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NUDGING PATIENT DECISION-MAKING

Wendy Netter Epstein*

Abstract: Rational choice theory once pervaded the law. But we now know that individuals often make decisions that are not in their best interests. Many areas of the law have responded accordingly. The law of health care decision-making, however, has not.

With limited exception, patients have the right to make their own medical decisions about their treatment, even if they make bad decisions. And there is ample evidence from the behavioral sciences that they do make bad decisions. Patients lack the stable preferences that the law assumes they will draw upon in making decisions, and they suffer from a number of systematic decision-making biases. Bad decision-making negatively impacts the individual, but also the entire health care system that must bear the cost of poor decisions. Patient choice nonetheless remains a hallmark of legal doctrine.

This Article challenges the myopic approach that solely values autonomy to the detriment of well-being. It proposes that both doctors and patients instead be nudged toward the welfare-maximizing treatment choice by the establishment of a treatment default. A right to opt-out still protects autonomy, but the default will move most patients toward better decisions—those that data suggest will most increase patient well-being. We should no longer accept a regime that delegates the complex task of decision-making to often vulnerable patients without regard to their well-being.

INTRODUCTION	1256
I. THE COMPLICATED RELATIONSHIP BETWEEN AUTONOMY AND WELL-BEING	1261
A. The Autonomy Value in Health Care Decision-Making ..	1263
B. The Well-Being Value in Health Care Decision-Making	1264
C. History of the Informed Consent Doctrine and Emergence of the Autonomy Value as Predominant.....	1266
1. Paternalism Once Dominated Health Care	1266
2. Commitment to Autonomy Emerged.....	1268
3. Autonomy Value Became Entrenched in Informed Consent Doctrine	1270

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4. Rationale for Autonomy-Centric Informed Consent Doctrine	1272
II. PATIENTS OFTEN MAKE BAD DECISIONS	1274
A. Many Patients Do Not Have Stable Preferences About Care	1275
B. Patients Often Do Not Maximize Well-Being: Affective Forecasting Errors and Other Biases	1277
1. Affective Forecasting Errors	1278
2. Other Heuristics and Biases.....	1281
C. Why Current Doctrine Is Flawed	1286
D. Current Solutions Do Not Effectively Address the Problems.....	1288
III. AUTONOMY, WELFARE, AND CHOICE ARCHITECTURE	1292
A. Nudge: Promoting Well-Being with Respect for Autonomy.....	1292
B. Other Areas Have Responded to Biased Decision- Making with Nudges (While Health Care Decision- Making Has Not).....	1298
IV. A NUDGE TO IMPROVE HEALTH CARE DECISION- MAKING	1300
A. Nudging Patients to Increase Well-Being by Establishing a Default	1301
B. Data to Help Select Defaults	1307
CONCLUSION	1315

INTRODUCTION

Perhaps it is unsurprising that patients are entrusted to make decisions regarding their own medical treatment. This doctrinal choice seems to satisfy two goals simultaneously. It protects patients' rights to self-determination—to make personal decisions concerning their own bodies. It also assumes that well-informed patients will draw on their personal preferences to make the decisions that will be the best for them. The problem, however, is that ample evidence now suggests that patients often do *not* make the decisions that are best for them.¹ Bad patient decision-making not only has consequences for individual patients, but also for the entire health care system, which bears the costs of those bad

1. See, e.g., Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051, 1055 (2000) (“There is simply too much credible experimental evidence that individuals frequently act in ways that are incompatible with the assumptions of rational choice theory.”).

decisions.² Yet health care policymakers and lawmakers have so far remained steadfast in their commitment to the status quo.

Many other areas of the law started in the same place, putting similar trust in individual decision-making. But when it became clear that fully informed individuals frequently did not act as theory anticipated, the law responded.³ In some areas, that meant regulating away choices that people should not make. Traditional contract law assumed that rational parties would only enter into contracts that would make them better off. When flaws in the assumption were revealed, modern contract law responded with the ascendancy of doctrines like unconscionability and with regulations to protect people from their own bad choices.⁴ For instance, the Credit Card Accountability Responsibility and Disclosure Act of 2009 prevents consumers from entering into contracts with credit card companies that would ultimately be welfare-reducing.⁵

And where paternalistic measures were criticized as government coercion, libertarian paternalism emerged as a compromise.⁶ Policymakers began to use tools to shape individuals' choices, making it more likely that an individual would select the best option, without mandating such a choice. One example is the strategic use of defaults. Because defaults are sticky—meaning that choosers tend to remain in the default position even if they would not have actively chosen it—policymakers now frequently select defaults that will make most individuals better off. The assumption is that few will opt-out, although defaults preserve their option to do so.⁷ In consumer finance, some mortgages are now structured such that escrowing taxes and insurance—to ensure that individuals have sufficient funds put aside to make those payments when they come due—is the default. Consumers may choose

2. See, e.g., *infra* notes 170–72 and accompanying text (discussion of overtreatment problem in the United States, which is costing the United States \$210 billion per year).

3. See *infra* section III.B.

4. See Anthony T. Kronman, *Paternalism and the Law of Contracts*, 92 YALE L.J. 763 (1983); Christopher K. Odinet, *Commerce, Commonality, and Contract Law: Legal Reform in a Mixed Jurisdiction*, 75 LA. L. REV. 741, 780–83 (2015) (quoting *E. of Chesterfield v. Janssen*, 28 Eng. Rep. 82, 100 (1750)) (explaining that the doctrine of unconscionability originated in response to individuals voluntarily entering into contracts “that ‘no man in his senses and not under delusion would make’”); Cass R. Sunstein, *Legal Interference with Private Preferences*, 53 U. CHI. L. REV. 1129, 1174 (1986).

5. See, e.g., Credit CARD Act of 2009, Pub. L. No. 111-24, 123 Stat. 1734 (codified as amended in scattered sections of 15 U.S.C.); see also *infra* section III.B.

6. RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT WEALTH, HEALTH, AND HAPPINESS* 9–11 (2008) (arguing for a form of libertarian paternalism) [hereinafter *NUDGE*].

7. Cass R. Sunstein, *Deciding by Default*, 162 U. PA. L. REV. 1, 5–6 (2013).

to opt-out after the first year, but by making “opt-in” the default, the result is that many more individuals are protected from the consequences of failure to pay. Having the protection is in most individuals’ best interests.⁸ Many legal fields, including property law and criminal law, have also responded to evidence that human decision-making often does not produce optimal results, either by regulating or by “nudging”⁹ to more desirable decisions.¹⁰

The law of health care decision-making has not followed suit—but it should. While the entrenched doctrine seems to respond to both concerns about patient autonomy and patient well-being, evidence from the behavioral sciences suggests it is a ruse.¹¹ Patient choice may further the value in self-determination—although there is reason to even question that¹²—but the law’s reliance on patient choice as a dependable proxy for patient well-being is highly flawed.

Patients suffer from a number of systematic decision-making biases that will often prevent them from choosing treatment options that will most increase their own well-being.¹³ In particular, research from the emerging field of hedonic psychology has shown that people exhibit substantial “affective forecasting errors” that lead them to erroneous predictions about how future experiences will make them feel.¹⁴ An

8. See 12 C.F.R. § 226.35(b)(3) (2016); Lauren E. Willis, *When Nudges Fail: Slippery Defaults*, 80 U. CHI. L. REV. 1155, 1229 (2013) (discussing the use of other defaults intended to nudge behavior in consumer finance).

9. See NUDGE, *supra* note 6 (arguing policymakers should mitigate cognitive bias by framing choices in ways that help people act in their own self-interest, otherwise known as nudges).

10. See *infra* section III.B.

11. In some sense, patient well-being is akin to the principle of “beneficence” or of “welfare.” A broad, inclusive definition of well-being (to include the concepts of beneficence and welfare) is intentionally used here. See *infra* section I.B.

12. A choice is not truly autonomous if it is dependent on decision frames. See *infra* section II.A. Also, some people prefer not to have to make such decisions, and current law does not permit that choice. See Cass R. Sunstein, *Choosing Not to Choose*, 64 DUKE L.J. 1 (2014) (noting that many people prefer not to make choices about their health).

13. See George Loewenstein, *Projection Bias in Medical Decision Making*, 25 MED. DECISION MAKING 96, 98, 103–04 (2005); Michael L. Kelly, *Risk Perception, Bias, and the Role of the Patient-Doctor Relationship in Decision Making About Cerebral Aneurysm Surgery*, 17 AMA J. ETHICS 6, 7 (2015) (“[C]ognitive biases and decision-making heuristics strongly influence decision making for both patients and physicians.”).

14. Research on hedonic psychology is increasingly applied to legal issues, including tort law, criminal law, and administrative law. See generally JOHN BRONSTEEN, CHRISTOPHER BUCCAFUSCO, & JONATHAN S. MASUR, HAPPINESS AND THE LAW (2015); LAW AND HAPPINESS (Eric A. Posner & Cass R. Sunstein eds., 2010).

individual might think life is over if a limb is lost, but in fact, most people adapt well in such circumstances.¹⁵

Perhaps most profound, the research in this area has brought into question whether most patients even have stable preferences that they draw from in making health care decisions. Consider that if you have a preference for apples over oranges and are asked to choose whether you would prefer to eat an apple or an orange, you may be able to answer that question relatively easily to satisfy your preference for apples. But in health care, most people do not have engrained preferences for things like whether to amputate a limb or prolong life.¹⁶ Rather, their preferences are constructed largely by the decision-making frame in which they are presented.¹⁷ What appears to be autonomous choice is really not. The patient's choice is unwittingly undermined by cognitive limitations and framing effects.

This Article urges a fundamental re-examination of the law of health care decision-making on this basis—the recognition that patients often do not make decisions in their own best interests. We should not delegate the complex task of health care decision-making to vulnerable patients without concern for their well-being if we know those patients are likely to make bad decisions.

What should we do instead of just letting patients choose? One option is hard paternalism—the law could simply regulate and force patients to make the decisions that are best for them. But given the deeply personal nature of health care, and the importance of protecting patients' rights to self-determination, outright paternalism seems a bad fit. Indeed, the health law field has seen strong opposition to paternalism in recent years in the medical marijuana and “right to try”¹⁸ movements.

Instead, health care decision-making presents a classic example where both pure autonomy and hard paternalism are problematic. This Article argues that the middle ground of libertarian paternalism offers the best solution. Specifically, it urges a decision-making “nudge” that responds

15. See Samuel R. Bagenstos & Margo Schlanger, *Hedonic Damages, Hedonic Adaptation, and Disability*, 60 VAND. L. REV. 745, 764 (2007).

16. See, e.g., Linda Brom et al., *Patients' Preferences for Participation in Treatment Decision-Making at the End of Life: Qualitative Interviews with Advanced Cancer Patients*, 9 PLOS ONE 1, 4–7 (2014).

17. See NUDGE, *supra* note 6.

18. See, e.g., Julie Turkewitz, *Patients Seek 'Right to Try' New Drugs*, N.Y. TIMES (Jan. 10, 2015), http://www.nytimes.com/2015/01/11/us/patients-seek-right-to-try-new-drugs.html?_r=0 [https://perma.cc/3QBM-RWDS] (describing the recent wave of states passing laws that permit critically ill patients the right to try medications that have not been approved by the Food and Drug Administration with the goal of promoting patient choice).

to the problem of bounded rationality while preserving a sense of autonomy.¹⁹ Physicians, who themselves are biased decision-makers, should be required to present the welfare-maximizing treatment choice to patients as the default. Patients should be permitted to opt out of that default, but because defaults are sticky, the expectation is that most patients will be nudged toward the option that will be the best for them.²⁰ It will be difficult to determine where to implement a default, and then how to select the default that will most maximize any individual patient's well-being. But these problems are not unsolvable, particularly as outcome data becomes more personalized²¹ and hedonic data—helpful to predicting future well-being—becomes more readily available.²²

Just as the breakdown of rational choice theory has already brought about changes to other areas of the law, the same sorts of changes are also appropriate—and perhaps even more so—in health law, where patients are particularly vulnerable and decision-making is a particularly complex endeavor. The law can no longer blithely accept that allowing patients to make informed choices about their treatment will tend to make them better off, even if we give them decision aids and other tools in an attempt to de-bias them.²³

Part I of this Article explores the values of autonomy and well-being in health care decision-making and explains how autonomy has come to dominate the law of patient decision-making, both in scholarship and in informed consent doctrine. Part II then sets out the problem. Despite the law's reliance on patient choice, substantial literature on decision-making heuristics and biases undermines the notion that patients' choices are strongly correlated with increased patient well-being. It also calls into question the assumption that patients even have stable preferences to draw upon that are not constructed simply by the decision-making frame in which they are presented. Part III explores the concept of choice architecture, with specific emphasis on the stickiness

19. See generally Cass R. Sunstein, *The Ethics of Nudging*, 32 YALE J. ON REG. 413 (2015) (discussing the ways in which nudges promote autonomy).

20. See *infra* section III.A for discussion of the stickiness of defaults.

21. See, e.g., Sharona Hoffman & Andy Podgurski, *Improving Health Care Outcomes Through Personalized Comparisons of Treatment Effectiveness Based on Electronic Health Records*, 39 J.L. MED. & ETHICS 425, 425 (2011) (discussing how “electronic queries of a large electronic health record (EHR) database” permit medical professionals to “summarize the outcomes of available treatments administered to patients with similar clinical characteristics”).

22. See *infra* section IV.B for discussion of the data available to guide selection of defaults, which is not perfect but is evolving.

23. See *infra* section II.D for discussion of the limitations of debiasing efforts.

of defaults and the use of decision simplification tools. Finally, Part IV introduces the specific suggestion for reform—a type of decision simplification mechanism to move patients toward better choices, while respecting autonomy. It concedes a variety of concerns about employing a nudge, including the paternalistic, coercive power of nudges and the inherent difficulty in setting the default. But it concludes that the unique nature of health care decision-making, combined with the collection of quality data to help predict welfare-enhancing treatment choices, justifies a nudge in this context.

I. THE COMPLICATED RELATIONSHIP BETWEEN AUTONOMY AND WELL-BEING

Every day, patients are asked to make very difficult decisions under conditions of uncertainty. Imagine a fifty-five-year-old woman who has been living with chronic, debilitating pain in her lower back caused by degenerative changes in her spine. Her doctor proposes spinal fusion surgery to join vertebrae in the problematic region. It is a major surgery with a long recovery period.²⁴ Her doctor also mentions the option to undergo intense physical therapy instead of surgery. The patient must decide whether to have the surgery, which has very mixed rates of success, but which the doctor nonetheless prefers, or to try the less invasive physical therapy.

Or perhaps there is a sixty-nine-year-old man who completes a routine treadmill exercise test at his yearly exam, the results of which suggest coronary artery disease. A follow-up diagnostic test finds narrowing of his coronary artery. He is active and has no symptoms. His doctor recommends, as a preventative measure, that he have his narrowed artery propped open with a stent—a small metal mesh tube. This option appeals to the patient's desire to address the problem rather than feel like a ticking time bomb. However, the evidence suggests that almost a third of stents that are placed may be unnecessary.²⁵ He must decide whether to have the stent placed or to instead make lifestyle changes or try medication therapy.²⁶

24. See Roger Chou et al., *Interventional Therapies, Surgery, and Interdisciplinary Rehabilitation for Low Back Pain: An Evidence-Based Clinical Practice Guideline from the American Pain Society*, 34 *SPINE* 1066 (2009); Brook I. Martin et al., *Expenditures and Health Status Among Adults with Back and Neck Problems*, 299 *JAMA* 656 (2008).

25. See *infra* notes 160–61 and accompanying text.

26. See generally Grace A. Lin & R. Adams Dudley, *Fighting the “Oculostenotic Reflex,”* 174 *JAMA INTERNAL MED.* 1621 (2014).

Health care decision-making, as these examples demonstrate, is often complicated.²⁷ It implicates various patient interests and reflects a series of complex trade-offs, even when considered only from the patient's perspective.²⁸ Should a patient choose a riskier procedure that may lead to the best possible outcome but with the greatest potential side effects, or the safer option where the patient knows the outcome will not be ideal? How should a patient choose between the psychological burden of a wait-and-see approach versus the potential complications and cost of a serious surgery? How does a patient weigh the cost in taking extended time away from work for recovery against a longer-term reduction in ability from not acting?

Health care decisions are not only complicated due to the range of factors that must be considered, but sometimes because of the competing values such decisions produce. Of the long list of values that patients and the law might prioritize in making these decisions, patient well-being and patient autonomy are of primary importance.²⁹ In the last half-century of legal and policy scholarship on health care decision-making, patient autonomy has come to dominate the discourse, in part because it has been considered a proxy for well-being.³⁰ The next subparts discuss the autonomy and well-being values and describe how the autonomy value drives the doctrinal choice in informed consent law.

27. This is particularly so for preference-sensitive care—care for which treatment alternatives exist, and there is no universally agreed-upon medical choice. See John E. Wennberg & Philip G. Peters, Jr., *Unwarranted Variations in the Quality of Health Care: Can the Law Help Medicine Provide a Remedy/Remedies?*, 37 WAKE FOREST L. REV. 925, 928–29 (2002). For preference-sensitive care, the alternatives have different risks and benefits about which individuals may have heterogeneous preferences, if they have preferences at all. *Id.*; see also Anna B. Laakmann, *When Should Physicians Be Liable for Innovation?*, 36 CARDOZO L. REV. 913, 923 (2015).

28. This Article sets aside issues related to health care costs, insurance, and appropriate incentives for physicians. For discussion of these issues, see generally Wendy Netter Epstein, *Revisiting Incentive-Based Contracts*, 17 YALE J. HEALTH POL'Y L. & ETHICS 1 (2017).

29. See, e.g., Peter H. Schuck, *Rethinking Informed Consent*, 103 YALE L.J. 899, 924 (1994); Stephanie Alessi Kraft et al., *Research on Medical Practices and the Patient-Physician Relationship: What Can Regulators Learn from Patients?*, 17 AMA J. ETHICS 1160, 1160–65 (2015); Erin Sheley, *Rethinking Injury: The Case of Informed Consent*, 2015 BYU L. REV. 63, 63 (2015).

30. Jaime Staples King & Benjamin W. Moulton, *Rethinking Informed Consent: The Case for Shared Medical Decision-Making*, 32 AM. J.L. & MED. 429, 431 (2006); Nadia N. Sawicki, *Modernizing Informed Consent: Expanding the Boundaries of Materiality*, 2016 U. ILL. L. REV. 821, 827 (“The doctrine of informed consent is grounded in the ethical principle of patient autonomy.”); see, e.g., Kraft et al., *supra* note 29, at 1160–65; Schuck, *supra* note 29, at 924; Sheley, *supra* note 29, at 63.

A. *The Autonomy Value in Health Care Decision-Making*

The autonomy value as a general matter is firmly engrained in Western society. Autonomy means the ability to make one's own decisions and to live one's life as one chooses, without the effect of distorting or manipulating sources.³¹ Autonomy has its roots both in the Kantian tradition of moral philosophy and in John Stuart Mill's utilitarian liberalism.

According to Kant, autonomy means "self-rule."³² It is the power to act, utilizing one's inherent rationality through freedom of choice,³³ and to engage in independent decision-making.³⁴ Autonomy is important because it is essential to personhood. Government is justified, in part, by its role in protecting the autonomy of its citizens.³⁵ Kant's autonomy is universal. Everyone has it, and it is to be valued, regardless of differences in capacity.³⁶

For Mill, autonomy is "one of the elements of well-being."³⁷ It enables a person, acting according to his own inclinations and judgments, to become "a noble and beautiful object of contemplation" and enables his life to become "rich, diversified, and animating."³⁸ He becomes more valuable to himself, and therefore, more valuable to others. Thus, society protects its own interest when it cultivates a person's individuality.³⁹ In arguing for the importance of autonomy and against paternalism, Mill argues that individuals know their own interests and preferences better than others. Therefore, unless an individual's decision will cause harm to others, the state should not interfere in individual decision-making.⁴⁰

31. John Christman, *Autonomy in Moral and Political Philosophy*, STAN. ENCYCLOPEDIA PHIL. (Jan. 9, 2015), <http://plato.stanford.edu/entries/autonomy-moral/> [<https://perma.cc/R986-7BBL>].

32. Immanuel Kant, *Groundwork of the Metaphysics of Morals* § 4:439, in PRACTICAL PHILOSOPHY 41, 88 (Mary J. Gregor ed. & trans., 1996) (1785).

33. Kim Treiger-Bar-Am, *In Defense of Autonomy: An Ethic of Care*, 3 N.Y.U. J.L. & LIBERTY 548, 555 (2008).

34. *Id.*; see generally Paul Guyer, *Kant on the Theory and Practice of Autonomy*, 20 SOC. PHIL. & POL'Y 70 (2003).

35. Christina E. Wells, *Reinvigorating Autonomy: Freedom and Responsibility in the Supreme Court's First Amendment Jurisprudence*, 32 HARV. C.R.-C.L. L. REV. 159, 165–69 (1997).

36. See Kant, *supra* note 32.

37. JOHN STUART MILL, ON LIBERTY 52 (E. Alexander ed., 1999) (1859).

38. *Id.* at 59.

39. *Id.*

40. *Id.* at 69–70.

The idea of autonomy figures heavily in many aspects of the law.⁴¹ Particularly in matters concerning health, autonomy is considered to be of great importance. Decisions about one's health are highly personal and, most scholars argue, affect the person making the decision rather than society more generally.⁴² A common sentiment is that "[f]ew if any choices are more private and intimate than those that concern the use made of one's own body."⁴³

Autonomy in health care decision-making is synonymous with the idea of patient choice. It is often valued for deontological reasons. In other words, the right to self-determination is valuable in and of itself.⁴⁴ Even if patients use their autonomy to make poor decisions, having the autonomy to make the decision is itself a good thing. When it comes to medical decision-making specifically, scholars have long argued that as long as patients do not cause harm to others, they should be permitted to choose what is best, even if they choose poorly.⁴⁵ Regardless of the outcome, the patient feels better about the decision for having made it.⁴⁶

B. *The Well-Being Value in Health Care Decision-Making*

But it is not only the act of choosing that may be important. The outcomes of that choice and how that choice bears on an individual's life also demand substantial consideration.⁴⁷ Well-being refers to how well a person's life goes according to a chosen measure, such as satisfaction with one's life or an individual's happiness.⁴⁸ It is an instrumental

41. *Id.*; see, e.g., Richard H. Fallon, Jr., *Two Senses of Autonomy*, 46 STAN. L. REV. 875 (1994); DAVID B. MATCHAR & GREG P. SAMSA, *Linking Modeling with Health Policy Formation and Implementation in Decision-Making*, in HEALTHCARE: THEORY, PSYCHOLOGY AND APPLICATIONS 145 (Gretchen B. Chapman & Frank A. Sonnenberg eds., 2003).

42. The clear exception, here, is matters of public health. Also consider systemic problems resulting from individual decisions, like the epidemic of unnecessary care that has contributed to ballooning health care costs in the United States. See *infra* notes 166–72 and accompanying text.

43. Schuck, *supra* note 29, at 924.

44. See Sawicki, *supra* note 30.

45. Schuck, *supra* note 29, at 924–26. This is the same argument made in support of the medical marijuana and right to try movements. See, e.g., Turkewitz, *supra* note 18.

46. Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. PA. L. REV. 647, 734–35 (2011) (“An important thread of the literature suggests that there is a dignitary benefit to receiving information even if you do not use it.”); cf. Sunstein, *supra* note 12 (some people would actually feel better not to have to make the decision at all).

47. See, e.g., TOM L. BEAUCHAMP & JAMES F. CHILDRESS, *PRINCIPLES OF BIOMEDICAL ETHICS* 12 (6th ed. 2009).

48. See, e.g., Louis Kaplow & Steven Shavell, *Fairness Versus Welfare*, 114 HARV. L. REV. 961, 971 (2001).

value—meaning that it is a means to an end. What matters is that well-being is maximized.

Concern for an individual’s well-being is historically aligned with the utilitarian philosophy of Jeremy Bentham. According to Bentham, the most important goal for the state was maximizing the utility of its citizens, where utility was understood as the relative relationship between pleasure and pain.⁴⁹ On Bentham’s view, a person’s life had greater well-being the greater the ratio of happiness to suffering that the person experienced.⁵⁰

In the context of health care decision-making, policymakers typically focus on physical outcomes of treatment, most commonly morbidity and mortality data.⁵¹ But such measures are only part of the broader idea of patient welfare in the sense of subjective well-being.⁵² The idea of well-being captures how people perceive their lives are going and therefore represents satisfaction with life and the presence of positive emotions and moods such as contentment and happiness.⁵³

49. JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION 12–13 (J.H. Burns & H.L.A. Hart eds., 1996) (1789) (“An action then may be said to be conformable to the principle of utility . . . (meaning with respect to the community at large) when the tendency it has to augment the happiness of the community is greater than any it has to diminish it.”); *see also* PETER SINGER, PRACTICAL ETHICS 14 (2d ed. 1993) (articulating an interest-based theory of utility).

50. BENTHAM, *supra* note 49, at 13.

51. *Well-Being Concepts*, CTRS. FOR DISEASE CONTROL & PREVENTION (May 22, 2016), <https://www.cdc.gov/hrqol/wellbeing.htm> [<https://perma.cc/J6ES-C58Q>].

52. *See, e.g., Quality Measures and Performance Standards*, CTRS. FOR MEDICARE & MEDICAID SERVS. (Mar. 2, 2015), https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Quality_Measures_Standards.html [<https://perma.cc/777X-TE2V>] (defining metrics to measure health quality).

Note that the terms “well-being” and “welfare” are often used interchangeably in the literature, and this Article treats them as essentially synonyms, although a distinction may be drawn between well-being, which connotes an affective state, and welfare, which does not. “Welfare” has a secondary meaning in the United States referring to a collection of government programs such intended to help the poor, but that is not the sense in which “welfare” is used here. *Wellbeing and Welfare*, LIBR. OF ECON. & LIBERTY, <http://www.econlib.org/library/Topics/College/wellbeingandwelfare.html> [<https://perma.cc/WT33-D7ML>].

53. *See, e.g.,* ED DIENER ET AL., WELL-BEING FOR PUBLIC POLICY (2009); BRUNO S. FREY & A. STUTZER, HAPPINESS AND ECONOMICS (2002); Ed Diener & William Tov, *National Accounts of Well-Being*, in HANDBOOK OF SOCIAL INDICATORS AND QUALITY OF LIFE RESEARCH 137, 137 (Kenneth C. Land, Alex C. Michalos & M. Joseph Sirgy eds., 2012) (“Subjective well-being is known colloquially as ‘happiness’ and refers to the various ways in which people evaluate their lives positively. . . . In terms of conscious thought, it involves judging life to be satisfying and fulfilling.”).

Although this Article adopts the view that subjective well-being provides the best account of human welfare, one need not agree to still believe that the ability to measure subjective well-being still provides important information about welfare. Virtually all theories of welfare treat subjective

It may be the case that a good physical outcome and a patient's well-being are synchronous. But one could also imagine situations where an outcome is considered "good" by traditional medical standards, but a patient is nonetheless unhappy. Consider the cancer patient who beats the odds and lives ten years longer than expected, but because of the side effects from treatment, the patient's quality of life is so poor that the patient is unhappy. That patient may have positive health outcomes but negative well-being. As a result, the concept of well-being is purposely broader than physical outcomes alone.⁵⁴

Maximizing well-being requires being able to identify what outcomes will make people happier—but it is hard for policymakers to do so without being able to measure internal mental states.⁵⁵ The difficulty in measuring and predicting well-being, in part, caused the autonomy value in health care decision-making to gain favor.⁵⁶

C. *History of the Informed Consent Doctrine and Emergence of the Autonomy Value as Predominant*

Health care decision-making is legally governed by the doctrine of informed consent. The doctrine evolved largely in response to backlash against a more paternalistic system and difficulties in designing a system to prioritize patient well-being. As a result, informed consent doctrine is now firmly rooted in a concern for patient autonomy.

1. *Paternalism Once Dominated Health Care*

For much of their history, health care law and policy were deeply paternalistic.⁵⁷ In a paternalistic system, physicians make decisions for

happiness as an important constituent, so understanding how treatments make people feel will be important under any definition of welfare. See John Bronsteen, Christopher Buccafusco & Jonathan S. Masur, *Welfare as Happiness*, 98 GEO. L.J. 1583, 1590 (2010) (discussing the role of subjective well-being in welfare theories).

54. For further discussion of outcome data and hedonic data, see *infra* section IV.B.

55. Nineteenth-century economist Francis Edgeworth proposed the development of a "hedonimeter" to measure people's experiences, but his suggestion was rendered at least temporarily obsolete by a paradigm shift in the social sciences. FRANCIS YSIDRO EDGEWORTH, *MATHEMATICAL PSYCHICS: AN ESSAY ON THE APPLICATION OF MATHEMATICS TO THE MORAL SCIENCES* 98–102 (1881). On Edgeworth, see David Colander, *Retrospectives: Edgeworth's Hedonimeter and the Quest to Measure Utility*, 21 J. ECON. PERSP. 215, 216–19 (2007).

56. Although note that considerable strides have been made in measuring well-being. See discussion at *infra* section IV.B.2.

57. See MARSHA GARRISON & CARL E. SCHNEIDER, *THE LAW OF BIOETHICS: INDIVIDUAL AUTONOMY AND SOCIAL REGULATION* 41 (2003) ("For years, medical paternalism—the belief that doctors should make decisions for patients—ruled.").

patients without regard to patients' individual preferences and often without patients' full knowledge or consent.⁵⁸ Paternalism prioritizes patient well-being under the premise that physicians best identify welfare-maximizing choices for patients. The language of the 1847 *Code of Medical Ethics* of the American Medical Association, titled "Obligations of Patients to Their Physicians," illustrates the philosophy of the time:

The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinions as to their fitness, to influence his attention to them.⁵⁹

It was the era of "doctor knows best." Patients were treated as being simple-minded when it came to medicine. They were taught to trust in the expertise of their physicians. Indeed, before the twentieth century, there was no requirement that patients even consent to procedures.⁶⁰ Doctors were bound by the Hippocratic Oath, requiring that they do no harm, and were generally thought to be responsible for making decisions to promote their patients' well-being.⁶¹

Prior to the twentieth century, physicians generally bore no legal responsibility for obtaining consent before treating patients.⁶² Given the paternalist bent of the times, this is not surprising. Physicians were responsible for making decisions to further the welfare of their patients, not to effectuate the decisions of patients who were not experts in the practice of medicine. Early twentieth-century cases including *Mohr v. Williams*⁶³ and *Schloendorff v. Society of New York Hospital*⁶⁴ first

58. Paternalism in general refers to constraining autonomous choice without consent for the purpose of helping or protecting someone. See Jessica L. Roberts & Elizabeth Weeks Leonard, *What Is (and Isn't) Healthism?*, 50 GA. L. REV. 833 (2016) (citing Lindsay J. Thompson, *Paternalism*, in ENCYCLOPEDIA OF BUSINESS ETHICS & SOCIETY 1 (Robert W. Kolb ed., 2008)).

59. See Walter Wadlington, *Breaking the Silence of Doctor and Patient*, 93 YALE L.J. 1640, 1643 (1984) (quoting AMERICAN MEDICAL ASSOCIATION CODE OF MEDICAL ETHICS 1847, at 232).

60. See *Mohr v. Williams*, 104 N.W. 12 (Minn. 1905) (medical consent first recognized as a legal requirement in the United States).

61. Professional Codes of Ethics dominated during this period, as well. The medical profession was viewed as one that could self-regulate to promote the good of its patients. See PAUL STARR, *THE SOCIAL TRANSFORMATION OF AMERICAN MEDICINE* (1982).

62. See RUTH R. FADEN & TOM L. BEAUCHAMP, *A HISTORY AND THEORY OF INFORMED CONSENT* 14 (1986); Valerie Gutmann Koch, *A Private Right of Action for Informed Consent in Research*, 45 SETON HALL L. REV. 173, 178 (2015); Jonathan F. Will, *A Brief Historical and Theoretical Perspective on Patient Autonomy and Medical Decision Making*, 139 CHEST 669, 669–73 (2011). But see P. Dalla-Vorgia et al., *Is Consent in Medicine a Concept Only of Modern Times?*, 27 J. MED. ETHICS 59, 59–61 (2001).

63. 108 N.W. 818, 819 (Minn. 1906) (holding physician liable for failing to obtain consent when physician was supposed to operate on right ear but instead operated on left).

articulated legal requirements that physicians obtain the consent of their patients prior to treatment. But these were battery cases about the need to obtain basic consent to a procedure, not about whether the consent was adequately informed or who made the treatment choice in the first place.⁶⁵

2. *Commitment to Autonomy Emerged*

Gradually, over the course of the twentieth century, paternalist efforts to improve people's lives fell out of favor across society generally.⁶⁶ Specifically, medical paternalism fell out of favor and was replaced by a commitment to patient choice.⁶⁷

Trust in patient decision-making emerged, in part, due to increasing distrust in physician decision-making.⁶⁸ Particularly in the 1950s and 1960s, the ascension of this view had quite practical roots. Paternalistic physicians were obliged to act in the best interests of their patients. In reality, though, physicians have been influenced by a variety of incentives that might conflict with the incentive to promote a patient's well-being. For instance, surgeons might recommend a more aggressive surgical approach rather than medical treatment, in part, because it will increase their personal compensation.⁶⁹ Or physicians might undertake a risky procedure no one else has accomplished, motivated by desire for

64. 105 N.E. 92 (N.Y. 1914) (finding liability in battery and recognizing a right to medical self-determination where physician did surgery on patient during a routine exam without consent).

65. See *Bonner v. Moran*, 126 F.2d 121, 122 (D.C. Cir. 1941) (holding that surgery is a technical battery unless there is consent by the patient); *Nolan v. Kechijian*, 64 A.2d 866, 868 (R.I. 1949) (“[A]n operation without consent . . . constitutes a . . . battery. . . .”); *Physicians’ & Dentists’ Bus. Bureau v. Dray*, 8 Wash. 2d 38, 111 P.2d 568, 569 (1941) (explaining that an unauthorized operation is a battery).

66. See Sawicki, *supra* note 30.

67. See *id.* (noting that the doctrine of informed consent arose in the mid-twentieth century in part in response to dissatisfaction with medical paternalism); AM. HOSP. ASSOC., A PATIENT’S BILL OF RIGHTS (1973, rev. 1992); The Patient Self-Determination Act of 1990, Omnibus Budget Reconciliation Act of 1990, Pub. L. No. 101-508, §§ 4206, 4751, 104 Stat. 1388, 1388-115-17, 1388-204-06 (codified as amended in scattered sections of 42 U.S.C.).

68. See Alfred I. Tauber, *Sick Autonomy*, 46 PERSP. BIOLOGY & MED. 484, 484-85 (2003) (noting the unsettling of confidence in government, education, and medicine during the Vietnam era).

69. This problem is still prevalent to this day. Studies have found that the highest-paid physicians are those that offer more services per patient, rather than treating more patients. See Andrew Soergel, *Study: Doctors Paid More for Multiple Procedures Rather than for Multiple Patients*, U.S. NEWS & WORLD REP. (Dec. 8, 2014, 4:51 PM), <http://www.usnews.com/news/newsgram/articles/2014/12/08/study-doctors-paid-more-for-multiple-procedures-than-for-multiple-patients> [<https://perma.cc/KD7Y-4DLL>].

professional acclaim. Accordingly, broad support emerged for the view that decisions should be left to the people who will be most personally affected by them—the patients.⁷⁰

A growing trust in individual rationality—along with the theory that if we give people good enough information,⁷¹ they will rationally choose that which will increase their own utility—also bolstered the move from paternalism to autonomy.⁷² According to the rational choice model of human decision-making, letting people choose for themselves was the best way for them to improve their well-being.⁷³ This approach, dominant in law and economics scholarship of the past half century, significantly influenced many areas of the law.⁷⁴

Trust in individual decision-making also grew with the rise of American consumerism. Following the Great Depression and World War II, Americans saw their spending power increase and the marketplace for goods proliferate.⁷⁵ Choice became much more central to the American existence than it had been before. And the health care story mirrored that of society more generally. Advances in medical technology provided more treatment options and more choice.⁷⁶ And patients began to see themselves as having a right to become educated about and make their own medical decisions.⁷⁷ Importantly, the proliferation in medical treatment options highlighted the possibility of

70. See Sawicki, *supra* note 30.

71. OMRI BEN-SHAHAR & CARL E. SCHNEIDER, MORE THAN YOU WANTED TO KNOW: THE FAILURE OF MANDATED DISCLOSURE 5 (2014) (“Mandated disclosure is alluring because it resonates with two fundamental American ideologies. The first is the free market principle. Markets work best when buyers are informed; disclosures inform them.”).

72. Wells, *supra* note 35, at 165–69.

73. See Thomas S. Ulen, *Rational Choice Theory in Law and Economics*, in 1 ENCYCLOPEDIA OF LAW AND ECONOMICS 790, 803 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000).

74. See BEN-SHAHAR & SCHNEIDER, *supra* note 71, at 50 (citing Proprietary Vocational & Home Study Schs., 43 Fed. Reg. 60,796, 60,805 (Dec. 28, 1978)) (suggesting the prevalence in U.S. law of a more information is better mantra along these lines) (“It is a basic tenet of our economic system that information in the hands of consumers facilitates rational purchase decisions; and, moreover, is an absolute necessity for efficient functioning of the economy.”).

75. Lizabeth Cohen, *A Consumers’ Republic: The Politics of Mass Consumption in Postwar America*, 31 J. CONSUMER RES. 236, 236–37 (2004).

76. See EDWARD P. RICHARD & KATHARINE C. RATHBUN, MEDICAL CARE LAW 235 (1999) (“After World War II, the U.S. Government began to subsidize and otherwise encourage the construction of hospitals and the training of physicians. Technology became more important in medical practice . . . This trend continued through the 1950s, with technology-based medicine becoming the norm in the 1960s.”).

77. See HELENA LEINO-KILPI ET AL., PATIENT’S AUTONOMY, PRIVACY AND INFORMED CONSENT 55 (2000) (citation omitted) (“The modern medical era which started after World War II, might be called the Age of Autonomy.”).

heterogeneity in patients' individual preferences.⁷⁸ In this sense, health care decisions became more like car shopping.⁷⁹ Accordingly, letting people make decisions consistent with their preferences seemed to make the most sense, particularly because no outside third-party could effectively predict what those preferences might be in any given scenario. Relatedly, a perceived impossibility at structuring a system around patient well-being left patient choice as the only plausible option.⁸⁰

3. *Autonomy Value Became Entrenched in Informed Consent Doctrine*

Against this backdrop, the second half of the twentieth century witnessed the emergence and subsequent entrenchment of the law's commitment to autonomy in the development of the doctrine of informed consent.

The law moved from a battery approach to a negligence approach and came to hold that mere consent was no longer enough. In *Canterbury v. Spence*,⁸¹ the court held that physicians have a duty to provide certain information to patients in securing their consent to procedures.⁸² There, a physician did not disclose the risks of a back surgery to a patient prior to obtaining the patient's consent to the surgery.⁸³ Following the surgery, the patient fell and suffered near complete paralysis. The court discussed the physician's "duty of risk disclosure" and held that the standard of disclosure should be determined by law and not by the medical profession itself.⁸⁴

78. So-called "preference-sensitive care" emerged, which offered treatment alternatives for which there was no universally agreed-upon medical choice. *See, e.g.*, HEALTH CARE DELIVERY IN THE UNITED STATES (James R. Knickman & Anthony R. Kovner eds., 11th ed. 2015) ("[F]or preference-sensitive care there is evidence for providing alternative clinical interventions for the same condition. This is apparent in the case of chronic stable angina (medical treatment versus angioplasty versus bypass surgery), back pain due to herniated disc or spinal stenosis (medical treatment versus back surgery), and early stage prostate cancer (watchful waiting versus radiation versus radical prostatectomy)."); *see also supra* note 27.

79. *See generally* Mark A. Hall & Carl E. Schneider, *Patients as Consumers: Courts, Contracts, and the New Medical Marketplace*, 106 MICH. L. REV. 643 (2008).

80. However, we now have useful if not perfect methods to help predict patient well-being. *See infra* section IV.B.

81. 464 F.2d 772 (D.C. Cir. 1972).

82. *See* Barbara L. Atwell, *The Modern Age of Informed Consent*, 40 U. RICH. L. REV. 591, 596 (2006) ("Informed consent, then, is designed to protect patients by ensuring that they have the material information with which to make an informed choice.").

83. *Canterbury*, 464 F.2d at 786–87.

84. *Id.* at 781, 784–85.

Today, there are two different views of the duty to disclose that a physician owes a patient. About half the states subscribe to the physician-based standard, which requires the physician to inform a patient of the risks, benefits, and alternatives that a “reasonably prudent” doctor practicing in the field would.⁸⁵ In the other half of the states, the focus is on what the patient would want to know before making the decision—a reasonable patient standard.⁸⁶ The reasonable patient standard generally means a higher bar for physicians to meet, but the physician’s duty under either standard is to disclose. And the parameters of that duty are defined by reference to professional custom or a reasonable, objective patient.⁸⁷

The informed consent duty, in general, means that a doctor must explain the available treatment options and the attendant risks and benefits to the patient.⁸⁸ In practical terms, a doctor will typically present treatment or procedure options and describe the risks and benefits of those treatments or of choosing to do nothing at all. Failure to do this properly—that is, the process of informing the patient in order to then obtain “informed” consent—will result in liability (assuming the patient sues).⁸⁹ But after being provided the required information, the *patient* makes the decision, consistent with the preeminence that has come to be attached to the autonomy value.⁹⁰

85. King & Moulton, *supra* note 30, at 440.

86. *Id.*

87. *Id.* at 438, 443 (“While this standard makes large strides in the name of patient autonomy, it assumes that all patients value risks and benefits similarly. As a result, it is based on the needs of an objective or reasonable patient, rather than the subjective patient who will actually undergo the procedure.”).

88. *See* Sheley, *supra* note 29, at 68–77 (surveying informed consent law).

89. *Id.* at 76.

90. As long as the patient is competent to make the decision, the physician bears no responsibility for what decision is made. *See* Cathy J. Jones, *Autonomy and Informed Consent in Medical Decisionmaking: Toward a New Self-Fulfilling Prophecy*, 47 WASH. & LEE L. REV. 379, 424 (1990) (noting general deference to patient after disclosure of risks). Indeed, even if the physician were to want to override a poor decision, the law provides no opening for the physician to do so. *See* THOMAS GRISSO & PAUL S. APPELBAUM, *ASSESSING COMPETENCE TO CONSENT TO TREATMENT* (1998) (discussing requirement of competency to make medical decisions). The law also does not provide for the scenario where a patient does not want to decide and *wants* to defer to the physician. *See* CASS R. SUNSTEIN, *CHOOSING NOT TO CHOOSE* (2015).

4. *Rationale for Autonomy-Centric Informed Consent Doctrine*

Scholars and lawmakers justify current doctrine on two bases. First, much of the commitment to informed consent relates to the deontic right to self-determination.⁹¹ As Marjorie Maguire Shultz notes:

[T]he more intense and personal the consequences of a choice and the less direct or significant the impact of that choice upon others, the more compelling the claim to autonomy in the making of a given decision. Under this criterion, the case for respecting patient autonomy in decisions about health and bodily fate is very strong.⁹²

But informed consent doctrine is also strongly promoted as the best proxy for patient well-being.⁹³ However, here, well-being means something different than Bentham's view of well-being or welfare as happiness. Rather, this argument is that people have more "welfare" to the extent that they get more of what they want—that is, to the extent that they are more able to satisfy their preferences.⁹⁴ Daniel Kahneman refers to this account of welfare as "decision utility" in contrast to Bentham's "experienced utility," because the former uses people's choices as the best measure of what is good for them.⁹⁵

To adopt this conception of well-being, one has to make certain important assumptions about people's behavior. First, people must have or be capable of forming stable, reasonably well-defined preferences. They must actually prefer state *A* over state *B*, presumably for the reason

91. Carl Schneider, *After Autonomy*, 41 WAKE FOREST L. REV. 411, 417–18 (2006).

92. Marjorie Maguire Shultz, *From Informed Consent to Patient Choice: A New Protected Interest*, 95 YALE L.J. 219, 220 (1985) (arguing that patient preferences generally ought to be controlling); see also King & Moulton, *supra* note 30, at 435 ("Self-determination is the subset of autonomy most commonly associated with informed consent and health care, such that decisions originate freely from an autonomous agent, who understands the facts and can engage in practical reasoning to come to a decision.").

93. See MATTHEW ADLER, WELL-BEING AND FAIR DISTRIBUTION: BEYOND COST-BENEFIT ANALYSIS 50–51 (2012) (describing conceptions of well-being); LIONEL ROBBINS, AN ESSAY ON THE NATURE AND SIGNIFICANCE OF ECONOMIC SCIENCE 86, 89 (1932).

94. See, e.g., DANIEL M. HAYBRON, THE PURSUIT OF UNHAPPINESS: THE ELUSIVE PSYCHOLOGY OF WELL-BEING 34 (2008) ("The dominant account among economists and philosophers over the last century or so . . . identifies well-being with the satisfaction of the individual's desires."). Of course it is possible that the act of choosing itself is welfare-enhancing, in which case the line between welfare and autonomy may blur. A patient might experience more relative happiness, at least in the short-term, in the act of making the decision even if it does not result in the best possible outcome later.

95. See Daniel Kahneman et al., *Back to Bentham? Explorations of Experienced Utility*, 112 Q.J. ECON. 375, 375–77 (1997).

that state *A* will be better for them than state *B*.⁹⁶ Accordingly, people must be capable of making judgments about what will be better for them and about how the attributes of the alternatives will affect them. Finally, people must be able to make rational choices related to these judgments that are not systematically influenced by irrelevant factors.⁹⁷ This does not mean that people have to be perfect choosers—only that the errors they make should be randomly rather than systematically distributed around whatever the “correct” answer is. If these assumptions are correct, then individuals’ autonomous choices offer the best proxy for their well-being.⁹⁸

Indeed, the belief in autonomy as begetting well-being is prevalent in the literature.⁹⁹ Medical scholars and legal scholars have both fervently argued that promoting decisional autonomy actually leads to better patient outcomes. Ruth Faden and Tom Beauchamp illustrate:

Standing behind the position that authority should rest with the patients or subjects may be the goal of benefiting patients and subjects by enabling them to make the decision that best promotes their own welfare. Promotion of the value of autonomous choice in medical decisionmaking by patients is often justified by arguments from beneficence to the effect that decisional autonomy by patients enables them to survive, heal, or otherwise improve their own health.¹⁰⁰

In 1982, the President’s Commission for the Study of Ethical Problems in Medicine opined that patient autonomy in medical decision-making promotes “patient well-being” and “therapeutic gains.”¹⁰¹ Others have argued that the exercise of autonomy allows patients “to protect

96. *Id.*

97. *Id.*

98. According to some strands of philosophy, preference satisfaction is not simply a proxy for welfare but actually constitutes welfare. See ADLER, *supra* note 93 at 50.

99. BEN-SHAHAR & SCHNEIDER, *supra* note 71, at 39.

100. RUTH R. FADEN & TOM L. BEAUCHAMP, A HISTORY AND THEORY OF INFORMED CONSENT 14 (1986); see also PRESIDENT’S COMM’N FOR THE STUDY OF ETHICAL PROBLEMS IN MED. & BIOMED. & BEHAVIORAL RESEARCH, MAKING HEALTH CARE DECISIONS: THE ETHICAL AND LEGAL IMPLICATIONS OF INFORMED CONSENT IN THE PATIENT-PRACTITIONER RELATIONSHIP 18–23 (1982) (patient autonomy in medical decision-making promotes “patient well-being” and “therapeutic gains”); Ben-Shahar & Schneider, *supra* note 46, at 681 (mandated disclosure rules like informed consent serve the autonomy principle by “suppos[ing] that people make better decisions for themselves than anyone can make for them and that people are entitled to freedom in making decisions”).

101. PRESIDENT’S COMM’N FOR THE STUDY OF ETHICAL PROBLEMS IN MED. & BIOMED. & BEHAVIORAL RESEARCH, *supra* note 100, at 18–23.

their well-being as they themselves define it,”¹⁰² and that “[s]o long as an individual decides in light of adequate information, and chooses freely, she will act to promote her *subjective* well-being”¹⁰³ According to Nadia Sawicki, there is widespread belief in the medical field that “allowing patients to make autonomous choices ultimately promotes their welfare by leading to objectively better choices.”¹⁰⁴ That the autonomy model might permit patients to experience “other benefits, such as greater feelings of competence and control,” is also frequently mentioned in support of the model.¹⁰⁵ Accordingly, most policymakers agree that allowing patients to direct their treatment promotes *both* of the law’s two most important goals for regulating health care.

If patients, presented with good information, could be trusted to accurately select among the treatment options that are made available to them, then current doctrine would indeed seem to answer both deontic concerns about patient autonomy and instrumental concerns about patient well-being. But as Part II illustrates, there is significant reason to doubt that patient choice often results in maximizing patient well-being.

II. PATIENTS OFTEN MAKE BAD DECISIONS

The law’s belief that autonomy and informed consent will generate patient well-being arises from its assumption that patients have stable preferences and that patients are generally good at taking those preferences and making health treatment decisions that will make their lives better off. There is a mountain of evidence showing that these assumptions are fundamentally flawed. Patients both lack stable preferences and succumb to a series of decision-making biases that systematically undermine their ability to choose what is best for them. Poor decision-making has dire consequences not just for the individuals making the decisions but also for the health care system more generally, which often bears the cost of bad decisions.¹⁰⁶

102. Robert M. Arnold et al., *Opioid Contracts in Chronic Nonmalignant Pain Management: Objectives and Uncertainties*, 119 J. GEN. INTERNAL MED. 292, 293 (citing JESSICA W. BERG ET AL., *INFORMED CONSENT: LEGAL THEORY AND CLINICAL PRACTICE* (2001)).

103. Daniel P. Sulmasy, *Informed Consent Without Autonomy*, 30 FORDHAM URB. L.J. 207, 209 (2002).

104. Sawicki, *supra* note 30, at 827; *see also* Isaac Buck, *Overtreatment and Informed Consent*, 43 FLA. ST. U. L. REV. 901, 917 (2016) (“Beyond satisfying the bioethical tenet of autonomy and the law’s concern with bodily integrity, it may simply be the case that patients just make better decisions as they are free from notable pressures.”).

105. *See* Schuck, *supra* note 29, at 943.

106. For evidence that bad decision-making negatively impacts the cost of health care in the United States, *see infra* notes 166–72 and accompanying text.

A. *Many Patients Do Not Have Stable Preferences About Care*

Much of the law's commitment to autonomy as a mechanism for maximizing patient welfare relies on the notion that patients have heterogeneous yet stable preferences about options and treatments.¹⁰⁷ Just as an individual might reliably prefer coffee rather than tea, people are thought to have stable preferences as to health care. Some may be more cost sensitive, while others may care more about pain or longevity. Allowing patients to actualize their preferences through choice means they can express these differences.¹⁰⁸ However, the behavioral sciences literature casts this story into deep doubt.¹⁰⁹

Across many decision-making fields, people's preferences are not stable and well-defined. Their preferences are *constructed* by the nature of the decision-making task, and they change relative to irrelevant information.¹¹⁰ While people may have stable preferences for things that they consume regularly,¹¹¹ they do not have stable preferences for wait-and-see versus spinal fusion surgery. The fundamental belief of the orthodox informed consent literature—that patients have beliefs and preferences that doctors can tap into and comply with—is deeply flawed in the context of most meaningful medical decisions. Many patients do not have preferences at all about these decisions and prefer for others to decide for them.¹¹² And even if a given patient is more cost-sensitive than most, the complexity of medical decision-making requires much more knowledge about her preferences than that. How much more sensitive is she? How is she willing to trade off cost versus pain or quality of life? Most patients have never developed preferences about

107. See, e.g., Gretchen B. Chapman & Arthur S. Elstein, *Cognitive Processes and Biases in Medical Decision Making*, in *DECISION MAKING IN HEALTH CARE: THEORY, PSYCHOLOGY, AND APPLICATIONS* 183 (Gretchen B. Chapman & Frank A. Sonnenberg eds., 2000).

108. This is a prevalent argument in the literature supporting the autonomy value. See, e.g., *supra* notes 44–45.

109. See, e.g., Paul Slovic, *The Construction of Preference*, 50 *AM. PSYCHOL.* 364, 367 (1995).

110. See generally GIUSEPPE CARENINI & DAVID POOLE, *CONSTRUCTED PREFERENCES AND VALUE-FOCUSED THINKING: IMPLICATIONS FOR AI RESEARCH ON PREFERENCE ELICITATION* (2002).

111. Dan Ariely's work even casts doubt on whether people have stable preferences for these sorts of quotidian choices. Dan Ariely, George Loewenstein & Drazen Prelec, *Tom Sawyer and the Construction of Value*, 60 *J. ECON. BEHAV. & ORG.* 1 (2006) (showing that in some cases, people do not even have a pre-existing sense of whether an experience is good or bad and that they can be manipulated into choosing different options).

112. See SUNSTEIN, *supra* note 90 (discussing evidence that patients often do not want to make medical decisions).

these trade-offs, and now, once they are sick, they are being asked to do so on the spot.

Moreover, even to the extent that they may have some general preferences about treatment, there is every reason to believe that the core of stability may be easily overwhelmed by the effects of decision frames¹¹³ and judgment heuristics.¹¹⁴ According to Daniel Kahneman and Amos Tversky's influential account of decision-making, which they call "prospect theory," people evaluate options not in the abstract but with regard to available reference points.¹¹⁵ People are differentially sensitive to different sorts of reference points. For example, Kahneman and Tversky have shown that people are much more concerned about loss of a given magnitude than they are by an equivalent gain.¹¹⁶ Yet whether the amount is viewed as a loss or as a gain is a matter of how the decision is framed. In a famous study,¹¹⁷ Tversky and Kahneman gave half of their subjects the following question:

Imagine that the U.S. is preparing for the outbreak of an unusual Asian disease, which is expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Assume that the exact scientific estimate of the consequences of the programs is as follows:

If Program A is adopted, 200 people will be saved. [72 percent]

If Program B is adopted, there is a 1/3 probability that 600 people will be saved, and 2/3 probability that no people will be saved. [28 percent]

Which of the two programs would you favor?¹¹⁸

The other half of the subjects received the same statement but two different descriptions of the treatment choices:

If Program C is adopted 400 people will die. [22 percent]

113. A decision frame describes the fact that choosers make different choices depending on the way in which the choice is presented. See, e.g., Amos Tversky & Daniel Kahneman, *The Framing of Decisions and the Psychology of Choice*, 211 *SCI.* 453, 453 (1981).

114. A judgment heuristic describes a rule or simplification mechanism that a chooser may employ in making a decision, such as focusing on one aspect of a problem and ignoring other information. Heuristics can be useful but can also lead to systematic errors in decision-making. *Id.*

115. Tversky and Kahneman, *supra* note 113, at 454; see also Jacob Goldin, *Which Way to Nudge? Uncovering Preferences in the Behavioral Age*, 125 *YALE L.J.* 226, 237–38 (2015) (describing framing effects and noting that "a key insight from behavioral economics is that . . . seemingly arbitrary features of the decision may also affect which option people choose"); Yuval Salant & Ariel Rubinstein, (A, f): *Choices with Frames*, 75 *REV. ECON. STUD.* 1287 (2008).

116. Tversky and Kahneman, *supra* note 113, at 453.

117. *Id.*

118. *Id.*

If Program D is adopted there is 1/3 probability that nobody will die, and 2/3 probability that 600 people will die. [78 percent]

Which of the two programs would you favor?¹¹⁹

Notice that the choices between the two options are identical in both conditions except for the way in which the outcomes are framed. Program A is identical to Program C, and the same is true for Programs B and D. Yet, subjects given the first frame (the choice between A or B) overwhelmingly chose Program A (72%), while those given the second frame (the choice between C and D) chose Program D by an equally large margin (78%).¹²⁰ In the first frame, people were attracted to the “sure thing” in Program A, which seemed to guarantee a certain number of lives saved. Subjects were not inclined to take the risk of killing more people. Yet in the second frame, subjects evaluated the Program D in light of the certainty of killing 400 people. Given this “loss frame,” people were risk-seeking about the possibility of saving all of the lives.

Similarly, Cass Sunstein gives the example of a patient deciding whether or not to have an operation. If the patient is told that of 100 people who have the surgery, ninety are alive after five years, they are far more likely to agree to the surgery than if the patient is told that ten are dead.¹²¹

Frames do not affect which choice is the most welfare-enhancing for the individual. Rather, they induce an individual to make a choice for reasons *unrelated* to the individual’s well-being.¹²² In general, patients’ preferences are highly likely to be constructed with reference to the decision-making frame. The rational, stable decision-maker of the informed consent literature is a chimera.

B. *Patients Often Do Not Maximize Well-Being: Affective Forecasting Errors and Other Biases*

Important social scientific findings in the last half-century of research have also demonstrated that human decision-making is beset by a host of heuristics and biases that systematically undermine rational choice.¹²³

119. *Id.*

120. *Id.*

121. See CASS R. SUNSTEIN, WHY NUDGE? THE POLITICS OF LIBERTARIAN PATERNALISM 29 (2014).

122. See Goldin, *supra* note 115, at 238; Christopher K. Hsee et al., *Hedonomics: Bridging Decision Research with Happiness Research*, 3 PERSP. ON PSYCHOL. SCI. 224, 231–37 (2008). See generally Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 263 (1979).

123. See Hillel J. Einhorn, *Learning From Experience and Suboptimal Rules in Decision-*

Scholars in economics, psychology, neuroscience, and a host of other fields have catalogued the many ways in which people deviate from rational appraisals of risk and probability.

Expected utility theory—the dominant normative account of human decision-making—suggests that when people confront judgments, they should act according to the costs and benefits of the different options, taking into account the probability of each outcome.¹²⁴ In the case of a patient choosing between two treatment options for a disease, the theory holds that the patient should compare the potential benefits of the two options, as well as the probable risks associated with each one, and select the option in which the ratio of benefits to costs is highest.¹²⁵

However, emerging research suggests people's decisions are in fact influenced by irrelevant information that often causes serious mistakes in judgment.¹²⁶ Patients weighing risky medical procedures are especially likely to suffer from these sorts of biases.¹²⁷ Obviously, weighing costs and benefits and estimating probabilities are difficult tasks, so we should not expect people to be perfect at this task. We should expect, however, that in the long run, or across a large enough population, random errors will balance out. What the decision-making research shows, though, is that people often make *systematic* errors in these tasks. As a result, people do not always pick what will make them happiest.¹²⁸

1. *Affective Forecasting Errors*

For instance, one category of errors people often make when they contemplate the hedonic consequences of a great variety of situations or life events are *affective forecasting errors*—which lead to systematic

Making, in JUDGEMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES 268 (Daniel Kahneman et al. eds., 1982).

124. See Brian J. Cohen, *Is Expected Utility Theory Normative for Medical Decision-Making?*, 16 MED. DECISION MAKING 1, 1–6 (1996). See generally Milton Friedman & L.J. Savage, *The Expected-Utility Hypothesis and the Measurability of Utility*, 60 J. POL. ECON. 463 (1952).

125. See M.G. MYRIAM HUNINK ET AL., DECISION MAKING IN HEALTH AND MEDICINE: INTEGRATING EVIDENCE AND VALUES 53 (2d ed. 2014).

126. George Loewenstein et al., *Projection Bias in Predicting Future Utility*, 118 Q.J. ECON. 1209, 1238 (2003).

127. Donald A. Redelmeier et al., *Understanding Patients' Decisions: Cognitive and Emotional Perspectives*, 270 JAMA 72, 72–76 (1993).

128. Neal V. Dawson & Hal R. Arkes, *Systematic Errors in Medical Decision Making*, 2 J. GEN. INTERNAL MED. 183, 183 (1987); David E. Kanouse, *Explaining Negativity Biases in Evaluation and Choice Behavior: Theory and Research*, 11 ADVANCES IN CONSUMER RES. 703, 706 (1984).

mispredictions about how situations would make people feel.¹²⁹ It is not just that people estimating the effects of an illness, for example, make random errors about how suffering from the illness will make them feel. Rather, they tend to make errors that skew strongly in one direction or another.¹³⁰

For example, people systematically overestimate both the magnitude and duration of the hedonic impacts of many negative life events including being denied tenure, being broken up with, and having one's favored sports team lose.¹³¹ And, importantly for present purposes, people tend to mispredict the effects of a variety of health-related conditions, including losing a limb, becoming a paraplegic, or utilizing a colostomy.¹³² In each of these cases and more, healthy people tend to think that experiencing those conditions will make them substantially less happy than it actually does and that they will suffer for a longer period than they actually do.¹³³

In study after study, healthy people predict that those suffering from diseases and disabilities feel much worse than those people actually report feeling.¹³⁴ For example, healthy people estimate that living with chronic dialysis results in a quality of life of 0.39 on a scale of 0 (as bad as death) to 1 (perfect health), while dialysis patients report their quality of life as 0.56. Similarly, although patients with colostomies report their

129. See Peter Ayton et al., *Affective Forecasting: Why Can't People Predict Their Emotions?*, 13 THINKING & REASONING 62, 68–70, 75–79 (2007); Jodi Halpern & Robert M. Arnold, *Affective Forecasting: An Unrecognized Challenge in Making Serious Health Decisions*, 23 J. GEN. INTERN. MED. 1708, 1708 (2008).

130. Peter A. Ubel et al., *Disability and Sunshine: Can Hedonic Predictions Be Improved by Drawing Attention to Focusing Illusions or Emotional Adaptation?*, 11 J. EXPERIMENTAL PSYCHOL.: APPLIED 111, 111 (2005).

131. See Daniel Kahneman, *Experienced Utility and Objective Happiness: A Moment-Based Approach*, in 1 THE PSYCHOLOGY OF ECONOMIC DECISIONS 187, 199 (Isabelle Brocas & Juan D. Carrillo eds., 2003).

132. See Norman F. Boyd et al., *Whose Utilities for Decision Analysis?*, 10 MED. DECISION MAKING 58, 63 (1990); C. Lundqvist et al., *Spinal Cord Injuries: Clinical, Functional, and Emotional Status*, 16 SPINE 78, 80 (1991); Vida L. Tyc, *Psychosocial Adaptation of Children and Adolescents with Limb Deficiencies: A Review*, 12 CLINICAL PSYCHOL. REV. 275, 276–77 (1992).

133. See Boyd, *supra* note 132, at 63; Lundqvist, *supra* note 132, at 80; Tyc, *supra* note 132, at 276–77.

134. See, e.g., Ubel et al., *supra* note 130, at 111 (“One of the most commonly replicated ‘happiness gaps’ is that observed between the self-rated quality of life of people with health conditions and healthy people’s estimates of what their quality of life would be if they had those conditions . . .”); Peter A. Ubel, *Misimagining the Unimaginable: The Disability Paradox and Health Care Decision Making*, 24 HEALTH PSYCHOL. S57, S57 (2005) (“Across a wide range of health conditions, patients typically report greater happiness and [quality of life] than do healthy people under similar circumstances.”).

quality of life as 0.92 on the same scale, healthy people estimate that living with a colostomy would yield only 0.80 quality of life.¹³⁵

Dan Gilbert and Tim Wilson suggest that affective forecasting errors are often caused by what they refer to as *focalism*.¹³⁶ When people contemplate what it would be like to become paraplegic, for example, they focus on all of the aspects of their lives that would change. In so doing, however, they ignore the typically larger aspects of their lives that remain the same.¹³⁷ The pleasures associated with reading a book, having a conversation, or drinking a glass of wine may not dissipate and may even increase.¹³⁸ Moreover, when people are asked what it would be like to be paraplegic, they tend to focus on what it would be like to *become* paraplegic. This overemphasizes the tragic moments of learning about the disability relative to the much longer period of having the disability.¹³⁹

Affective forecasting errors also arise because people neglect how rapidly they will recover emotionally from injuries and disabilities.¹⁴⁰ Since the 1970s, social scientists have been collecting overwhelming evidence of people's ability to *hedonically adapt* to many life events. Although the onset of many events, including many negative health states, is initially accompanied by deep unhappiness, people's psychological immune systems soon kick in, muting the intensity and duration of their suffering.¹⁴¹ Within a few years, many people who have experienced significant disabilities regain much of their pre-injury well-being.¹⁴²

But just as people often overestimate the magnitude and duration of the negative experience associated with some disabilities, they may systematically underestimate the negativity associated with other

135. Peter A. Ubel et al., *Do Nonpatients Underestimate the Quality of Life Associated with Chronic Health Conditions Because of a Focusing Illusion?*, 21 MED. DECISION MAKING 190, 190 (2001). The studies reported here also show the difficulty of debiasing healthy people with these focusing illusions.

136. Timothy D. Wilson & Daniel T. Gilbert, *Affective Forecasting: Knowing What to Want*, 14 CURRENT DIRECTIONS PSYCHOL. SCI. 131, 131 (2005).

137. Daniel T. Gilbert & Timothy D. Wilson, *Prospection: Experiencing the Future*, 317 SCI. 1351, 1353 (2007).

138. Peter A. Ubel et al., *supra* note 130, at 111.

139. David A. Schkade & Daniel Kahneman, *Does Living in California Make People Happy? A Focusing Illusion in Judgments of Life Satisfaction*, 9 PSYCHOL. SCI. 340, 344–45 (1998).

140. Daniel T. Gilbert et al., *Immune Neglect: A Source of Durability Bias in Affective Forecasting*, 75 J. PERSONALITY & SOC. PSYCHOL. 617, 634–35 (1998).

141. Ubel et al., *supra* note 130, at 111.

142. John Bronsteen, Christopher Buccafusco, & Jonathan S. Masur, *Hedonic Adaptation and the Settlement of Civil Lawsuits*, 108 COLUM. L. REV. 1516, 1529 (2008).

disabilities.¹⁴³ Some health problems, like chronic pain, migraine headaches, or ringing in the ears may prove resistant to adaptation because they do not easily fade into the background.¹⁴⁴ These issues may create long-lasting diminutions in well-being, but, because they seem relatively benign compared to losing a limb, people may underestimate how bad they will be.¹⁴⁵

2. *Other Heuristics and Biases*

A host of other biases and heuristics also means that patients will make treatment choices that will not necessarily maximize their welfare.¹⁴⁶ One well-documented problem concerns the *availability heuristic*, in which people estimate the probability of an event occurring based on the ease with which they can recall examples of it.¹⁴⁷ For example, people overestimate the ratio of deaths caused by airplane crashes to deaths caused by car accidents because the former are so vivid in people's memories.¹⁴⁸ Availability may substantially influence patient decision-making, as well, since some diseases and risks—cancer, heart

143. Cass R. Sunstein, *Illusory Losses* 1–39 (U. Chicago Pub. Law & Legal Theory, Working Paper No. 164, 2007).

144. *Id.* According to Dolan and Kahneman:

Whilst adaptation to changed health appears widespread, it is certainly not universal. There is, for instance, evidence of increased sensitisation to pain . . . Moreover, there is also evidence that coping with repeated episodes of pain leaves patients more vulnerable to stressful events . . . There is some evidence that people do not adapt to progressive diseases . . . in degenerative disorders and . . . in multiple sclerosis.

Paul Dolan & Daniel Kahneman, *Interpretations of Utility and Their Implications for the Valuation of Health*, 118 *ECON. J.* 215, 218 (citations omitted).

145. Shane Frederick & George Loewenstein, *Hedonic Adaptation*, in *WELL-BEING: THE FOUNDATIONS OF HEDONIC PSYCHOLOGY* 302, 302–29 (Daniel Kahneman et al. eds., 1999).

146. There are too many relevant heuristics and biases to adequately discuss here. I offer the examples in the text to give a sense of the problem but direct readers to the following sources for a fuller discussion of the relevant cognitive biases: Lori B. Andrews, *Informed Consent Statutes and the Decisionmaking Process*, 5 *J. LEGAL MED.* 163 (1984); Pat Croskerry et. al, *Cognitive Debiasing 1: Origins of Bias and Theory of Debiasing*, *BMJ QUALITY AND SAFETY* 1–7 (2013); Jason Ross Penzer, *Grading the Report Card: Lessons from Cognitive Psychology, Marketing, and the Law of Information Disclosure for Quality Assessment in Health Care Reform*, 12 *YALE J. ON REG.* 207, 242–43 (1995) (discussing cognitive biases relevant to consumer choice in the health care market); William M. Sage, *Regulating Through Information: Disclosure Laws and American Health Care*, 99 *COLUM. L. REV.* 1701, 1731 (1999); Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 *SCI.* 1124, 1124 (1974).

147. Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 *COGNITIVE PSYCHOL.* 207, 207 (1973).

148. *Id.*

disease, and various newsworthy epidemics such as Ebola or Zika virus—are substantially easier for many people to recall than others.¹⁴⁹

Another important set of biases involves how people respond to acting compared to non-acting. A wealth of research has suggested that when it comes to medical risks, healthy people often suffer from a substantial *omission bias*.¹⁵⁰ Thus, when comparing two choices, one of which involves acting and causing a certain amount of harm and the other involves doing nothing and causing more harm, people often choose to do nothing even though it is the riskier option.¹⁵¹ For example, many people choose not to take a flu vaccine to prevent an illness if it has a one percent chance of death although the risks of non-vaccination are substantially higher.¹⁵² Dying from the vaccine and dying from the flu both result in death, so all else equal, people should choose the outcome with the lower probability of death.¹⁵³ Nonetheless, many people do not want to feel responsible for choosing an action that may make them sick.¹⁵⁴

Interestingly, when the decision-making frame is flipped, from currently healthy to currently sick, people seem to exhibit an alternative *commission bias*.¹⁵⁵ Imagine that you've been diagnosed with cancer that has a five percent chance of killing you in the next five years. Your physician presents you with two options: Wait and See, which has a five percent chance of death, or Surgery, which has a ten percent chance of death. According to expected utility theory, Wait and See is clearly the better option. But according to studies by Angela Fagerlin and

149. This is not merely computational. Ellen Peters et al., *A Heuristics Approach to Understanding Cancer Risk Perception: Contributions from Judgment and Decision-Making Research*, 31 ANNALS BEHAV. MED. 45, 47–48 (2006).

150. Jennifer Amsterlaw et al., *Can Avoidance of Complications Lead to Biased Healthcare Decisions?*, 1 JUDGMENT & DECISION MAKING 64, 73 (2006); Mark Spranca et al., *Omission and Commission in Judgment and Choice*, 27 J. EXPERIMENTAL SOC. PSYCHOL. 76, 84–93 (1991).

151. Arthur S. Elstein et al., *Comparison of Physicians' Decisions Regarding Estrogen Replacement Therapy for Menopausal Women and Decisions Derived from a Decision Analytic Model*, 80 AM. J. MED. 246, 253–54 (1986).

152. David A. Asch et al., *Omission Bias and Pertussis Vaccination*, 14 MED. DECISION MAKING 118, 118–23 (1994).

153. This is not to suggest that these deaths are necessarily the same in terms of their effects on peoples' quality of life while they are sick. In the cited experiments, however, the risk of death from non-vaccination was substantially higher than from vaccination to account for any difference in dying more painfully from vaccination.

154. *Id.* at 120.

155. Pat Croskerry, *The Importance of Cognitive Errors in Diagnosis and Strategies to Minimize Them*, 78 ACAD. MED. 775, 778 (2003).

colleagues, most people would choose Surgery.¹⁵⁶ The tumor diagnosis, they suggest, has become a “call to action,” even though action is not often warranted.¹⁵⁷ The authors note, “people’s treatment decisions may be based not on the effectiveness of the treatments but rather on their beliefs about how cancer *should* be treated.”¹⁵⁸ The perception that cancer is an invasion that needs to be stopped significantly influences treatment choice in ways that are not necessarily rational.

The commission bias observed in these studies is likely a cause for the overtreatment and mistreatment of a number of diseases in the United States. Different prostate cancer treatments have very similar survival rates, but a significant proportion of men choose radical prostatectomy over watchful waiting even though the former has much greater side effects.¹⁵⁹ The same is likely true for breast cancer and radical mastectomy and the overreliance on coronary stents for patients with stable coronary artery disease.¹⁶⁰ According to the American Medical Association and the Joint Commission, as many as ten percent of elective stent placements may be inappropriate and another third medically questionable.¹⁶¹ That patients choose these procedures even when given complete information about the risks involved makes sense, however, in light of commission bias. Doing *something* feels better to many patients than doing nothing.

The above examples suggest the manifold ways in which patient decision-making can be systematically biased away from rational choices about their treatment. To this already long list could be added another series of challenges arising from the difficulties that many people face when dealing with numbers and probabilities. Many scholars have expressed concern about “innumeracy” among patients—effectively, being unable to understand numerical relationships in the

156. Angela Fagerlin et al., *Cure Me Even if It Kills Me: Preferences for Invasive Cancer Treatment*, 25 MED. DECISION MAKING 614, 616–19 (2005).

157. *Id.*

158. *Id.* at 618 (emphasis in original).

159. *Id.*

160. Bernard Fisher et al., *Reanalysis and Results After 12 Years of Follow-Up in a Randomized Clinical Trial Comparing Total Mastectomy With Lumpectomy With or Without Irradiation in the Treatment of Breast Cancer*, 333 NEW ENG. J. MED. 1456, 1457–61 (1995); Lindi H. VanderWalde & Stephen B. Edge, *Decisions Shared or Otherwise: The Ongoing Evolution of Local Therapy for Breast Cancer*, 32 J. CLINICAL ONCOLOGY 873, 873–74 (2014); Anahad O’Connor, *Heart Stents Still Overused, Experts Say*, N.Y. TIMES (Aug. 15., 2013), http://well.blogs.nytimes.com/2013/08/15/heart-stents-continue-to-be-overused/?_r=1 [<https://perma.cc/3H7P-EYJS>].

161. Fisher, *supra* note 160, at 1457–61; VanderWalde, *supra* note 160, at 873–74; O’Connor, *supra* note 160.

ways that illiterate people cannot understand written ones.¹⁶² This is particularly troubling in the medical context because the value of different treatment options often comes down to variations in numerical probabilities.¹⁶³ If people do not appreciate the difference between a 1 percent risk and a 0.1 percent risk, they may end up making terrible choices about their treatment.¹⁶⁴

The health care context is particularly ripe for decisional errors for these reasons, but also for the more general ones that decisions can be very complex and novel in the sense that they often do not involve issues that individuals have had to grapple with before,¹⁶⁵ and implicate often competing values in ways that simple decisions like apples versus oranges do not.

Indeed, there is strong evidence that patients *are* frequently choosing badly under the current regime.¹⁶⁶ They choose to have a stent surgically placed rather than making lifestyle changes.¹⁶⁷ They choose to have spinal fusion surgeries when intensive physical therapy would be better.¹⁶⁸ They get radiation for early stage prostate cancer when it does not benefit survival and could have debilitating side effects.¹⁶⁹ The general epidemic of overtreatment in the United States suggests that patients are consenting to tests and procedures that they should not be—that either have no benefit or are “outright harmful.”¹⁷⁰ A recent study of

162. Ellen Peters et al., *Numeracy Skill and the Communication, Comprehension, and Use of Risk-Benefit Information*, 26 HEALTH AFF. 741, 741–48 (2007).

163. *Id.*

164. There is ample (and ongoing) research about *why* individuals are so bad at addressing probabilities and uncertainty. See, e.g., LEONARD MLODINOW, *THE DRUNKARD'S WALK: HOW RANDOMNESS RULES OUR LIVES* 5 (2008) (noting how “[t]he mechanisms by which people analyze situations involving chance are an intricate product of evolutionary factors, brain structure, personal experience, knowledge, and emotion”).

165. The exception is patients dealing with chronic conditions.

166. Undoubtedly, physicians also suffer from decision-making biases that ultimately impact patient decision-making. The proposed solutions set forth in section III.D therefore suggest data-driven decisions not left solely to the discretion of any individual subject to cognitive biases.

167. See, e.g., Lin & Dudley, *supra* note 26, at 1621–22 (discussing the overuse of stents given that they have not been shown to be effective in preventing cardiovascular events for patients with stable angina).

168. See Chou et al., *supra* note 24, 1069–72 (studies show no difference in outcome between spinal fusion and intense rehabilitation); Martin et al., *supra* note 24, at 661. Despite no difference in outcome, spinal fusion surgery means a lengthy and painful recovery.

169. See, e.g., Timothy J. Daskivich et al., *Variation in Treatment Associated with Life Expectancy in a Population-Based Cohort of Men with Early-Stage Prostate Cancer*, 120 CANCER 3642 (2014).

170. See Atul Gawande, *Overkill, an Avalanche of Unnecessary Medical Care Is Harming Patients Physically and Financially. What Can We Do About It?*, NEW YORKER

Medicare claims data found that in a single year, a whopping forty-two percent of Medicare beneficiaries had received care known to provide minimal clinical benefit.¹⁷¹ According to the Institute of Medicine, overtreatment is costing the United States at least \$210 billion per year.¹⁷²

Bad patient choice is not a problem just for the patient, but it also affects the entire health care system. When patients choose costly but ineffective treatments, and insurance companies pay for them,¹⁷³ premiums go up for all insureds (or in the case of government programs, for all beneficiaries). As premiums increase, poorer individuals are priced out of the insurance market. Notably, quality does not improve with these rising costs associated with ineffective procedures. The result is simply higher health care costs for all.

In sum, there is ample reason to doubt that patient choice is equivalent to patient well-being.¹⁷⁴ This is not to suggest that patients are uniformly terrible at rational decision-making. They are not. And there are ways to assist patients in overcoming these biases. In fact, enormous efforts have been made by researchers on judgment and decision-making to develop mechanisms to debias patient decision-making or to explain complex probabilities to them.¹⁷⁵ Nonetheless, it is important to stress the enormous challenge associated with relying on patient autonomy to accurately gauge well-being.

(May 11, 2015), <http://www.newyorker.com/magazine/2015/05/11/overkill-atul-gawande> [<http://perma.cc/QC23-4CKV>]; Tara Parker-Pope, *Overtreatment Is Taking a Harmful Toll*, N.Y. TIMES (Aug. 27, 2012), http://well.blogs.nytimes.com/2012/08/27/overtreatment-is-taking-a-harmful-toll/?_r=0 [<https://perma.cc/X5QN-8PGE>].

171. Aaron L. Schwartz et al., *Measuring Low-Value Care in Medicare*, 174 JAMA INTERNAL MED. 1067, 1067 (2014).

172. See Annie Lowrey, *Study of U.S. Health Care System Finds Both Waste and Opportunity to Improve*, N.Y. TIMES (Sept. 11, 2012), <http://www.nytimes.com/2012/09/12/health/policy/waste-and-promise-seen-in-us-health-care-system.html> [<https://perma.cc/2HJ7-3C2U>]; Eric Felten, *Age of Incentives: Paying Big Bucks for Puny Results*, WALL ST. J. (June 18, 2010) <https://www.wsj.com/articles/SB10001424052748704009804575308710787390320> [<https://perma.cc/RK65-V4MN>].

173. Wendy Netter Epstein, *The Health Insurer Nudge*, 91 S. CAL. L. REV. (forthcoming 2018) (on file with author).

174. Alexander Capron & Donna Spruijt-Metz, *Behavioral Economics in the Physician-Patient Relationship: A Possible Role for Mobile Devices and Small Data*, in NUDGING HEALTH 233, 234 (I. Glenn Cohen, Holly Fernandez Lynch, and Christopher T. Robertson eds., 2016) (noting that patient choice is an unwise doctrinal choice where patients lack stable preferences and cognitive dysfunctions prevent them from “accurately perceiving their true interests and objectives”).

175. Baruch Fischhoff, *Debiasing*, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES 422, 422–44 (Daniel Kahneman et al. eds., 1982); see also Christine Jolls & Cass R. Sunstein, *Debiasing Through Law*, 35 J. LEGAL STUD. 199, 199–241 (2006).

C. *Why Current Doctrine Is Flawed*

Informed consent doctrine may further a patient's right to self-determination. Patient choice does permit patients to make the decisions that control their own lives. Even so, it is imperfect. If decision frames impact a patient's choice, then patients are not making truly autonomous decisions in the sense of effectuating their own preferences. Because some framing is inevitable, it is hard to argue that simply delegating decisions to patients truly means that patients are engaging in pure self-determination absent outside interference.

But more problematic is that patient choice is not a good proxy for patient well-being. With any given medical choice, patients may have a stable, well-defined preference for a particular treatment choice (or outcome). But more often than not, patients are likely to have either no preference at all, or to have a preference that was constructed by the frame in which the option or outcome was presented. Also, patients may have a preference for the treatment option that will increase their well-being, or they may not. Due to heuristics and biases (and sometimes conflicts between outcomes data and well-being data), patients often do *not* have a preference for the treatment that will most positively impact their lives. The following graph illustrates some possibilities:

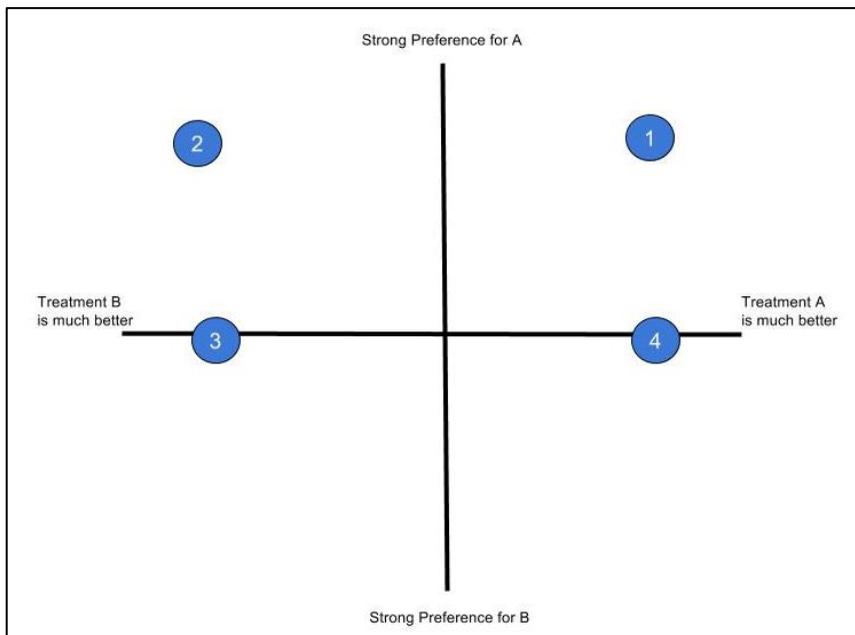


Figure 1: Patient Decision-Making Possibilities

In the upper right-hand quadrant, the patient prefers treatment A and treatment A is also the choice that will make the patient the best off. Particularly at the point marked “1,” current law is not problematic. The same applies equally to the lower left-hand quadrant. If we let the patient choose, the patient will choose that which is actually the best option. That is how informed consent law was designed to work.

But in the upper left-hand quadrant, the patient prefers an option that is not the better option for the patient. This problem is particularly acute at the point marked “2,” where the patient strongly prefers an option that is very much *not* the welfare-maximizing choice.¹⁷⁶ For example, a patient might be deeply opposed to amputation of a limb, and yet such a choice may be the one to most increase the patient’s well-being. Many amputees report substantial hedonic adaptation and are no less happy than they were before.¹⁷⁷ Attempting to save a damaged limb could, however, produce enormous long-term pain and crushing medical bills.¹⁷⁸ Or the patient may prefer the spinal fusion surgery because of a commission bias (perhaps a bias that is shared by the physician), but a physical therapy regime is much more likely to increase the patient’s well-being.

In the face of this conflict—between one choice that is highly likely to maximize well-being and a patient’s strong preference for the choice that will not—it is problematic that current law simply accepts the patient’s choice without considering the implications—for patients and for society—of doing so. What we know about patient decision-making suggests that significant numbers of patients may be at or around point “2.”

Also problematic are points “3” and “4” on the graph, where the patient has no stable, well-defined preference, but data may indicate that one option produces substantially greater patient well-being than the other, whether it is treatment A or treatment B. Patients might find themselves with no strong preference for a number of reasons. Patients might think that both options are equally unattractive. Or, they might

176. A related problem is that the patient and physician may rely on physical outcome data in choosing a treatment option and that data might conflict with well-being data. *See infra* section IV.B for further discussion.

177. *See* Frederick & Loewenstein, *supra* note 145, at 325.

178. Incidentally, this is a situation where outcome data and well-being data may dictate different courses of treatment.

have no real opinions about the options at all and are uninterested in forming them.¹⁷⁹ Finally, patients may have no strong preference because their preferences are unstable and are constructed by decision-making frames. For example, under one frame they prefer treatment A but under another they prefer treatment B.¹⁸⁰ Current law yields undesirable results at points 3 and 4 because it suggests that patients must choose even in the absence of a preference or when their preferences are unstable and even though there is other data that would dictate a particular treatment choice.¹⁸¹

Of course, both the x-axis (patient well-being) and the y-axis (strength of patient preference) reflect spectrums. A patient may have a relatively strong or weak preference for any given treatment and the well-being consequences of a treatment may be strongly implicated (e.g., quite likely to be welfare-maximizing) or weakly implicated (e.g., close call between options).

D. Current Solutions Do Not Effectively Address the Problems

This Article is not the first to acknowledge deficiencies in patient decision-making. The health care field in recent years has tried to address these challenges with a variety of methods intended to make the current autonomy-centric model better. For instance, scholars have suggested ways to improve patients' medical literacy¹⁸² and to train physicians in decision theory to help guide the decision-making process.¹⁸³ Scholars have argued that patients might be able to make better decisions if nurses or social workers presented the options rather

179. BEN-SHAHAR & SCHNEIDER, *supra* note 38, at 62–63 (discussing people being compelled to choose).

180. *See* discussion *supra* notes 95–98.

181. Some may argue that health care decisions are more important or personal in some ways than are other decisions that people make and that law influences. This is certainly true. Nonetheless, the highly emotional and incredibly challenging decisions that people make about healthcare are even more likely to produce biases and errors than are, for example, consumer decisions.

182. Brietta Clark, *Using Law to Fight a Silent Epidemic: The Role of Health Literacy in Health Care Access, Quality, & Cost*, 20 ANNALS HEALTH L. 253, 276–326 (2011); Jessica J. Flinn, *Personalizing Informed Consent: The Challenge of Health Literacy*, 2 ST. LOUIS U. J. HEALTH L. & POL'Y 379, 409–12 (2009).

183. *See, e.g.*, Jon Merz & Baruch Fischhoff, *Informed Consent Does Not Mean Rational Consent: Cognitive Limitations on Decision-Making*, 11 J. LEGAL MED. 321 (1990); Donald A. Redelmeier, Paul Rozin & Daniel Kahneman, *Understanding Patients' Decisions: Cognitive and Emotional Perspectives*, 270 JAMA 72 (1993) (suggesting teaching doctors clinical skills that consider the psychological elements that affect a patient's decision about treatment).

than doctors.¹⁸⁴ And scholars have suggested a variety of ways to debias patient decision-makers, including requiring that physicians use percentages in medical communications rather than probabilities to combat patient innumeracy, among others.¹⁸⁵ Although these methods are well-intentioned and may add some value, they are unlikely to significantly improve patient well-being.

Perhaps the most robust attempts to help patients make decisions that will improve their own welfare have come from the shared decision-making (SDM) movement. This movement simply illustrates that it is both difficult and costly to debias patients and physicians. And if patients do not have stable preferences on which to draw, then debiasing serves no purpose.

SDM is a theoretical model where physicians do not make decisions for patients, and patients are not left to make decisions unaided by physicians.¹⁸⁶ Rather, SDM describes an ideally collaborative process where patients and health care providers make decisions together against a backdrop of the best scientific evidence and the patient's own values and preferences.¹⁸⁷ In practice, patient decision support tools, such as explanatory videos or other decision aids, lay out the risks and benefits of health care decisions for patients in the most objective way possible. The Affordable Care Act urges the adoption of certified decision aids.¹⁸⁸ And states are changing their laws to encourage the use of decision aids.¹⁸⁹

184. Lori B. Andrews, *Informed Consent Statutes and the Decisionmaking Process*, 5 J. LEGAL MED. 163, 204 (1984).

185. *Id.*

186. King & Moulton, *supra* note 30, at 480–91; David I. Shalowitz & Michael S. Wolf, *Shared Decision-Making and the Lower Literate Patient*, 32 J.L. MED. & ETHICS 759, 762 (2004) (“The model of shared decision-making is intended to provide a balanced structure for clinical consultations that both promotes patient autonomy and improves health outcomes.”).

187. A related movement concerns patient engagement, which draws on work showing that patients actively involved in their own health care tend to have better outcomes. For instance, it encourages sharing of medical records with patients and more active education of patients so that they can meaningfully participate in care decisions.

188. Patient Protection and Affordable Care Act, 42 U.S.C. § 3506 (2012) (decision aids for preference sensitive care).

189. See WASH. REV. CODE § 7.70.060 (2012) (Washington law making acknowledgment of use of decision aid prima facie evidence of informed consent); CHOOSING WISELY CAMPAIGN, <http://www.choosingwisely.org/> [<https://perma.cc/A7NZ-GVBE>] (encouraging physicians and doctors to have conversations about the overuse of tests and procedures and supporting doctors' efforts to make patients smart decision-makers).

Scholars have generally lauded SDM on the basis of studies that have found that SDM improves patient comfort with their decisions and may even improve patient health outcomes.¹⁹⁰ One study found that decision aids can help combat the overtreatment problem.¹⁹¹

SDM is an attempt, perhaps a valuable one, at providing more information to help patients make better decisions. To the extent that SDM provides information in a better way or makes people feel more connected to their choices and treatment, it may generate significant deontic autonomy value. Whether it is an efficient means for rooting out decision-making biases that undermine patient welfare, however, is a different issue.

SDM and other decision aids are likely to be most effective when patients' problems are informational, but they only address one of many judgment biases. Helping patients understand numbers and probabilities better is surely laudable and may be possible.¹⁹² Other features of judgment biases, however, are harder to correct.¹⁹³ The effects of the order of options on peoples' choices cannot be eradicated since one option always has to be presented first.¹⁹⁴ Researchers have had very little luck eliminating affective forecasting errors, which loom enormously in the health care context.¹⁹⁵ For example, asking subjects to consider the aspects of their lives that would not change following a disability had no significant effect on their predictions about how they would feel.¹⁹⁶ As two prominent researchers explain, "no one has yet devised a method of making someone who does not have a colostomy

190. Shalowitz & Wolf, *supra* note 186, at 759–62.

191. Dawn Stacey et al., *Decision Aids for People Facing Health Treatment or Screening Decisions*, COCHRANE LIBR. (Apr. 12, 2017), http://www.cochrane.org/CD001431/COMMUN_decision-aids-help-people-who-are-facing-health-treatment-or-screening-decisions [https://perma.cc/LW6U-3HR2] (finding that fully informed patients choose different choices than their physicians).

192. However, debiasing for the overweighting of small probabilities has proven challenging. Jennifer Amsterlaw et al., *Can Avoidance of Complications Lead to Biased Healthcare Decisions?*, 1 JUDGMENT & DECISION MAKING 64, 64 (2006).

193. BEN-SHAHAR & SCHNEIDER, *supra* note 71, at 114 ("However insightful the psychological literature is, it cannot equip lawmakers to mandate or disclosers to design disclosures that will rescue mandated disclosure.").

194. George Loewenstein & Peter A. Ubel, *Hedonic Adaptation and the Role of Decision and Experience Utility in Public Policy*, 92 J. PUB. ECON. (SPECIAL ISSUE: HAPPINESS AND PUB. ECON.) 1795, 1806 (2008) (discussing the challenges of informing and debiasing decision makers).

195. See, e.g., Ubel et al., *supra* note 130, at 191; Wilson & Gilbert, *supra* note 136, at 131.

196. Ubel et al., *supra* note 130, at 115–16. Some subjects gave even worse ratings.

appreciate what it would be like to have one, and especially to imagine having adapted to that colostomy after an extended period of time.”¹⁹⁷

Even where these efforts can be effective, however, efforts to debias can be expensive. They require additional (already scarce) medical resources.¹⁹⁸ And the major premise of decision aids is that they are a neutral account of the risks and benefits of treatment options. As such, they may unintentionally exacerbate problems with the current model in that they leave patients with a lot of information and little actual guidance. Some critics believe that when employed by the government, debiasing efforts undermine the very autonomy that they intend to buttress.¹⁹⁹ And they do nothing to address the fact that many people simply do not wish to make some sorts of choices.²⁰⁰ In a sense, it reduces autonomy to require patients to make decisions that they would rather not make for themselves.²⁰¹ From the perspective of the heuristics and biases literature, trying to get patients to choose more wisely may be a deeply inefficient way to optimize patient welfare.

The problems with debiasing emerge even more strongly when we recognize that patients may rarely have pre-existing stable preferences in the first place.²⁰² The fundamental conceit of the debiasing literature’s approach to informed consent is that proper tools will provide patients the opportunity to express their true preferences about treatment. But if people do not have true preferences, if their preferences are instead constructed in the process of decision-making, then the basic premise of debiasing collapses.²⁰³

197. Loewenstein & Ubel, *supra* note 194, at 1806. *But see* Sammy Almashat et al., *Framing Effect Debiasing in Medical Decision Making*, 71 *PATIENT EDUC. & COUNSELING* 102, 102 (2008) (demonstrating the possibility of diminishing bias and preventing framing effects by listing advantages and disadvantages of treatment options prior to making a choice).

198. BEN-SHAHAR & SCHNEIDER, *supra* note 71, at 116–17 (“[E]xperience with other attempts to encourage rational and careful decisions suggests that even modest results require epic effort, ingenuity, and persistence.”).

199. Jolls & Sunstein, *supra* note 175, at 231–33.

200. BEN-SHAHAR & SCHNEIDER, *supra* note 71, at 62 (“[M]any patients reject the gift of decision.”); *see also* Peter H. Huang, *Happiness Studies and Legal Policy*, 6 *ANN. REV. SOC. SCI.* 405, 422 (2010) (“[P]eople often prefer not to make decisions by procrastinating, leaving decisions to others, making second-order decisions, or avoiding decisions in morally difficult and emotionally charged situations.”).

201. *See* Cass R. Sunstein, *Foreword* to *NUDGING HEALTH*, *supra* note 174, at 12 (Sunstein argues that “often individuals actually prefer not to choose for themselves” and forcing them to choose is a form of paternalism).

202. *Id.* (“People often have malleable notions of what is best for themselves, notions that are often constructed on the fly in a given situation.”).

203. Some proponents of SDM argue that its purpose is, at least in part, to help patients elucidate

This seems particularly likely to be true in the context of medical decision-making. Most people have a very strong preference to avoid pain. Most people also have a very strong preference to avoid death. Most people do not, however, have consistent and stable preferences about the amount and degree of pain that they are willing to endure to avoid death.²⁰⁴ People may have strong desires to treat their diseases, but they also have strong desires to avoid side effects. Again, it is doubtful that most people have well-formed beliefs about the nature of different treatment options and the kinds and degrees of side effects that they cause. The efficacy of SDM in significantly improving patient welfare is questionable.

The next part introduces the literature on choice architecture before Part IV explains the specific reform proposal for health care decision-making.

III. AUTONOMY, WELFARE, AND CHOICE ARCHITECTURE

When the autonomy values and well-being values conflict, one possibility is to prioritize one value and sacrifice the other. When medicine was deeply paternalistic, the system prioritized patient well-being (in an admittedly flawed way) and sacrificed patient autonomy. In the current regime, the system prioritizes patient autonomy (also in a flawed way) and sacrifices patient well-being. Both options create profound normative problems. Libertarian paternalism offers a middle course—a way to promote well-being without sacrificing autonomy—by encouraging people to make choices that are good for them.²⁰⁵

A. *Nudge: Promoting Well-Being with Respect for Autonomy*

“Libertarian paternalism” is a term that was first coined by Richard Thaler and Cass Sunstein to refer to a regulatory system that “steer[s] people’s choices in directions that will improve the choosers’ own

their preferences (not just to deliver information). It may be true that SDM as a method of preference elucidation is helpful for deontic reasons, but I am skeptical that this is so for welfarist reasons. SDM, in theory, would be most helpful where the welfare consequences of a decision do not point clearly to one choice over another and a patient’s preferences provide a reasonable proxy for which choice is better for her.

204. See Paul Dolan & Robert Metcalfe, *Valuing Health: A Brief Report on Subjective Well-Being Versus Preferences*, 32 MED. DECISION MAKING 578, 581 (2012) (noting that preference-elicitation methods will draw attention to particular aspects of a health state and ignore other features of it).

205. See NUDGE, *supra* note 6, at 4–6.

welfare” without choosing for them.²⁰⁶ It responds to problems in the autonomy-centric approach—people make bad decisions—and to a backlash against hard paternalism where the government coerces people to protect them from themselves. Libertarian paternalism envisions a “choice architect” who creates an environment that encourages people to make better decisions.²⁰⁷ The things that a choice architect does to influence people to make good decisions are called a “nudge” because they encourage people to choose in one way but leave open the possibility of making a different choice.²⁰⁸ Examples of nudges range from more prominently displaying the healthy food in a buffet line²⁰⁹ to redesigning a physician’s electronic prescribing pad to make it easier for the physician to prescribe generic medication and more onerous to prescribe a brand name drug²¹⁰ to informing customers about their neighbors’ lower electricity usage to encourage energy conservation.²¹¹ A vast literature has developed in the last two decades that explores nudges that “do not force anyone to do anything and that maintain freedom of choice, but that have the potential to make people healthier, wealthier, and happier.”²¹²

Perhaps the most ubiquitous example of a nudge is changing a default rule.²¹³ A default rule sets the choice for a person who does not choose.²¹⁴ So for instance, assume the default is that people are not organ donors. If they want to become organ donors, they have to opt-in.

206. Cass R. Sunstein & Richard H. Thaler, *Libertarian Paternalism Is Not an Oxymoron*, 70 U. CHI. L. REV. 1159, 1161–62 (2003); *see also* Richard H. Thaler & Cass R. Sunstein, *Libertarian Paternalism*, 93 AM. ECON. REV. 175 (2003) (discussing the ways in which libertarian paternalists might make choices).

207. *See* NUDGE, *supra* note 6, at 3.

208. *Id.* at 4; *see also* NUDGING HEALTH, *supra* note 174.

209. *See, e.g.*, Brian Wansink & Andrew S. Hanks, *Slim by Design: Serving Healthy Foods First in Buffet Line Improves Overall Meal Selection*, 8 PLOS ONE 1 (2013) (finding the order in which food is presented at a buffet triggers different individual choices).

210. *See* Christopher T. Robertson et al., *Introduction* to NUDGING HEALTH, *supra* note 174, at 6.

211. P. Wesley Schultz et al., *The Constructive, Destructive and Reconstructive Power of Social Norms*, 18 PSYCHOL. SCI. 429, 432–33 (2007).

212. CASS R. SUNSTEIN, SIMPLER: THE FUTURE OF GOVERNMENT 9 (2013); *see also* NUDGE, *supra* note 6, at 6–8.

213. There are myriad other examples of nudges that governments (or private actors) might employ to encourage “better” decision-making. *See, e.g.*, WHY NUDGE, *supra* note 121.

214. *See* Willis, *supra* note 8, at 1157 (“Defaults are settings or rules about the way products, policies, or legal relationships function that apply unless users, affected citizens, or parties take action to change them.”); Craig R. M. McKenzie, Michael J. Liersch & Stacey R. Finkelstein, *Recommendations Implicit in Policy Defaults*, 17 PSYCHOL. SCI. 414, 414 (2006).

Although this small effort would not seem to be enough to shift people's behavior about something as important as organ donation, choice of the default often has a profound effect. One study that compared rates of organ donation in opt-in countries with those in opt-out countries found that nearly 60 percentage points separated the two groups (the opt-ins versus the opt-outs).²¹⁵ Changing the default is a nudge in the sense that it is a change that a choice architect makes to encourage organ donation. It does not, however, make the decision for people, who are still free to opt-out of the default.

Default choices are often effective at nudging people toward a particular choice because they are “sticky,” meaning that more consumers will remain in the default position than would do so if active choice were required.²¹⁶ Defaults may be sticky for neoclassical economic reasons—if the imposition of transaction costs for switching deters consumers from opting out of the default²¹⁷—or for behavioral reasons. For instance, the *status quo bias* suggests that people often prefer to keep things the same rather than make active changes.²¹⁸

William Samuelson and Richard Zeckhauser first demonstrated the status quo bias in an experiment comparing decisions subjects made from a neutral condition to those subjects made when one option was designated the status quo.²¹⁹ They found that when an option was presented as the status quo, it received the most selections.²²⁰ In the neutral frame, it received a middle amount of selections.²²¹ And when it was the alternative to the status quo, it received the fewest selections.²²²

215. Eric J. Johnson & Daniel Goldstein, *Do Defaults Save Lives?*, 302 SCI. 1338, 1339 (2003); see also Omri Ben-Shahar & John A. E. Pottow, *On the Stickiness of Default Rules*, 33 FLA. ST. U. L. REV. 651, 655 (2006) (reviewing the literature finding that individuals are biased to “stick” with the status quo).

216. See Lauren E. Willis, *Why Not Privacy by Default?*, 29 BERKELEY TECH. L.J. 61, 61 (2014); see, e.g., Jason Scott Johnston, *Strategic Bargaining and the Economic Theory of Contract Default Rules*, 100 YALE L.J. 615 (1990); Ben-Shahar & Pottow, *supra* note 215.

217. See, e.g., Ariel Porat & Lior Jacob Strahilevitz, *Personalizing Default Rules and Disclosure with Big Data*, 112 MICH. L. REV. 1417, 1422–24 (2014).

218. See generally William Samuelson & Richard Zeckhauser, *Status Quo Bias in Decision Making*, 1 J. RISK & UNCERTAINTY 7 (1988) (discussing a series of decision-making experiments which show that individuals disproportionately stick with the status quo).

219. *Id.* at 8.

220. *Id.*

221. *Id.*

222. *Id.*

There are several reasons that choosers may select the status quo more frequently. There may be an inertia to simply retain the choice that has seemingly already been made. Choosers may perceive the default as being endorsed by authorities, making them more likely to stick with it.²²³ Or because of loss aversion, choosers may weigh potential losses from opting out of the default rule more heavily than potential gains.²²⁴ In general, experiments have found that the bias is heightened the more choices that are presented and the less strongly a person holds a preference.²²⁵ Robust experimental evidence suggests, however, that most default rules are sticky.²²⁶

Despite the promise of libertarian paternalism generally, though, it is not without critics. Although it is certainly less paternalistic than flat out regulation, there is still an element of coercion that many argue is particularly problematic when effectuated by the government.²²⁷ After all, lawmakers and policymakers are making choices intended to influence the decisions that individuals make. If the job of government, as Mill contended, is to prevent harm to others but otherwise to not intervene in an individual's sovereign life,²²⁸ libertarian paternalism fails the test.

In general, though, the paternalism that a nudge requires is mild compared to alternatives, and that paternalism is less objectionable if the

223. See NUDGE, *supra* note 6, at 26.

224. See Stefano DellaVigna, *Psychology and Economics: Evidence from the Field*, 47 J. ECON. LITERATURE 315, 322 (2009) (concluding “the finding of large default effects is one of the most robust results in the applied economics literature of the last ten years”); Daniel Kahneman et al., *Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias*, 5 J. ECON. PERSP. 193, 194–95 (1991); James Powers, *A Status Quo Bias: Behavioral Economics and the Federal Preliminary Injunction Standard*, 92 TEX. L. REV. 1027, 1051 (2014).

225. See Samuelson & Zeckhauser, *supra* note 218, at 8.

226. See, e.g., Russell Korobkin, *The Status Quo Bias and Contract Default Rules*, 83 CORNELL L. REV. 608, 611–12, 637–47 (1998) (compiling results finding that contracting parties prefer default terms and tend not to deviate from the default); Yair Listokin, *What Do Corporate Default Rules and Menus Do? An Empirical Examination*, 6 J. EMPIRICAL LEGAL STUD. 279, 291–92, 305 (2009) (examining the impact of default options on transaction costs in corporate law contexts); Daniel Pichert & Konstantinos V. Katsikopoulos, *Green Defaults: Information Presentation and Pro-Environmental Behaviour*, 28 J. ENVTL. PSYCHOL. 63, 67–69 (2008) (discussing the results of a study offering participants the choice between two suppliers—one default, the other alternative—which showed sixty-eight percent of participants chose the default supplier). For a review of the literature on the stickiness of default rules, see Ben-Shahar & Pottow, *supra* note 215, at 655–60.

227. See, e.g., David Brooks, *The Nudge Debate*, N.Y. TIMES (Aug. 8, 2013), <http://www.nytimes.com/2013/08/09/opinion/brooks-the-nudge-debate.html> [https://perma.cc/7S5K-EDQ8] (summarizing common arguments).

228. See MILL, *supra* note 37, at 80.

nudge is transparent. Also consider that it is difficult, if not impossible, to entirely avoid aspects of paternalism in presenting choices. With most decisions, it is impossible to entirely avoid framing effects. Being more thoughtful about framing a choice to benefit the well-being of the greatest number of people seems less problematic against that backdrop. To be sure, one must be bothered by bad individual decision-making to be willing to tolerate some (even small) sense of government manipulation of choices. But it is hard to imagine many people being happy with a state of the world where people left to their own devices often make choices that make their lives go worse.²²⁹ In general, objections to paternalistic approaches are muted if they “impose small costs, or no material costs, on those who seek to go their own way,”²³⁰ which is the case where opting out is easy to do.

As to default rules specifically, there are also a number of common criticisms. For one, default rules are usually sticky, but there are counter-examples. The default rule upon marriage is that both spouses retain their last names. And yet the vast majority of women nonetheless opt-out of that default and take their husbands’ last names.²³¹

Lauren Willis has described that some defaults can actually be slippery rather than sticky. She suggests that this is particularly so when motivated firms with access to consumers uncertain about their choice take actions to oppose operation of the default.²³² Willis gives the example of bank overdraft fees.²³³ Regulators wanted the default to be overdraft coverage so that consumers would not overdraw their accounts and incur fees. But overdraft fees are quite lucrative for banks, motivating banks to move people out of the default position. There is some evidence that banks were able to effectively influence consumers to opt-out of the overdraft coverage.²³⁴ Perhaps most troubling, opt-out

229. Certainly, opposition to nudges on the basis of coercion exists, but how strongly this view is held seems to be affected by social norms. One major study, for instance, found broad support in six European nations for the majority of nudges tested. See Lucia A. Reisch & Cass R. Sunstein, *Do Europeans Like Nudges?*, 11 JUDGMENT & DECISION MAKING, 310, 310–25 (2016) (finding broad support in six European nations for the majority of nudges tested because “if people believe that a nudge has legitimate goals and think that it fits with the interests or values of most people, they are overwhelmingly likely to favor it”).

230. See WHY NUDGE, *supra* note 121, at 143.

231. Vivia Chen, *Why Not Take the Wife’s Last Name?*, NAT’L L.J., June 3, 2013. Interestingly, no data seems to exist, yet, on trends in last names after same sex marriages.

232. Willis, *supra* note 8, at 1174.

233. *Id.* at 1174–85.

234. *Id.* at 1200.

rates were highest for those most likely to incur overdraft fees.²³⁵ Willis attributes this result to both bank motivation and consumer uncertainty about their choice. She posits that in areas where interests are aligned, like in the retirement savings context where the employer, plan provider, and employee all tend to benefit from greater participation, defaults are more likely to be sticky and effectively nudge behavior to the desired ends.²³⁶ As a result, it is important when attempting to strategically use defaults to consider what might influence consumers to opt out of the default.

Another criticism of nudging through defaults is that a default must be selected for an entire population, and, as a result, is a blunt instrument. In a given population, not everyone's well-being will be maximized by deciding the same way. But the default must nonetheless be the same for everyone.²³⁷ Some have argued that defaults therefore work best in situations where there is a high degree of homogeneity among the actors.²³⁸

Another plausible response, however, is that in the face of heterogeneity, defaults could be personalized. Alexander Capron and Donna Spruijt-Metz discuss how the collection of individualized “small data”—about individuals' habits and activities and statuses—collected by personal devices has the potential to provide what they call “personalized paternalism.”²³⁹

The last common criticism of nudging through defaults is that it can be hard to select the default.²⁴⁰ Policymakers are prone to their own biases and must also consider whether the default should be what is best for the individual or what is best for society.²⁴¹ Nudging through defaults seems to work particularly well where “policy-makers are highly confident about what choices and decisions will maximize the welfare of most actors” and where there are “few negative externalities created by

235. *Id.* at 1184.

236. *Id.* at 1159–60.

237. Porat & Strahilevitz, *supra* note 217, at 1427 (“Default rules are often tailored for different types of transactions or contexts. But as far as we can tell, they are not usually tailored to the personal characteristics of the parties.”).

238. NUDGING HEALTH, *supra* note 174, at 17–18.

239. *Id.* at 241.

240. *See* NUDGE, *supra* note 6.

241. *See infra* section IV.B for a discussion of data available to guide the selection of defaults in health care decision-making.

individual choices.”²⁴² We can also draw comfort, however, from evidence that bad defaults tend not to be sticky—in other words, people *do* opt-out.²⁴³

In general, employing nudges requires careful consideration of these issues. Defaults are better employed in certain contexts than in others. But as the next subpart explores, defaults have been successfully employed to nudge individuals to choices that will increase their well-being in other areas of the law.

B. Other Areas Have Responded to Biased Decision-Making with Nudges (While Health Care Decision-Making Has Not)

A curious feature of health law’s commitment to autonomy as a welfare proxy is the extent to which the commitment is held by scholars who seem to be open to versions of regulation and paternalism (whether hard or soft) in other legal contexts.²⁴⁴ Indeed, many areas of the law have recognized that even with proper disclosures, people do not always make the decisions that would maximize their own utility and have evolved to protect people from making poor decisions. Some laws directly proscribe undesirable choices through regulation and the use of penalties or incentives.²⁴⁵ However, the focus here is on how nudges have been employed to address human error in decision-making.

242. NUDGING HEALTH, *supra* note 174, at 17–18.

243. See generally John Beshears et. al., *The Limitations of Defaults* (NAT’L BUREAU ECON. RES.: RET. RES. CTR., Working Paper No. NB 10-02, 2010), <http://www.nber.org/aging/trc/papers/orrc10-02.pdf> [<http://perma.cc/S7WD-6BL3>].

244. Compare, e.g., Thaddeus Mason Pope, *Clinicians May Not Administer Life-Sustaining Treatment Without Consent: Civil, Criminal, and Disciplinary Sanctions*, 9 J. HEALTH & BIOMEDICAL L. 213, 215 (2013) (lamenting physician failure to follow the “principle of patient autonomy” in administering life sustaining treatment without consent during the past century) with Thaddeus Mason Pope, *Limiting Liberty to Prevent Obesity: Justifiability of Strong Hard Paternalism in Public Health Regulation*, 46 CONN. L. REV. 1859 (2014) (arguing for paternalistic public health regulation). But see Roberts & Leonard, *supra* note 58 (acknowledging that paternalism to promote health and well-being, despite intentionally constraining individual liberty and autonomy, may be desirable); NUDGING HEALTH, *supra* note 174, at 3 (noting that in health law and policy, “[t]he traditional tools have been sticks and carrots—penalties and incentives”).

245. See, e.g., Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (codified as amended in scattered sections of 7, 12, and 15 U.S.C.); Ability-to-Repay and Qualified Mortgage Standards Under the Truth in Lending Act (Regulation Z), 12 C.F.R. § 1026 (2016) (preventing mortgage companies from offering certain subprime mortgages); 820 ILL. COMP. STAT. 105/4(c) (2016) (setting a minimum wage preventing individuals from agreeing to work for less pay); CHICAGO, ILL. MUN. CODE §§ 5-12-170, 5-12-080 (2000) (preventing people from waiving their right to withhold rent if a property violates standards of habitability). Even other areas of health law have more strongly embraced paternalism, although there has now been backlash. As an example, a patient cannot take a drug not yet approved by the

The most prominent example addresses the problem that Americans tend not to save enough money for retirement.²⁴⁶ Most U.S. employers require employees who would like to participate in a 401(k) or other defined contribution retirement plan to opt in.²⁴⁷ If an employee opts in, the employer will automatically transfer a certain percentage of the employee's paycheck each month to the retirement savings plan (and in many cases, the employer will match that contribution). When some employers changed the default and automatically enrolled employees in a plan (but permitted opting out), rates of participation vastly increased. In one study, changing the default to automatic enrollment resulted in nearly twice as many new hires participating as when the default required opting in.²⁴⁸ Similarly, Great Britain changed the default on corporate pension plans to automatically enroll employees while allowing opt-out and has seen positive results.²⁴⁹

Policy defaults have also been employed to encourage individuals with large mortgages to escrow funds for their taxes and insurance²⁵⁰ and to nudge voters to vote by automatically registering citizens to vote but providing information on how to decline voter registration.²⁵¹ In Germany, the government has successfully nudged citizens to use green

FDA. See *Abigail All. for Better Access to Developmental Drugs v. von Eschenbach*, 495 F.3d 695 (D.C. Cir. 2007), *cert. denied*, 552 U.S. 1159 (2008). *But see* RIGHT TO TRY, <http://righttotry.org/> [<https://perma.cc/2Q67-4U9P>].

246. See Paul M. Secunda, *The Behavioral Economic Case for Paternalistic Workplace Retirement Plans*, 91 IND. L.J. 505, 506 (2016) (citing *Personal Saving Rate*, FED. RESERVE BANK ST. LOUIS (Oct. 30, 2015, 7:46 AM), <http://research.stlouisfed.org/fred2/series/PSAVERT> [perma.cc/2CLQ-HU7R]) (“The personal saving rate in the United States in October 2015 was 4.8%.”).

247. See Brigitte C. Madrian & Dennis F. Shea, *The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior*, 116 Q.J. ECON. 1149, 1149 (2001).

248. See William E. Nessmith et al., *Measuring the Effectiveness of Automatic Enrollment*, 31 VANGUARD CTR. FOR RETIREMENT RES. 1, 6 (2007); John Beshears et al., *Public Policy and Saving for Retirement: The Autosave Features of the Pension Protection Act of 2006*, in *BETTER LIVING THROUGH ECONOMICS* 274, 287 (John J. Siegfried ed., 2010) (finding clear evidence that automatic enrollment increased savings and financial well-being); see, e.g., Madrian & Shea, *supra* note 247 (finding that employers' retirement savings plan defaults shape employees' enrollment decisions).

249. See *Nudge Nudge, Think Think*, ECONOMIST (Mar. 24, 2012), <http://www.economist.com/node/21551032> [<https://perma.cc/8BQ4-GN9C>].

250. See *Truth in Lending* (Regulation Z), 12 C.F.R. § 226.35(b)(3) (2016).

251. See 2015 Or. Laws ch. 8 (codified in scattered sections of OR. REV. STAT. §§ 246–247); CASS R. SUNSTEIN, *THE ETHICS OF INFLUENCE: GOVERNMENT IN THE AGE OF BEHAVIORAL SCIENCE* 14 (2016) (discussing Oregon's automatic voter registration system which provides citizens the opportunity to opt out of registration).

energy by automatically enrolling them in the green energy program but permitting opt-out.²⁵²

These are examples of nudges intended to benefit the individual, and in many cases, by extension, to benefit society. Other defaults are strategically designed primarily to benefit society and not the individual. The classic study on changing the organ donation default, discussed earlier, is one such example.²⁵³ There are additional ones, as well. For instance, the Washington State Revenue Code sets as the default that citizens registering their cars automatically donate five dollars to the state's parks, although they have the opportunity to opt out of the donation if they so choose.²⁵⁴

The final Part argues that the health care decision-making context is particularly well-suited to use of a nudge and therefore proposes a new default to promote patient well-being.

IV. A NUDGE TO IMPROVE HEALTH CARE DECISION-MAKING

The dominant view in legal and policy scholarship to date has been that the autonomy and well-being values in health care decision-making are generally aligned because patients will make choices that are in their own self-interest.²⁵⁵ As Part II illustrated, blind faith in this alignment is no longer tenable. Patients may choose what is best for their well-being, but they may not. Implementing a default treatment option, driven by patient outcome and well-being data, would simplify treatment decisions for patients and move more patients toward the choice that would be best for them. Yet the patient would still ultimately be able to make her own treatment choices, hence preserving autonomy. Nudging patients to better decisions²⁵⁶ would benefit not only individual patients but also the almost three trillion dollars health care industry writ large. While there are some challenges in this approach, it is superior to the other options,

252. Pichert & Katsikopoulos, *supra* note 226, at 64.

253. Johnson & Goldstein, *supra* note 215; *see also* Ben-Shahar & Pottow, *supra* note 215.

254. WASH. REV. CODE § 46.16A.090(3) (2017).

255. *See supra* notes 67–72. Note that when they do conflict, current doctrine generally assumes that autonomy must prevail.

256. Of course some physician nudging of patient decision-making already takes place. Many physicians encourage patients, sometimes subtly and sometimes quite directly, to choose the option the physician prefers. In a way, the nudge described in this Part is meant to influence not only the patient, but also the physician, whose current attempts to influence the patient may or may not be in the patient's best interests.

including the primary policy focus in recent years, which has been to try to debias patients through decision aids.

A. *Nudging Patients to Increase Well-Being by Establishing a Default*

If patient choice often does not lead to increased patient well-being, then the question is what the law might do to remedy that problem. More specifically, how should the law react where patients have strong preferences (or doctors have strong preferences), but those preferences will not maximize their well-being, or where patients do not have strong preferences, but we can identify the choice that will maximize their well-being?²⁵⁷ Policymakers should implement a nudge in the form of establishing a treatment default.²⁵⁸ The default addresses the two scenarios that are most problematic for current doctrine.

Currently, informed consent law contemplates that physicians lay out a menu of treatment options for patients, describing the risks involved with each option. But nothing in the law requires that physicians promote any particular option over another.²⁵⁹ Instead, the law should require that a patient be presented the default treatment for their condition, with the default being as personalized as possible given available data.²⁶⁰ The default treatment would be the one that data dictate would be the best for the patient.²⁶¹ The patient would still be provided with other options and would have the opportunity to opt out of the default treatment option if desired. But if the default is sticky—and it likely would be—then establishing the default would move more patients to the decisions that would most likely increase their well-being.

257. See *supra* section II.C. for further discussion.

258. See Scott D. Halpern et al., *Harnessing the Power of Default Options to Improve Health Care*, 357 NEW ENG. J. MED. 1340, 1340–41 (2007) (discussing various kinds of default options in medical practice). Note that a treatment default is not necessarily synonymous with what is often termed “standard of care,” defined according to custom and practice in medical malpractice law. *Infra* section IV.B. discusses further.

259. Indeed, physicians might not even know which option will be most welfare-enhancing, but they should be made to know. See discussion at *infra* section IV.B.

260. As technology advances and more data are collected, these default options could be increasingly catered to the individual’s heterogeneous characteristics. See Cass R. Sunstein, *Deciding by Default*, 162 U. PA. L. REV. 1, 5–6, 48 (2013) (describing how defaults can be personalized just as smartphone data is mined to personalize services); *supra* note 159.

261. See *infra* section IV.B. for a discussion of the relevant data and how it would be used to select the default. Also note that undoubtedly, some doctors are already attempting to nudge patients toward the treatment the doctor prefers. But doctors, too, are subject to biases that can result in their preferred treatment choice not being the best choice for the patient. Requiring that the default be established based on data accordingly has the effect of nudging not just the patient but also the doctor.

In a sense, the default would work as a form of “decision simplification:” a means to “enhance the ability of individuals to make decisions that maximize their own subjective expected utility by combining and presenting information in ways that simplify the relevant choice.”²⁶² A default would reduce costs associated with individuals having to learn about a menu of options and would be particularly useful in health care decision-making contexts that are often unfamiliar and complicated.²⁶³ By presenting a treatment as the default option, the patient is encouraged to select it.²⁶⁴ The strategic presentation of an option as the default is preferable to simply giving patients a list of options established randomly or by convenience, leaving patients without proper tools to make the best decision.²⁶⁵

Returning to the example of the fifty-five-year-old woman with back pain, assume that data suggest that physical therapy is the treatment option that would most increase her well-being and that spinal fusion surgery would be significantly worse for her.²⁶⁶ Under the nudge proposal, the patient would be told by her physician that the default course of treatment is physical therapy. If she consents to be treated, that will be the treatment provided. The patient would be told that there are other options, as well, but they have been shown to be worse for most similarly situated patients.²⁶⁷ Those options include spinal fusion surgery. The patient could choose to opt out of the recommended option and instead receive the spinal fusion surgery. A patient with a strong preference for surgery over physical therapy might do so. But *most* patients would likely accept the recommended (default) option.²⁶⁸

262. See NUDGING HEALTH, *supra* note 174, at 21.

263. See Sunstein, *supra* note 260, at 47.

264. Nudging is a tool that “incline[s] people’s choices in a particular direction.” *Id.* at 5. Here, by presenting a treatment choice as the preferred option, and by requiring a patient who prefers another choice to opt out, patients would be strongly encouraged to make the welfare-maximizing choice. But they would not be forced to do so.

265. Halpern et al., *supra* note 258, at 1342 (“Too often, default options are set on the basis of convenience or natural ordering, rather than by careful consideration of their consequences.”).

266. One clear challenge is in determining what it means to be significantly “worse” from a well-being perspective. See discussion at *infra* section IV.B.

267. Certainly, the data on which the default was selected could be provided to interested patients in the interest of transparency. See *infra* section IV.B. for further discussion of the data.

268. Peter Ubel notes a number of additional psychological benefits that can arise from physician recommendations, including shifting perceptions of what constitutes omission and commission, shifting the locus of decision-making responsibility, and changing perceptions of losses and gains. Peter A. Ubel, “What Should I Do, Doc?” *Some Psychological Benefits of Physician Recommendations*, 162 ARCHIVES INTERNAL MED. 977, 978 (2002).

Indeed, the default is likely to be sticky because it sends a strong signal to patients that policymakers, informed by relevant data, ascribe to the choice selected by the default.

The health care decision-making context is, in many ways, particularly ripe for nudging.²⁶⁹ Patients frequently resist making medical decisions, particularly as they become older and sicker and their decisions become more consequential.²⁷⁰ Also, while the argument has frequently been made that health care decisions only affect the individual, it is simply not the case. The health care system bears the costs of unnecessary medical procedures, and in many cases, the consequences of poor decisions more generally, as does society, which benefits when its citizens are the most productive and the happiest that they can be.²⁷¹

The implementation of a default where there previously was none is somewhat different from changing an opt-in default to an opt-out default as in the case of the organ donation studies.²⁷² Nonetheless, it is a reasonable assumption that presenting the choice in this manner will cause many more patients to obtain the welfare-maximizing treatment than the other option.²⁷³ In a sense, this solution is analogous to other

269. See Thomas L. Greaney, *Economic Regulation of Physicians: A Behavioral Economics Perspective*, 53 ST. LOUIS U. L.J. 1189, 1190 (2009) (“Given the pervasive complexity and ambiguity of medical decisionmaking, it is somewhat surprising that behavioral analysis has not garnered greater attention among scholars or policy makers.”); Jane C. Weeks et al., *Relationship Between Cancer Patients’ Predictions of Prognosis and Their Treatment Preferences*, 279 JAMA 1709, 1712–14 (1998) (describing particular decision-making problems for terminally ill patients).

270. See Ben-Shahar & Schneider, *supra* note 46, at 727–28 (noting that “[w]hen one study asked patients whether they wanted information, their mean score was 80 on a 0–100 scale; when asked if they wanted to make their own decisions, the mean score was 33”); Sunstein, *supra* note 12, at 1–2. Mark White agrees that the unique nature of health care may justify nudges. But he cautions: “given the inherently personal nature of health choices, even greater care should be taken than in cases of ordinary consumer decisions to ensure that patients are as involved in decision-making as possible without having their autonomy compromised by any kind of paternalistic intervention.” NUDGING HEALTH, *supra* note 174, at 73.

271. See Jacob Goldin, *Which Way to Nudge? Uncovering Preferences in the Behavioral Age*, 125 YALE L.J. 226, 232 (2015) (noting that nudges that benefit society are less problematic).

272. Laura Kressel and colleagues show how shifting from opt-in to opt-out defaults can dramatically change people’s choices regarding end-of-life care. Laura M. Kressel et al., *The Influence of Default Options on the Expression of End-of-Life Treatment Preferences in Advance Directives*, 22 J. GEN. INTERNAL MED. 1007, 1009 (2007). Other versions of defaults in medical care include opt-outs for HIV testing or vaccination and defaulting to generic versions of medications unless physicians specify name brand versions. Halpern et al., *supra* note 258, at 1340.

273. Halpern et al., *supra* note 258, at 1341.

laws where the government establishes a default option for the purpose of encouraging individuals to make one choice over another.²⁷⁴

For instance, New Jersey established a default for auto insurance of a “limited tort option.” Insurance carriers in the state must offer motorists, as the default, a policy where the motorist agrees to give up her right to sue for non-economic damages in the event of a car accident.²⁷⁵ Motorists can, by law, opt out of that default and agree to pay a higher premium to retain full future rights to sue (the “unrestricted rights” option).²⁷⁶ Pennsylvania established the exact opposite default scheme.²⁷⁷ The unrestricted rights option is the default there, but motorists can instead opt for the limited tort option. Despite the fact that the rules were opposite, a strong majority accepted the default rule in both states.²⁷⁸ The concept is similar to how the default approach to medical treatment would work. Just as insurers must offer a certain policy default, physicians would be required to offer a certain treatment default.

It seems particularly likely that where the patient herself has no strong preference—one of the areas where current informed consent doctrine is particularly problematic—the default will be sticky.²⁷⁹ There is ample evidence from other contexts that establishing a default is particularly effective at moving choosers to better decisions where the chooser has no strong preference or where the decision is complex.²⁸⁰

The default may be less sticky, however, for the patients with strong preferences for the less welfare-enhancing treatment. In other words, patients with strong preferences for the worse choice may opt out in

274. The suggestion is similar to a proposal to use defaults to encourage patients to choose the cheaper treatment when two options are equally good for them. Elizabeth Bogdan-Lovis & Margaret Holmes-Rovner, *Prudent Evidence-Fettered Shared Decision Making*, 16 J. EVALUATION IN CLINICAL PRAC. 376 (2010). Also related, Alexander Capron and Donna Spruijt-Metz propose that a physician might present a treatment choice as a default, but for the purpose of “reinforc[ing] the patient’s connection with the treatment selected.” See NUDGING HEALTH, *supra* note 174, at 240.

275. See N.J. STAT. ANN. § 39:6A-3.1 (West 2009).

276. The two types of policies are also referred to as the basic option (the default) and the standard option (available by opting out of the default).

277. See 75 PA. CONS. STAT. §§ 1701–1705 (2016) (known as the Act 6 Amendments to the PA Motor Vehicle Financial Responsibility Law (MVFRL)).

278. See Eric J. Johnson et al., *Framing, Probability Distortions, and Insurance Decisions*, in CHOICES, VALUES, AND FRAMES 224, 238 (Daniel Kahneman & Amos Tversky eds., 2000).

279. See, e.g., Sunstein, *supra* note 7, at 5.

280. *Id.*

larger numbers than patients who lack strong preferences.²⁸¹ But even if some percentage of that group could be persuaded to choose the better option because of the portrayal of the better option as the default, it would be an improvement over the status quo. Only a hard paternalistic solution, which would entirely sacrifice self-determination, would be more likely to move this population to the better option. But for the reasons already discussed, hard paternalism seems untenable.²⁸²

Indeed, some will argue that even this soft paternalistic nudge has negative implications for individual liberty. It is undoubtedly true that there is an element of paternalism in nudges. Certainly, however, the default approach is less coercive than regulation would be. A patient can still readily opt out of the choice and choose the treatment option that is more likely to be welfare-reducing.²⁸³ One can imagine legitimate reasons that an individual may prefer an option that is welfare-reducing—perhaps to selflessly improve the welfare of someone else. The sense that patients still have decisional authority might also increase patient well-being if feeling like they have a choice in and of itself makes them happier.²⁸⁴

Another concern is that physicians who do not agree with the default will influence patients to opt out of it. Regarding default rules in general, those with access to and influence over decision-makers and who have incentives to convince the decision-makers to opt out, may have the ability to prompt opt-out.²⁸⁵ For instance, assume that the fifty-five-year-old woman with back pain sees a surgeon who is motivated to increase demand for his surgical services. The surgeon might dutifully communicate that the default treatment is physical therapy but nonetheless try to convince the patient to opt out of that default and choose surgery. The default will not necessarily disabuse physicians of their own cognitive and unconscious biases that might cause their opinion to conflict with the data.²⁸⁶

281. See, e.g., Willis, *supra* note 8, at 1155. This may also be true for patients who are highly influenced by doctors where the doctor has a strong preference for the less welfare-enhancing treatment.

282. See *supra* section I.C.

283. See Halpern et al., *supra* note 258, at 1343 (“Because people frequently lack established preferences regarding their health care choices, those in positions to set default options should use them to achieve legitimate and important health care goals.”).

284. I concede, however, that the mere presentation of a choice as the default will appear to some patients as an infringement on decision-making autonomy.

285. See, e.g., Willis, *supra* note 8, at 1179.

286. In addition to concern about doctors, medical device manufacturers and other interested

On the other hand, there is reason to be hopeful that this effect would be muted. At present, the only legal obligation that doctors have is to offer patients the treatment options that either a “reasonably prudent” doctor practicing in the field would or that a patient would want to know before making the decision.²⁸⁷ And to avoid medical malpractice liability, they must, in general, use minimally sound medical judgment and render minimally competent care.²⁸⁸ While physicians have continuing education requirements and generally must keep up with the standard of care, there is no obligation to know what treatment option will most increase patient well-being. Implementing the envisioned nudge would change this. Physicians would have to be apprised of this information, which in and of itself, is a useful endeavor.²⁸⁹ In other words, the default nudges not only the patient but also the physician.

There is also reason to believe that levels of altruism, despite some heterogeneity, are high in the medical field.²⁹⁰ At base, a physician recommending medical treatment is simply not the same as a bank wanting to increase its profit. Despite heterogeneity, we might assume that *most* doctors will want patients to have the treatment that will be the best for them. Finally, to the extent that doctors are acting in line with financial incentives that might cause conflict between the treatment default and the physician’s interests (e.g., the physician recommending surgery to increase personal compensation when it is not the best option for the patient), programs are already underway to reward providers based on the *quality* of care they provide.²⁹¹ The idea is to counter the current economic incentive that physicians might have to offer expensive, high volume, low-quality care.²⁹²

entities might also market directly to consumers to attempt to move consumers off of the default.

287. See *supra* section I.C.3.

288. See, e.g., *Hall v. Hilburn*, 466 So.2d 856 (Miss. 1985).

289. See Thomas L. Greaney, *Economic Regulation of Physicians: A Behavioral Economics Perspective*, 53 ST. LOUIS U. L.J. 1189, 1197 (2009) (citing studies showing physicians overestimate their own abilities and rely too heavily on habit and individual clinical experience in prescribing practices and choice of services).

290. See Matteo Galizzi et. al, *Provider Altruism in Health Economics*, NAT’L INST. FOR HEALTH & WELFARE (Apr. 2015), [https://www.julkari.fi/bitstream/handle/10024/125787/THL_Discussion_Paper_Altruism_4-2015%20\(2\).pdf?sequence=1](https://www.julkari.fi/bitstream/handle/10024/125787/THL_Discussion_Paper_Altruism_4-2015%20(2).pdf?sequence=1) [<https://perma.cc/2Q67-4U9P>].

291. See Epstein, *supra* note 28, at 4 (discussing move from fee for service to incentive-based compensation for providers in health care).

292. *Id.* (suggesting that incentive-based compensation may be more effective for certain types of health care than others).

Perhaps the biggest challenge, however, is in determining which treatments should have a default, and what the default treatment should be. Just how much better does one option have to be for it to become the default? Which institutions should be responsible for regulating and enforcing defaults—state legislatures, medical associations, or courts? And how specifically can the default be tailored to the individual patient’s characteristics?²⁹³ The next subpart starts the conversation on these difficult questions.

B. *Data to Help Select Defaults*

The default choice must be based on data and selected by an independent entity.²⁹⁴ Medical associations, or perhaps a newly convened regulatory body, are best positioned to utilize the data to make such decisions. These policymakers have two key data sources upon which to draw: health outcome data and hedonic data.

Health outcome data used to be synonymous with morbidity and mortality rates. But there has been a data revolution, and outcome data now spans a vast range of health states. Not only mortality, but also physiologic measures such as blood pressure, laboratory test results such as serum cholesterol or reductions in hemoglobin A1C in diabetic patients,²⁹⁵ and patient-reported health states such as functional status and symptoms may all be used as outcome measures.²⁹⁶

These data are collected in many different ways. Some are collected by clinical trials. Other data is collected by physicians in the course of

293. One argument for active choosing is the heterogeneity of individual preferences. Because the conception of well-being adopted here is not based in preference satisfaction, this concern is not crippling. Heterogeneity of patient characteristics that impact which choice will be welfare-maximizing, however, is important to consider. A world where defaults can be personalized by reference to data is not far off. As Cass Sunstein suggests, “personalized default rules might be thought to produce the best of both worlds. Like impersonal default rules, they reduce the burdens of decision and simplify life. But like active choosing, they promote individualization and increase accuracy by overcoming the many problems associated with one-size-fits-all approaches.” Sunstein, *supra* note 7, at 48.

294. Physicians are subject to their own biases in recommending treatment options, and therefore the choice of default cannot simply be delegated to physicians.

295. Julia James, *Pay-for-Performance*, HEALTH AFF.: HEALTH POLICY BRIEF (Oct. 11, 2012), <http://www.healthaffairs.org/healthpolicybriefs/brief.php> [https://perma.cc/9PR9-Q8KG]; *A1C Test Overview*, MAYO CLINIC, <http://www.mayoclinic.org/tests-procedures/a1c-test/home/ovc-20167930> [https://perma.cc/4G57-2DJX].

296. See *Selecting Health Outcome Measures for Clinical Quality Measurement*, AGENCY FOR HEALTH CARE RESEARCH & QUALITY, <https://www.qualitymeasures.ahrq.gov/help-and-about/quality-measure-tutorials/selecting-outcome-measures> [https://perma.cc/E4F7-6N76].

treatment, becoming a part of a patient's electronic medical record. Much data is also being collected in less traditional ways. For instance, personal devices and internet devices (Fitbit, Patients like me, etc.) are now specifically designed to collect health information. And the growing field of mobile health (mHealth) means that patients are and will increasingly be monitored by mobile sensing technologies.²⁹⁷ All sorts of outcome data are reported to the government, commercial payers, and non-profits like the LeapFrog Group (that collects and reports on quality information nationwide) and the International Consortium for Health Outcomes Measurement (ICHOM) (that works to standardize the measuring and reporting of patient outcomes).

In particular, the last decade has seen significant funding directed to Comparative Effectiveness Research (CER), which the Institute of Medicine defines as "the generation and synthesis of evidence that compares the benefits and harms of alternative methods to prevent, diagnose, treat, and monitor a clinical condition or to improve the delivery of care."²⁹⁸ Indeed, the Affordable Care Act established the Patient-Centered Outcomes Research Institute in 2010 specifically to further this sort of research.²⁹⁹ The goal of funding CER is to obtain better data about the relative effectiveness (with reference to value) of different medical interventions.³⁰⁰ Although there is much work still to be done, this data, and health outcome data in general, can be very useful in helping to direct a treatment default and can often provide clear direction.

But it also does not tell the full story in the sense that it does not instruct whether people's decisions actually increase their well-being. The early twentieth-century behavioral revolution in the social sciences led to an abandonment of attempts to measure internal mental states like happiness or satisfaction, but the emerging field of hedonic psychology has put these issues back on the table.³⁰¹ It has provided valid measures

297. See, e.g., Santosh Kumar et. al, *Mobile Health Technology Evaluation: The mHealth Evidence Workshop*, 45 AM. J. PREVENTIVE MED. 228 (2013) (describing how mHealth technologies have the ability to improve well-being).

298. Harold S. Sox, *Defining Comparative Effectiveness Research: The Importance of Getting It Right*, 48 MED. CARE S7, S7 (2010).

299. 42 U.S.C. § 1320e (2012).

300. See, e.g., Alan M. Garber & Sean R. Tunis, *Does Comparative-Effectiveness Research Threaten Personalized Medicine?*, 360 NEW ENG. J. MED. 1925 (2009) (describing the potential for CER to yield useful information personalized to a patient's situation beyond the data typically obtained from traditional clinical trials).

301. Daniel Kahneman et al., *Preface*, in WELL-BEING: THE FOUNDATIONS OF HEDONIC

of people's well-being, and it has shown that people often make systematic errors in choosing what will make them happy.

The great breakthrough in studying human happiness came from a simple, but important insight into how to measure it. Scientists realized that the best way to know how happy or unhappy someone feels is to ask them.³⁰² People's answers reflect their "subjective well-being" (SWB), or how happy they feel about their own lives.³⁰³

Researchers generally use one of two different sorts of techniques for measuring SWB. The first, known as Experience Sampling Methods (ESM), involve people using smartphones or handheld computers that periodically send them short questionnaires asking them what they are doing and how happy or unhappy they feel on a defined scale.³⁰⁴ The second class of techniques is known as Life Satisfaction (LS) surveys.³⁰⁵ These are typically multi-item questionnaires that ask people, "[a]ll things considered, how satisfied are you with your life these days?" LS surveys are often included as part of a longer survey about respondents' age, health, income, and other demographics.³⁰⁶

The two methods have different strengths and weaknesses. ESM surveys allow researchers to study more fine-grained aspects of people's lives than do longer LS surveys that typically take place only once a year. ESM surveys avoid corruption from the biases associated with people's memories or that occur when people focus on recent or particularly salient events.³⁰⁷ For instance, one concern is that surveys may incorporate a self-justification bias—that is, an individual who is asked how happy he is after having made a decision may justify that decision and believe the decision was more welfare-maximizing than it really was in part because it is the decision he made. Put another way, people may under-report the negative consequences of their own decision because they made the decision that imposed the suffering in

PSYCHOLOGY ix, ix (Daniel Kahneman et al. eds., 1999).

302. Ed Diener, *Subjective Well-Being: The Science of Happiness and a Proposal for a National Index*, 55 AM. PSYCHOL. 34, 34, 40 (2000).

303. *Id.* at 34.

304. *Id.* at 35.

305. William Pavot & Ed Diener, *Review of the Satisfaction with Life Scale*, 5 PSYCHOL. ASSESSMENT 164, 164–65 (1993).

306. Matthew D. Adler, *Happiness Surveys and Public Policy: What's the Use?*, 62 DUKE L.J. 1509, 1512 (2013).

307. Christie N. Scollen et al., *Experience Sampling: Promises and Pitfalls, Strengths and Weaknesses*, 4 J. HAPPINESS STUD. 5, 12 (2003).

the first place.³⁰⁸ This is seemingly a reason to favor moment-by-moment measures of welfare rather than measures that require memory. Self-justification bias is less likely to manifest if we ask how someone feels during the relevant period rather than if we ask him to reflect back after the fact.

On the other hand, though, LS surveys allow researchers to track people over longer periods of time, enabling them to see people enter and exit pertinent life situations like marriage, the death of a loved one, or disability.³⁰⁹

Importantly, despite different methodologies, the results of ESM and LS methods tend to correlate well with one another.³¹⁰ In addition, they demonstrate other important signs of reliability and validity. For example, people's self-reports of their own happiness correlate well with others' judgments of their happiness, with how often they smile, with neurological data associated with pleasure, and with external features of their lives that are typically associated with happiness.³¹¹ These all support the notion that SWB surveys are measuring something real and measuring it fairly well.³¹²

Even if we can expect errors in predicting any one individual's likely happiness by using this data, it can still provide valuable information. It is one thing to know whether patients who receive treatment *A* have higher survival rates than those who receive treatment *B*. Other aspects of those treatments, including pain, recuperation time, and cost, could produce meaningful welfare differences between them. Hedonic psychology can measure these differences. If treatment *A* has a five percent higher survival rate than treatment *B* but leads to substantially greater pain, longer amounts of time out of work, and substantially

308. Those who really value choosing because they hate being told what to do might experience more relative happiness in the short-term that they chose their lot, even if it does not result longer term in the highest possible well-being.

309. Pavot & Diener, *supra* note 305, at 165.

310. See Ed Diener et al., *The Satisfaction with Life Scale*, 49 J. PERSONALITY ASSESSMENT 1 (1985).

311. See Daniel Kahneman & Alan B. Krueger, *Developments in the Measurement of Subjective Well-Being*, 20 J. ECON. PERSP. 3, 11–13 (2006).

312. Although notions of human welfare are hotly debated, almost all accounts of welfare place strong emphasis on people's experience of happiness, satisfaction, or well-being. John Bronsteen, Christopher Buccafusco & Jonathan S. Masur, *Welfare as Happiness*, 98 GEO. L.J. 1583, 1590 (2010).

greater costs to patients, those negative effects can be seen in patients' self-reports about their experiences.³¹³

In many situations, outcome data and hedonic data will be aligned in predictions of which treatment choice will most improve well-being. Where that happens, selecting the default option that both methods agree on does not seem particularly controversial. Indeed, it may be hard to envision why such clear choices are not *already* presented to patients as the default.

But we know they are not always presented as such. For instance, we know that today, many doctors suggest stents even though data suggest the procedure is unlikely to increase well-being.³¹⁴ This is usually not because of some malevolent motive. Rather, it is a function of how the standard of practice evolves in health care—and of how the autonomy and custom and practice-based legal standards work.

Assume a physician is taught one standard treatment option in medical school. Outcome data may, at some later point, suggest that a different treatment is better. But the original treatment that the doctor learned is likely to still be one that most doctors consider acceptable and the one with which a particular doctor may have the most comfort. Under the current regime, physicians must offer a wide range of options (whether the state standard for informed consent is physician-centered or patient-based). They cannot offer procedures that have clearly been proven not to work (e.g., leeches to treat tonsillitis), but as long as treatment options are medically acceptable and meet the minimum standards, these options are presented to patients.

Accordingly, physicians do not necessarily present as the recommended option the one that data suggest to be the best for the patient.³¹⁵ The principle of valuing patient autonomy (and of basing malpractice liability on custom and practice) gets in the way of congruence with the data and hampers suitably rapid change. Implementing the default regime would significantly improve this problem.

313. There is a similar movement underway in personalized medicine, which uses data to tailor treatments (and drugs through pharmacogenomics) based on an individual's genetic profile. See, e.g., W. Nicholson Price II, *Unblocked Future: Why Gene Patents Won't Hinder Whole Genome Sequencing and Personalized Medicine*, 33 *CARDOZO L. REV.* 1601, 1603 (2012). Data on individual differences drives choices in individual treatment. *Id.*

314. See Lin, *supra* note 167, at 1621; Chou et. al, *supra* note 24, at 1070–73.

315. For a discussion on evidence-based medicine, see Epstein, *supra* note 28, at 53–55.

Of course, these examples assume that data prove one treatment option to be “clearly” better than another. In the real world, one of the greatest difficulties will be determining when the data is strong enough to make one option “clearly” better than another. The status quo is tautological because we know the data are strong enough when standard practice changes to accord with that data. But to establish a default, the decision must be based on a review of data and not adoption of the practice.

One answer is that as long as there are some commonly accepted yardsticks by which to measure medical outcomes, and some commonly accepted norms for how much data of certain types constitutes enough to have confidence in a conclusion, then it would be enough to determine when there is “clearly” a best option that should become the default. Many decisions will not be close calls.

For ones that are, though, it is important to acknowledge that hard choices will have to be made. This does not prevent early experimentation with setting defaults when the choice is *not* a close call. Any early attempts to implement a default could focus on the easy cases and not the hard ones—where the difference between two common treatment options is so stark that there is great confidence in choosing one as the default. Ultimately, there will need to be some experimentation with this new regime to test effectiveness. Even if we can identify a smaller number of situations where patients tend to err in decision-making and start by implementing the default regime, there, we could see worthwhile improvements.

In addition to cases where outcome data and hedonic data agree, there are also likely to be cases where hedonic data (but not traditional medical metrics) shows that one procedure is clearly better for most patients, but many patients would nonetheless choose the other procedure. Consider, for instance, what the medical field now calls “preference-sensitive” care. In these cases, health outcomes data cannot distinguish between the choices—for example, watchful waiting versus radiation versus radical prostatectomy for early stage prostate cancer.³¹⁶ But hedonic data might distinguish and might be a better basis on which to determine the default.³¹⁷

316. See Fagerlin et al., *supra* note 156, at 616–19; Laakmann, *supra* note 27, at 923; Wennberg & Peters, *supra* note 27, at 928–29.

317. A similar analysis would apply to cases where the hedonic data and outcomes data clearly conflict.

There are two main objections that scholars may have to the use of hedonic data. The first concerns the reliability of this data, particularly in its application to individual decision-making. Namely, sometimes people overwhelmingly are made happy or unhappy by an activity: driving in traffic is bad, and eating with friends is good. But other times, how an activity affects people's happiness varies. Some people love shopping and hate snorkeling, whereas others hate shopping and love snorkeling. Hedonic averages will not necessarily pick up on these individual differences as to health care choices, whereas patient choice might. For example, if Option *A* is surgery and Option *B* is physical therapy requiring a lot of exercise, and a particular patient hates exercise, then his choice of surgery might reflect what is best for him hedonically more accurately than would a hedonic average that sets the default at Option *B*.

Still, this challenge is not insurmountable. A well-designed well-being analysis should be able to gauge whether the issues in question are more like driving in traffic or more like shopping. And as the analyses become more sophisticated, it should be easier to personalize the results when stable preferences would matter. For instance, a patient could be asked her feelings on exercise and that data could be input to generate the default option based on that patient's preference (if the patient has one). In other words, to set the best possible default requires access to information about what makes a particular individual happiest. In an ideal future world, personalizing defaults with adequate data would be the best possible solution.³¹⁸

But even absent personalization of defaults, in most cases, data about things like adaptation would seem to be as valid and reliable as to any individual as the medical data that are commonly used. And particularly in situations where the medical data cannot help a patient decide, hedonic data are certainly better than nothing. Finally, even if the default as to any individual is wrong, the right to opt out is helpful. Patients could and probably would opt out of the default and make a different choice.

The second potential objection is that individuals may have preferences for treatment that do not turn on their own well-being. Someone might prefer *Y* over *X*, where *X* is better for her well-being, because *Y* is better on other grounds, such as others' well-being, religious values, etc.

318. See NUDGING HEALTH, *supra* note 174, at 241; *supra* note 293.

Again, though, this is why there is a right to opt out. Imagine a Jehovah's Witness who is told she needs a blood transfusion and that the transfusion is the default treatment option for her condition—if she accepts the default, it will likely result in her greatest well-being. The data that generated that default would not have considered that this particular individual would actually experience reduced well-being from having accepted a blood transfusion in violation of the teachings of her religion.

But the Jehovah's Witness patient could simply opt out of the default. Absent perfect information and perfect personalization of the default, there will always be certain individuals for whom the default choice is not “right.” That is the case any time a default is implemented. But it is still legitimate to select the default that should be the best for most people, while permitting any individual to override the choice.

Therefore, despite some challenges, the nudge solution to health care decision-making holds significant promise. The commitment to autonomy in health care decision-making came about, in part, because there were no better options. Paternalism was problematic. And at the time, no systematic way existed to measure internal mental states. The limits of individual rationality were also not well understood. The nudge solution presents an important opportunity to correct some of the enormous problems in patient decision-making identified above and ultimately to address the epidemics of overtreatment and mistreatment in the health care system.³¹⁹

Significant advances in hedonic psychology and in hedonic (and outcomes-based) data collection have been made and will continue to be made in coming years. Most experts expect that these efforts, as they become more sophisticated, will better focus on the individual, particularly in areas where individualized data seems most likely to affect treatment choice. Policymakers and lawmakers should be looking to harness that data to improve health care decision-making. The current network of patients, physicians, and insurance companies has proven unable to control not only the increasing cost of health care but also its ability to actually improve patient and social welfare.³²⁰ Situations such as these are ripe for legal intervention.

319. *See supra* notes 164–69.

320. On the problem of incentives for proper treatment see Epstein, *supra* note 28, at 12.

CONCLUSION

To an enormous extent, the field of health law scholarship is committed to autonomy both in its own right and as a tool for achieving patient well-being. Research on patient decision-making fundamentally undermines the latter, and it has brought the former into starker conflict with actual patient well-being. Providing a default treatment option will nudge many patients toward selecting the choice that will be best for them, while still respecting individual autonomy through a right to opt out.