying text.

474. *See supra* note 210 and accompanying text.

475. Phoebe Ellsworth points out, in a discussion of the use of amicus briefs, that science can never wait until its data are definitive, or its "research is perfect," to present those data to the legal system, because "that day never comes." Phoebe C. Ellsworth, *To Tell What We Know or Wait for Godot?*, 15 *LAW & HUM. BEHAV.* 77, 89 (1991). Rather, it is incumbent upon social scientists to provide such data—within ethical bounds—when they "have something to say that would improve the quality of [courts' or legislatures'] decision making." *Id.* at 89 n.6; *see also* Susan A. Bandes, *Introduction to THE PASSIONS OF LAW*, *supra* note 31, at 1, 8 (noting that in the context of research on emotions, "[a]t some point, we need to take what we know, with a large dose of humility, and incorporate it into our decision making processes").

476. *See supra* note 109.

477. Robbennolt, *supra* note 469, at 788.

478. *See generally supra* Part II.B.

479. *Cf.* Tom Ginsburg, *Ways of Criticizing Public Choice: The Uses of Empiricism and Theory in Legal Scholarship*, 2002 *U. ILL. L. REV.* 1139, 1152 (noting, in the context of external validity concerns over public goods experiments, that "[w]hile there may be general problems in drawing inferences from the laboratory, the broad weight of both casual and experimental evidence is consistent with the notion that people do behave irrationally and cooperate").

## 2. Applying Social Science Data to the Legal System

There are more general tensions between the perspectives of social science and the law that warrant caution in applying empirical data. Some of my previous comments are relevant here, such as those pertaining to external validity.<sup>480</sup> But there are other legitimate reasons that courts or policymakers may choose not to apply a particular set of findings or body of research. I have discussed some such reasons elsewhere;<sup>481</sup> general points can be made here.

First, law and social science do not necessarily share the same objectives in their attempts to resolve certain questions. More specifically, in their approaches to gathering knowledge and ascertaining the “truth,” law and science may even be thought of as rivals.<sup>482</sup> Concomitantly, the principles valued by each discipline differ;<sup>483</sup> such differences can, justifiably, lead to less use of data by the legal system than social scientists may otherwise hope for.<sup>484</sup> This is not only the case for the traditional examples of differences between the two fields—“data and observation” versus “precedent and hierarchy” or scientific method versus adversarial system<sup>485</sup>—but for values such as finality or efficiency.<sup>486</sup> Where parties’ settled expectations are important, for instance, it is not a per se flaw for courts to rely on precedent rather than data.<sup>487</sup>

The distinction between the principles valued by these two fields is most evident when constitutional issues are involved; we may legitimately be concerned about applying data when such issues are at stake, and courts often are.<sup>488</sup> Of course, this in no way means that empirical data, including about affective forecasting, are irrelevant

480. See *supra* text accompanying notes 476–79.

481. See generally Blumenthal, *supra* note 13.

482. Faigman, *supra* note 465, at 669 (“Law and science do not have an identity of interests nor do they share objectives.”); J. Alexander Tanford, *The Limits of a Scientific Jurisprudence: The Supreme Court and Psychology*, 66 IND. L.J. 137, 156 (1990).

483. Tanford, *supra* note 482, at 156.

484. *Id.* at 167.

485. E.g., Craig Haney, *Psychology and Legal Change: On the Limits of a Factual Jurisprudence*, 4 LAW & HUM. BEHAV. 147, 159–68 (1980); Joelle Anne Moreno, *Beyond the Polemic Against Junk Science: Navigating the Oceans that Divide Science and Law with Justice Breyer at the Helm*, 81 B.U. L. REV. 1033, 1063 & n.172 (2001).

486. Blumenthal, *supra* note 13, at 48–49.

487. *Id.* at 49 (“[T]o the extent that people need to know what law is and have settled expectations about it, and in order to prevent the [substantive] law from changing every time a new study is presented to a particular judge, reliance on precedent [rather than data] is useful.”) (footnotes omitted).

488. E.g., *Missouri v. Jenkins*, 515 U.S. 70, 119–20 (1995) (“Such assumptions [about the necessity of remedial programs] and any social science research upon which they rely certainly cannot form the basis upon which we decide matters of constitutional principle.”); *Craig v. Boren*, 429 U.S. 190, 204 (1976) (Brennan, J.) (“[P]roving broad sociological propositions by statistics . . . is in tension with the normative philosophy that underlies the Equal Protection Clause.”) (footnote omitted); cf. Edmond Cahn, *Jurisprudence*, 30 N.Y.U. L. REV. 150, 157–58 (1955) (discussing *Brown v. Board of Education*, Professor Cahn noted that he “would not have the constitutional rights of Negroes—or of other Americans—rest on any such flimsy foundation as some of the scientific demonstrations in these records”).

in constitutional cases. Nor would I advocate the sort of disingenuous approach that some courts take by using flaws in individual studies to justify dismissing a larger body of research.<sup>489</sup> My point is simply that a court or legislature may at times be justified in declining to make constitutional-level decisions based on incomplete data,<sup>490</sup> or even when a body of research in fact supplies persuasive data upon which most social scientists agree.<sup>491</sup>

This may be true in the affective forecasting context, where a surprising number of fundamental constitutional concerns may be implicated.<sup>492</sup> As I sketched above, given our constitutional and political celebration of the jury in the context of civil juries and civil damage awards, we may be entirely comfortable with maintaining jurors' broad authority to determine damages, despite the potential for errors. So long as the award is within a range that does not "shock the conscience," we may value the compensation of tort victims sufficiently that potential deviations from optimal levels are tolerable. Similarly, we may so value the inclusion of victims' "voices" in the capital sentencing process (or other principles), that we accept potential errors in jurors' judgments of a crime's harm. And we may hold so fast to our intuitions about the horrors of death row that we might simply disregard the possibility of inmates' psychological or hedonic adaptation.

This approach is certainly the case when First Amendment issues of free speech are involved, even with the existence of far more certain data.<sup>493</sup> We know, for instance, that people are poor judges of the persuasiveness of a message, tending to focus on extra-message cues such as the speaker's authority or attractiveness or the complexity of the message. Nevertheless, we insist on relying on the "marketplace of ideas" to chill false or hurtful speech. Similarly, we know that

people are differently persuaded and articulate different beliefs, attitudes, and opinions depending on whether they are in a positive or negative mood, e.g., based on such minor differences as whether they just saw a happy or sad movie or whether it is a sunny day or not. . . . Despite clear empirical evidence of the influence of mood on judgment, we do not bar people from seeing, nor require them to watch, *Jaws* or *Sophie's Choice* immediately before entering the voting booths, nor do we hold public elections only on sunny, or rainy, days. Despite knowing that people can be easily persuaded even by false or hurtful ideas, or that weather affects people's articulated beliefs, or that people have a tendency to believe that new information is true, society and the law value established constitutional rights over empirical data.<sup>494</sup>

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489. See *supra* note 109.

490. *But see* Ellsworth, *supra* note 475 (noting that because science is an accretive and progressive field, in one sense research is always "incomplete"; that should not, however, prevent courts and policymakers from making use of relevant findings).

491. See *infra* notes 493–94 and accompanying text.

492. Seventh Amendment concerns are involved in discussions of civil damage awards; Eighth Amendment concerns are implicated in discussions of capital punishment. See *supra* Part II.A.1–2. Constitutional concerns over privacy issues can be implicated in some of the biomedical topics discussed in Part II.B.

493. Blumenthal, *supra* note 13, at 50.

494. *Id.* at 50–51 (footnotes omitted).

Finally, there is the traditional “nomothetic versus idiographic” point. That is, empirical research tends to focus on extracting generalizable propositions from observed data. Courts, of course, must resolve discrete idiographic issues. As such they may demand answers as to the specific defendant, witness, or judge in question, rather than look to generalizations about defendants, witnesses, or judges as a group. This is in a sense connected to the individual differences discussion above, as it notes that social science may have observed a general phenomenon but is not necessarily able to predict who will display it.

As a general matter, however, courts and legislatures should recognize the role of empirical social science data that speak to legal and policy issues. In fact, such data will be common, because “the legal system is fundamentally based on assumptions about human behavior.”<sup>495</sup> Nevertheless, such data must come from theoretically and methodologically sound research, experimental and otherwise, presented by social scientists in valid and useful ways.<sup>496</sup> Even when it is, social scientists should recognize that other factors in the legal system may plausibly militate against the use of such data. Relevant data should be used, but that is not to say they invariably must.

### III. THEORETICAL IMPLICATIONS

The perhaps simple notion that people are surprisingly inaccurate at predicting the intensity and duration of both their own future emotional states and those of others has practical implications for a wide variety of legal issues. The preceding Parts reviewed a number of these issues, both in and out of the courtroom, but also reviewed reasons to be cautious about immediately applying the data.

From a broader perspective, though, the notion also has theoretical implications, both for public policy and for legal theorizing about the role of emotions in the law. I turn now to brief discussions of some of these theoretical implications.

#### *A. Implications for Theories of Welfare*<sup>497</sup>

Most broadly, the affective forecasting research has implications for theories based on promoting happiness and welfare. Of course, a fundamental basis for theories of

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495. *Id.* at 52; HUNTINGTON CAIRNS, *LAW AND THE SOCIAL SCIENCES* 173–74 (1935) (“Psychology’s primary contact with the law lies in its possible substantiation or contradiction of the frequent psychological assumptions made by the courts in formulating legal rules of conduct. That is to say, when a court makes an assumption with respect to how individuals behave under particular circumstances it is making an assumption which the data of psychology may corroborate or contradict. . . . In many fields of the law the courts are making psychological assumptions . . . which the present development of psychology makes it worth while for the law to collect and test in the light of such facts as psychology is now prepared to offer.”); James R.P. Ogloff, *Two Steps Forward and One Step Backward: The Law and Psychology Movement(s) in the 20<sup>th</sup> Century*, 24 *LAW & HUM. BEHAV.* 457, 467 (2000) (“[L]egal psychologists are interested in evaluating the assumptions that the law must make about human behavior.”).

496. *E.g.*, Blumenthal, *supra* note 13, at 38–46 (reviewing meta-analytic techniques for presenting data to the legal system).

497. “[H]umans do have a knack of choosing precisely those things that are worst for them.” J.K. ROWLING, *HARRY POTTER AND THE SORCERER’S STONE* 297 (Scholastic Press 1998).

welfare (and much of law and economics<sup>498</sup>) is that people seek to maximize their preferences and expected utility.<sup>499</sup> Accordingly, efforts to promote efficiency have largely focused on a rather narrow criterion of happiness—preference satisfaction.<sup>500</sup> Much has been written, though, about individuals' incorrect beliefs about how much life satisfaction various goods will bring them.<sup>501</sup> The affective forecasting literature buttresses this literature with empirical data, emphasizing that if we do not know what will make us happy or unhappy—or, more precisely, how much something will make us happy or unhappy and how long it will do so—then we can never be sure how to maximize happiness or minimize unhappiness.

As suggested above, the data also raise issues about the assumptions of “rational” decisionmaking. Virtually all decisions about future conduct involve some sort of prediction of future tastes or feelings; “people’s actions are based, in large measure, on their implicit and explicit predictions of the emotional consequences of future events.”<sup>502</sup> Thus, being able to correctly predict those future preferences is an integral aspect of rational decisionmaking.<sup>503</sup> An inability to do so may call into question the rationality of such decisions.<sup>504</sup>

### *B. Implications for Theories of Law and Emotions*

The affective forecasting literature also has clear implications for those efforts by legal scholars to explicitly model the relationship between law and the emotions. The literature in fact undercuts some such efforts, suggesting that the assumptions on which they are based are mistaken. For other efforts the data are more ambiguous, suggesting that additional research should be conducted in order to further support or challenge those scholars’ models.

A number of recent discussions of law and the emotions reintroduce the notion of “cultivating” emotions, that is, of exercising rational control over them.<sup>505</sup> To the extent that these discussions, and the law and emotion models they sketch, are based on the assumption that people are able to accurately predict how they will feel under

498. *See supra* notes 8–9.

499. *See* Lewinsohn-Zamir, *supra* note 44, at 1675–90, for a critique of such subjective preference theories.

500. *Id.* at 1671.

501. ROBERT E. LANE, *THE MARKET EXPERIENCE* 549 (1991) (“*People do not know what makes them happy.*”) (emphasis in original); *see generally* TIBOR SCITOVSKY, *THE JOYLESS ECONOMY* (1976); Gohm & Clore, *Affect as Information*, *supra* note 161, at 110 (“Chasing the currency of value rather than value itself, whether the currency is money or pleasure, leads to misery and meaninglessness.”).

502. Gilbert et al., *supra* note 40, at 617; *see* James G. March, *Bounded Rationality, Ambiguity, and the Engineering of Choice*, 9 *BELL J. ECON.* 587 (1978).

503. Kahneman & Snell, *supra* note 81, at 189 (noting the “ability to predict the intensity [and duration] of one’s future likes and dislikes appears to be an essential element of rational decision making”); Kahneman, *supra* note 55, at 108 (“Errors in the assignment of decision utility to anticipated outcomes can arise from inaccurate forecasting of future hedonic experience. Correct prediction of future tastes is therefore one of the requirements of rational decision making.”).

504. *See infra* text accompanying note 518.

505. *E.g.*, Bandes, *supra* note 31; Katyal, *supra* note 34; Posner, *supra* note 34.

certain circumstances, and modify their behavior accordingly, the models are incomplete at best, and false and misleading at worst. For instance, Professor Eric Posner places the ability to “anticipate” emotions and “plan around” them at the core of his proposed model for incorporating emotional experience into a rational decisionmaking framework.<sup>506</sup> Indeed, his framework for a model of law and emotions rests on two basic assumptions: that individuals “usually know their emotional dispositions and can take steps to modify them or to avoid conditions that activate them”<sup>507</sup>; and that, again, “people can anticipate and plan around their emotions, by cultivating emotional dispositions and avoiding stimuli.”<sup>508</sup> Based on these assumptions, he uses his framework to draw implications for various basic areas of law—criminal, tort, property, and contract. Other researchers have also alluded to the possibility of educating decisionmakers about differences between calm- and emotion-state decisions, with the goal of helping them “avoid situations in which the dangerous temptation might occur.”<sup>509</sup>

Professor Posner is almost certainly correct that “people’s ‘calm’ preferences—that is, the preferences that they have when they are not emotionally aroused—differ from their ‘emotion state’ preferences.”<sup>510</sup> Substantial evidence illustrates such a “hot-cold empathy gap,” that is, the tendency for individuals to have, and express, different preferences when in a more nonemotional state than in an emotional state.<sup>511</sup> But he is just as likely mistaken about people’s abilities to accurately predict those differences and take actions to guard against them. The affective forecasting data illustrate that an assumption that “people can anticipate their emotional responses to various conditions”<sup>512</sup>—at least the intensity and duration of those responses—is probably

506. *E.g.*, Posner, *supra* note 34, at 1990.

507. *Id.* at 1982.

508. *Id.* at 1990. Other commentators make use of the notion of “managing” one’s emotions. *E.g.*, Moran, *supra* note 161; Rachel F. Moran, *Law and Emotion, Love and Hate*, 11 J. CONTEMP. LEGAL ISSUES 747 (2001); Shultz, *supra* note 35, at 350. Professor Moran’s examples, however—exercising good manners, for instance, or norms requiring women not to make eye contact with a man—seem to express a different perspective than Posner’s. Moreover, Professor Moran seems otherwise critical of Posner’s approach. *See* Moran, *supra* note 161, at 9–10 (“[Posner’s] approach probably comports more closely with the needs of law and economics than with the observations of behavioral psychologists.”). She and I both, however, recognize the usefulness of his “complicating” discourse about the role of emotions in the law. *Id.*

509. George Loewenstein & David Schkade, *Wouldn’t It Be Nice? Predicting Future Feelings*, in WELL-BEING, *supra* note 54, at 85, 100.

510. Posner, *supra* note 34, at 1978. As a result, he suggests, a person can foresee “his actions in the emotion state.” *Id.* at 1994.

511. *See* George Loewenstein, *Emotions in Economic Theory and Economic Behavior*, 90 AM. ECON. REV. 426, 428 (2000) (discussing studies); *see also* Colin Camerer et al., *Regulation for Conservatives: Behavioral Economics and the Case for “Asymmetric Paternalism,”* 151 U. PA. L. REV. 1211, 1238 (2003) (discussing hot-cold empathy gap).

512. Posner, *supra* note 34, at 1978; *id.* at 1982 (“[A]gents anticipate their emotion states and take actions in anticipation of them.”).

flawed.<sup>513</sup> If so, then efforts to compensate for future emotional reactions may not even take place.<sup>514</sup> Even if they do, the actions taken (or not taken) may be flawed because they are based on flawed predictions. Even educating decisionmakers about decision state differences entails making predictions about future emotions, as well as convincing them that their predictions will likely be inaccurate. The effectiveness of such education efforts is typically short-lived.<sup>515</sup>

The affective forecasting literature also suggests an alternative way of framing Posner's claims about rational decisionmaking under the influence of emotion. Specifically, Posner suggests that contrary to the traditional perspective, people under the influence of emotion nevertheless still act "rationally."<sup>516</sup> That is, although the preferences in the "calm" state differ from those in the "emotion" state, during the emotion state the person acts consistently with those temporary preferences.<sup>517</sup> On the one hand, this is wholly consistent with much of the data reviewed here, showing the likelihood that preferences expressed at Time<sub>1</sub> may differ substantially from those expressed at Time<sub>2</sub>. On the other hand, though, this approach seems to render empty the notion of rationality, as highlighted by one of the early researchers discussed above:

Distinguishing between current and long-term values creates a problem when deciding which of two mutually exclusive outcomes represents the "rational choice." Selecting the outcome that maximizes the mother's long term values (i.e., deliver her child without anesthesia) should presumably result in the greater value overall to the woman; hence it is a rational choice. However, in making that "rational" choice, the woman during active labor must act "irrationally" and refuse the outcome with the greater current value at the time of the decision.<sup>518</sup>

Others agree that the existence of differences between expressed preferences at different times indicates that one of the expressions is in fact not "authentic,"<sup>519</sup> and a number of reasons exist to believe that decisions in a "hot" emotional state may be suboptimal, or at least inconsistent with an agent's more reasoned, long-term preferences.<sup>520</sup>

Finally, recall Guthrie's suggestions about the Regret Aversion Theory and its implications.<sup>521</sup> Recall that Guthrie's suggestions were based on a study that asked perceivers to predict hypothetical litigants' actions under the potentially regret-inducing circumstances, rather than eliciting mock or even actual litigants' behavior

513. How far this flaw actually undercuts Professor Posner's conclusions is another issue. He may be correct about the inferences he draws and the suggestions he makes; if so, however, it is not for the reasons he gives.

514. Blumenthal, *supra* note 13, at 27.

515. Loewenstein & Schkade, *supra* note 509, at 101 n.13.

516. Posner, *supra* note 34, at 1982.

517. *Id.*

518. Christensen-Szalanski, *supra* note 96, at 57.

519. Fagerlin, *supra* note 423, at 272 ("An authentic treatment preference is one that is rooted in considered and important values and thus should be both consistent with the individual's past life narrative and persistent in the face of actual illness experience.")

520. *E.g.*, Camerer et al., *supra* note 511, at 1238.

521. *See supra* text accompanying notes 342–55.

under those circumstances. The methodological reasons for doing so are obvious, but to the extent that perceivers' predictions of another's emotional reactions differ from that person's actual reactions, more research will have to be conducted in order to support his claims.<sup>522</sup>

The literature also has repercussions for practical suggestions that are based on various theories of law and emotions.<sup>523</sup> For instance, certain social norm theorists have suggested using alternative punishments such as shaming penalties, based on theories of how emotions affect behavior.<sup>524</sup> But efforts to build legal rules based on the flawed assumption that people can well predict, manage, and cultivate their emotions may be misguided.<sup>525</sup> Trying to use the law to generate emotions may also be problematic because people may not accurately predict that they will feel the way the law wants them to; their behavior will thus not conform to that which the law had sought.<sup>526</sup> Moreover, inaccurate predictions of others' emotional reactions may call into question such efforts. For instance, advocates of shaming penalties suggest, in part, that the elicitation of shame in punished offenders may act as a deterrent.<sup>527</sup> But just as deterrence theorists must take into account the likelihood that some people are not the rational cost/benefit balancers that are hypothesized, social norm theorists who advocate such shaming penalties might consider that legislators' prediction of the shame a punished criminal might feel undergoing such a penalty may be quite different from what that individual actually experiences.<sup>528</sup>

On the other hand, the "deterrent" effect of a particular legal rule will depend, in this context, on individuals' accuracy in predicting their emotional reactions to the circumstances with which the rule is concerned. Again, take the example of shaming penalties. Individuals tend to overestimate their reactions to negative emotional events. Although legislators might overestimate the actual negative impact such a penalty will have on an individual who adapts emotionally to (for instance) a sign on his front lawn stating his crime, the individuals in question may also overestimate the shame they will feel, and such penalties might deter with greater-than-expected effect.

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522. For a more recent discussion of inaccuracies in predictions of regret, see Gilbert et al., *supra* note 356.

523. Professor Posner and others emphasize that the "law affects people's incentives to cultivate, and act on, their emotions." *E.g.*, Posner, *supra* note 34, at 1984.

524. *E.g.*, Dan M. Kahan, *What Do Alternative Sanctions Mean?*, 63 U. CHI. L. REV. 591 (1996).

525. *Cf.* Langevoort, *supra* note 155, at 869 ("In general, law cannot function well if it depends on the ability of people to recognize the risks or wrongs of actions to which they are committed or otherwise motivated to pursue.").

526. Bandes, *supra* note 475, at 7 ("To the extent legal systems thrive on categorical rules, emotion in all its messy individuality makes such categories harder to maintain. Rules . . . based on tidy assumptions about how people will react to certain penalties may be threatened by more complex evidence about motivations. . . . The notion of the rule of law is based, at least in part, on the belief that laws can be applied mechanically, inexorably, without human fallibility.").

527. *E.g.*, Kahan, *supra* note 524; *see* Posner, *supra* note 216, at 320 (discussing effect of shaming penalties).

528. *See* Massaro, *supra* note 135, at 91; *id.* at 95-97 (discussing some problems with the shaming penalty approach).

*C. Implications for Paternalism*

The proper role of the state in regulating, encouraging, and directing individuals' behavior has been long (and tendentiously) debated. More recently, the implications of behavioral and social science findings have been imported into the traditional normative discussion.<sup>529</sup> For instance, commentators recognize that when the behavioral science approach "identifies cognitive errors that parties are prone to making, it supports somewhat paternalistic legal doctrine."<sup>530</sup> There is little discussion, however, of the implications of research on affect and the emotions for the scope of paternalism, or examples of paternalistic steps to be taken (or not) based on such research.<sup>531</sup>

As an initial matter, recognizing the scope of paternalism helps narrow the circumstances in which it might be relevant. One characterization recognizes that the law "commonly seeks to protect innocent people from their own foolishness by imposing formal requirements on *others* who might overreach in dealing with them."<sup>532</sup> Thus, to the extent that paternalism focuses on protecting *oneself* from *oneself*, then the issue is less directly relevant to many of the "inside the courtroom" topics discussed above.<sup>533</sup> In those contexts, we are, to an extent, trying to protect individuals (or the system) from general biases, just as we might seek to protect against undue influence on a jury by introducing rules of evidence that limit what the jury may hear. Thus, implications of affective forecasting for paternalism issues may simply be beside the point for issues such as civil damage awards or victim impact statements.

In other contexts, however, such as litigants' expectations, "outside the courtroom" topics, and others, the data are relevant to the extent that they suggest guidelines for protecting individuals against decisions that are, potentially, in conflict with what their true preferences might be. Data about emotional biases or errors may suggest taking

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529. E.g., Camerer et al., *supra* note 511; Jeffrey J. Rachlinski, *The Uncertain Psychological Case for Paternalism*, 97 NW. U. L. REV. 1165 (2003) [hereinafter Rachlinski, *The Uncertain Psychological Case*]; Jeffrey J. Rachlinski & Cynthia Farina, *Cognitive Psychology and Optimal Government Design*, 87 CORNELL L. REV. 549 (2002); Rachlinski, *supra* note 11; Cass R. Sunstein & Richard H. Thaler, *Liberal Paternalism is Not an Oxymoron*, 70 U. CHI. L. REV. 1159 (2003); Eyal Zamir, *The Efficiency of Paternalism*, 84 VA. L. REV. 229 (1998) (recognizing implications of research on bounded rationality for paternalistic theories).

530. Rachlinski, *supra* note 11, at 763.

531. One exception is Huang, *Emotional Investing*, *supra* note 28. See *infra* text accompanying notes 541–542. Professors Hanson and Kysar discuss the danger of marketing experts' manipulation of consumer preferences, using as one example the exploitation of time-variant preferences. Hanson & Kysar, *supra* note 15, at 735–36. See also Jeremy A. Blumenthal, *Emotional Paternalism* (2005) (unpublished manuscript on file with author).

532. Langevoort, *supra* note 155, at 878 (emphasis added); see E. Allan Farnsworth, *Promises and Paternalism*, 41 WM. & MARY L. REV. 285, 286 (2000) (paternalism includes legal rules that "for a person's 'own good' disable that person from making a binding commitment"); Kronman, *supra* note 30, at 763 ("In general, any legal rule that prohibits an action on the ground that it would be contrary to the actor's own welfare is paternalistic."); *id.* at 764 (primary purpose of paternalism is "to protect the promisor himself by limiting his power to do what the law judges to be against his own interests").

533. See *supra* Part II.A.

certain paternalistic steps, just as data on cognitive errors, heuristics, and biases do.<sup>534</sup> Indeed, “[w]hat weight should be given to a choice that is informed by personal experience if this choice can be traced to a faulty evaluation process?”<sup>535</sup> Should not a third-party step in when appropriate?

In fact, such steps are not unusual in certain contexts; a number of paternalistic policies exist that recognize individuals’ potential for making inaccurate predictions about their feelings and preferences.<sup>536</sup> An obvious one is the development of “cooling-off periods” designed to protect consumers against hasty or emotional purchases.<sup>537</sup> Such periods are imposed either before a consumer can take possession of a purchased item, or as a time frame during which the consumer can change her mind about a purchase.<sup>538</sup> Some commentators have described such protections as involving cognitive factors,<sup>539</sup> but they clearly protect against emotionally-induced errors as well.<sup>540</sup>

Similarly, Peter Huang has recently suggested protecting investors against their own emotionally-biased decisions, just as current securities law doctrine is designed to protect them against their cognitive-based concerns.<sup>541</sup> In particular, Professor Huang suggests that in the context of securities fraud, courts consider not only the cognitive impact that prospectuses or other informational material might have on potential investors and on shareholders, but also the emotional impact. He notes that the positive mood induced by “puffery” can lead to more superficial processing of a prospectus containing such puffery, and recommends that the affect induced by positive material be considered in evaluating how a “reasonable” reader might interpret that material. Similarly, he suggests modifying the current “total mix” doctrine of evaluating the materiality of information presented in investment material to include evaluation of the “total affect” induced by that information.<sup>542</sup> Taking such steps to protect investors against their own emotional tendencies is one example of emotion data suggesting paternalistic steps.

Most broadly speaking, though, the affective forecasting findings need not mandate paternalistic policies, but may at least reject one common counterargument, the libertarian perspective that people should be “left alone” because they typically know what is good for them.<sup>543</sup> Kahneman et al., for instance, emphasize the possibility of

534. See generally Rachlinski, *The Uncertain Psychological Case*, *supra* note 529.

535. Kahneman et al., *supra* note 117, at 404.

536. See Loewenstein & Schkade, *supra* note 509, at 100 (citing as examples “social security, prohibitions against suicide, criminalization of narcotics use, and consumer protection clauses”).

537. See, e.g., Camerer et al., *supra* note 511, at 1238–47; Robert A. Hillman & Jeffrey J. Rachlinski, *Standard-Form Contracting in the Electronic Age*, 77 N.Y.U. L. REV. 429, 450 n.114 (2002).

538. Other research by affective forecasting scholars, however, raises questions about the consequences of such steps. For instance, Gilbert and Ebert, *supra* note 110, have shown that people generally prefer to have reversible choices. These preferences, however, sometimes lead to reduced liking for the products that people end up with. *Id.*

539. E.g., Rachlinski, *The Uncertain Psychological Case*, *supra* note 529, at 1224.

540. Camerer et al., *supra* note 511, at 1240.

541. Huang, *Emotional Investing*, *supra* note 28.

542. *Id.*

543. Kahneman et al., *supra* note 125, at 397.

resisting overly paternalistic policy inferences by appeal to other grounds, such as “the value of freedom and the high risk that coercive power will be abused.”<sup>544</sup> Indeed, many of the social scientists conducting this line of research are wary of finding paternalistic implications in their results, primarily by making one of those two points, or by suggesting that the state of research is simply too preliminary to justify substantial intervention.<sup>545</sup> Legal commentators as well advocate looking to autonomy and other factors as alternatives to potential paternalistic implications. Coleman, for instance, has argued forcefully for treating decisions about the disposition of frozen embryos as involving inalienable rights.<sup>546</sup> Rather than binding oneself to decisions based on unexperienced emotions—that is, paternalistically limiting one’s decision set<sup>547</sup>—Coleman advocates maintaining autonomy by encouraging contemporaneous decisions.<sup>548</sup> Other data show the autonomy argument to be weaker than is traditionally thought,<sup>549</sup> but it is nevertheless a plausible *prima facie* reason to be cautious about paternalism. A difficulty for basing paternalistic policies on the affective forecasting data is that some of the findings run counter to such inferences. In particular, although people may not know what is good for them, it may be that they know better than policymakers who do not know them at all. This point is not new; John Stuart Mill recognized it in his classic “On Liberty”:

[W]ith respect to his own feelings and circumstances, the most ordinary man or woman has means of knowledge immeasurably surpassing those that can be possessed by anyone else. The interference of society to overrule his judgement and purposes in what only regards himself, must be grounded on general presumptions; which may be altogether wrong, and even if right, are as likely as not to be misapplied to individual cases, by persons no better acquainted with the circumstances of such cases than those are who look at them merely from without.<sup>550</sup>

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544. *Id.*

545. Loewenstein & Schkade, *supra* note 509, at 100; Kahneman et al., *supra* note 125, at 397.

546. *E.g.*, Coleman, *supra* note 156. *But see* Robertson, *Precommitment Strategies*, *supra* note 398, at 1024 (potential gains from precommitment “should not be shunted aside with an *ipse dixit* about personal liberty.”).

547. *See* Farnsworth, *supra* note 532.

548. Coleman actually characterizes one potential criticism of his approach as stating that it is itself paternalistic, assuming “that people need to be protected from the consequences of their own choices.” Coleman, *supra* note 156, at 120. He rebuts the potential objection, but also points out that even if making decisions freer does somehow impose paternalistically on individuals, it does not “infantilize” them or reduce their autonomy, because it is precisely in areas of difficult emotional decisionmaking that people *should* be allowed such latitude. *Id.* at 122.

549. Blumenthal, Emotional Paternalism, *supra* note 531.

550. JOHN STUART MILL, ON LIBERTY, reprinted in J.S. MILL, ON LIBERTY IN FOCUS 21, 91 (John Gray & G.W. Smith eds., 1991).

I do not yet take sides in the discussion, but simply point out the importance, in discussions of paternalism, of adding consideration of emotional “errors” to consideration of cognitive errors.<sup>551</sup>

#### CONCLUSION

A burgeoning body of social science research documents an initially counterintuitive, but upon reflection straightforward phenomenon—people’s difficulty at predicting the intensity and duration of their future emotions, as well as those of others. I have discussed important consequences of this phenomenon for a wide variety of legal and public policy topics, both in and out of the courtroom. From decisions about both civil and criminal punishment to ones concerning medical treatment, recognizing the possibility for errors in affective forecasting may have profound effects on our treatment of legal and policy issues. Existing models of law and emotions may be based on flawed assumptions, and policy initiatives of such models may thus be misguided.

My goal has been twofold: first, to highlight existing empirical data about the emotions and import them into the developing discussion of law and the emotions, emphasizing the relevance of these data to several areas of law and policy. Additional research will be useful in many of the areas I have discussed, and I suggested possibilities, both theoretical and experimental, for such future work. Second, more broadly, I sought to highlight the neutral nature of such data, in many of the cases deliberately refraining from advocating certain policy implications of the research. Moreover, in some instances, such as capital punishment or surrogate mothering, I pointed out that the affective forecasting data may point both in favor and against each “side” of the issue. For instance, the possibility of overpredictions of the harm attending a murder may lead to increased death sentences, which supports abolitionists’ efforts to do away with victim impact statements. On the other hand, the possibility of hedonic adaptation by death row inmates undercuts those abolitionists’ claims that the death row existence is “psychological torture” and is necessarily worse than execution.

Taking this approach emphasizes, I hope, the importance of presenting and using social science research in as value-free a way as possible.<sup>552</sup> Social scientists, of course, and those making use of social science data, may advocate some particular position, and at times here I have. But ultimately, courts and legislatures should and will be making decisions based on those data. Presenting all of those data’s implications will not only help policymakers make those decisions in a more informed manner, but can also force additional honesty and accountability. When the data point in different directions, a policymaker’s choice of one of those directions (or one unsupported by the data) will have to be explicitly justified.<sup>553</sup>

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551. For a fuller discussion see Blumenthal, *supra* note 531.

552. Blumenthal, *supra* note 13, at 48.

553. *Id.* at 51.