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# The Costs of Having (Too) Many Choices

## RESHAPING THE DOCTRINE OF INFORMED CONSENT

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### INTRODUCTION

For the last century, tort law has placed liability on physicians for treating patients without their consent.<sup>1</sup> The modern doctrine of informed consent has been around for over fifty years.<sup>2</sup> This doctrine, which was debated vigorously by legal and medical scholars when first introduced,<sup>3</sup> is widely accepted nowadays.

Cases of informed consent can be divided into two main types: lack of consent and insufficient information. The first type

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<sup>1</sup> Case law about informed consent to medical procedures dates back to the late nineteenth century. Most cases recognized a duty to get consent, however, only insofar as informing the patient and getting her to consent to the procedure served a medical purpose. The first major case that found a doctor liable for lack of consent was *Schloendorff v. Soc'y of N.Y. Hosp.*, 211 N.Y. 125, 129 (1914). In *Schloendorff*, and other cases of that period, liability was based on assault, battery, or trespass, and was applied only to cases where doctors performed a procedure without even mentioning it to the patient. See RUTH R. FADEN & TOM L. BEAUCHAMP, A HISTORY AND THEORY OF INFORMED CONSENT 114–23 (1986).

<sup>2</sup> The notion of informed consent was first introduced in *Salgo v. Leland Stanford Jr. Univ. Bd. of Trs.*, 317 P.2d 170, 181 (Cal. Ct. App. 1957) (stating that “[a] physician violates his duty to his patient . . . if he withholds any facts which are necessary to form the basis of an intelligent consent by the patient to the proposed treatment”).

<sup>3</sup> See, e.g., Peter V. Coffey, *Assault on Informed Consent*, 48 N.Y. ST. B.J. 447, 447 (1976) (describing the debate over informed consent at the time the New York legislature added the medical malpractice statute to the state's Public Health Law).

consists of cases wherein a physician performs a medical procedure on the patient without telling the patient about the procedure, and therefore without receiving the patient's consent to such procedure. Under the second type, the physician tells the patient about the medical procedure but does not supply the patient with sufficient information about it. In the latter type of cases, the law finds the patient's consent void, as the patient was not informed of all relevant information. This second type comprises two general categories of insufficient information. The first consists of cases in which the physician did not inform the patient of a possible risk.<sup>4</sup> The second includes cases in which the physician did not inform the patient of an alternative possible treatment to the patient's illness.<sup>5</sup>

These two categories of cases concerning physicians' provision of insufficient information raise distinct questions. The former raises the question of the extent to which physicians are required to inform their patients about the risks of the medical treatment they are performing. The latter raises the question of the extent to which physicians are required to inform patients about all the alternative possible treatments for their condition. The latter category of cases is the subject of this article. Consider the following example:

*Example 1. Alternate procedures.* John is diagnosed with a serious illness for which there are three possible treatments, all of which are likely to cure his disease. Treatment A entails possible complications that put John's arm at risk. Treatment B carries a small risk of neurological harm. Treatment C has side effects, namely nausea and vomiting, but a significantly lower risk of complications than that of Treatments A and B.

Mary, John's physician, informed John of treatments A and B, but did not mention treatment C as a possible alternative. John chose Treatment A, and subsequently, the risk to his arm materialized.

Should Mary be liable for John's harm?

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<sup>4</sup> See, e.g., *Bernard v. Char*, 903 P.2d 676, 683–89 (Haw. Ct. App. 1995) (where the court found the defendant-dentist liable for not informing the plaintiff of the possible risk to the bone that the procedure of tooth extraction entails); *Jackson v. State*, 907 So. 2d 250, 261–62 (La. Ct. App. 2005) (where the court ruled for the plaintiff because the doctor did not inform her that a myomectomy might result in the complete removal of the uterus, and early onset menopause).

<sup>5</sup> See, e.g., *Jandre v. Wis. Injured Patients & Families Comp. Fund*, 813 N.W.2d 627, 653–55 (Wis. 2012) (where the doctor failed to inform his patient of an additional test. The court decided that although the test performed by the doctor was not negligent in and of itself, the doctor breached his duty for not informing the patient of the alternative test). *Accord Keogan v. Holy Fam. Hosp.*, 622 P.2d 1246, 1255 (Wash. 1980) (same); *Martin v. Richards*, 531 N.W.2d 70, 78–81 (Wis. 1995) (same).

Currently, the doctrine of informed consent imposes liability on Mary if the following four conditions are met: (1) Mary possessed information that a reasonable patient would have wanted to know before choosing the treatment (*the standard*); (2) Mary did not reveal this information to the patient (*breach*); (3) the medical procedure resulted in an adverse outcome (*harm*); and (4) it can be preponderantly proven that had Mary revealed the information, John would not have suffered the harm (*factual causation*).<sup>6</sup>

According to prevailing law, to secure informed consent, a physician is required to tell the patient about all the relevant alternative treatments for his or her medical condition, as well as about the major risks and benefits that each alternative treatment entails.<sup>7</sup> The standard of disclosure is objective—the physician is required to inform the patient of all the information that might reasonably influence his or her decision. A physician that fails to fulfill this requirement may be held liable in tort for any physical harm materialized from the treatment. Thus, if John suffered from physical harm as a result of Mary’s breach of duty, she would be liable for John’s harm.

Since the purpose of the doctrine of informed consent is to ensure the patient’s well-being, and since this doctrine requires physicians to disclose all possible alternative treatments to their patient, one can assume that the doctrine is founded on the perception that such disclosure always increases the patient’s well-being.

This article presents the argument that this perception of the patient’s well-being is misguided. Drawing on scholarship in psychology and behavioral economics, we claim that while indeed a patient benefits from choosing a treatment from a variety of possibilities, making this choice also entails costs for her. The decision as to whether a patient should be informed about alternative courses of treatment should take into account both her costs and benefits from knowing about these alternatives.

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<sup>6</sup> See, e.g., WASH. REV. CODE § 7.70.050:

(1) The following shall be necessary elements of proof . . . the alleged breach of the duty to secure an informed consent by a patient . . . against a health care provider: (a) That the health care provider failed to inform the patient of a material fact or facts relating to the treatment; (b) That the patient consented to the treatment without being aware of or fully informed of such material fact or facts; (c) That a reasonably prudent patient under similar circumstances would not have consented to the treatment if informed of such material fact or facts; (d) That the treatment in question proximately caused injury to the patient.

<sup>7</sup> See, e.g., *Jandre*, 813 N.W.2d at 636 (“A ‘physician’s duty to inform is not boundless.’ . . . The physician must disclose only ‘what is material to the patient’s decision, i.e., all of the viable alternatives and risks of the treatment proposed.’” (footnotes omitted)).

Currently, courts seem to consider—at least to some extent—the benefits to the patients and the costs to the physician,<sup>8</sup> while ignoring the costs to the patient. We contend that the doctrine of informed consent should be structured in accordance with not only the benefits but also the costs to the patient.

We identify in this article several ways in which choice making may benefit the patient—some of which are less familiar to lawyers. More importantly, however, we identify various types of costs the patient bears when being forced to choose among alternative treatments.

The most obvious way in which the patient benefits from choosing one treatment from amongst several options is that this choice allows the patient to select the treatment that conforms best to her personal preferences. Thus, if John, in our example, is not afraid of nausea and vomiting, and is more concerned about the risk to his arm from Treatment A, he would have preferred Treatment C to Treatment A. We call this benefit “finding the best alternative.” Furthermore, patients’ active participation in a choice of treatment has well-documented beneficial ramifications on the success of the treatment and their satisfaction with it.<sup>9</sup> Thus, even if John would have chosen Treatment A had he known of Treatment C, he could have still benefited by actively choosing the treatment out of three options instead of two. We call this benefit “sense of control.” Lastly, in some cases, patients can validate their personal beliefs and express themselves to others through the choice of treatment. For example, if a patient’s religious beliefs forbid the use of blood transfers, the patient can express her religious devotion by selecting to decline that treatment. We call this benefit the “expressive function of choice.”

On the other hand, offering all possible alternatives is not cost free for the patient. When choosing a treatment out of several alternatives, a patient endures costs referred to here as the “increased risk of mistake.” These costs manifest the negative effect of making a wrong decision; that is, the loss a patient suffers from choosing a treatment less suited to her set of preferences. Common reasons for making such a mistake include lack of sufficient information regarding the available alternatives and the mental exhaustion resulting from the process of decision making itself. To date, legal scholars have ignored this last cause of

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<sup>8</sup> See, e.g., Alan Meisel, *The “Exceptions” to the Informed Consent Doctrine: Striking a Balance Between Competing Values in Medical Decisionmaking*, 1979 WIS. L. REV. 413, 486–87 (1979).

<sup>9</sup> See *infra* note 63 and accompanying text.

mistakes. Psychological studies have found a connection between the limitations of the patient's mental and emotional resources needed to make a choice and the risk of making a mistake. The more complex a decision, the more resources a patient must invest in making it.<sup>10</sup> At a certain point, the patient might reach the limits of these resources, which may lead her to choose mistakenly the wrong alternative for her. In our example, John might make an error if he lacks the mental resources required to choose. As the number of alternatives offered to John increases, so does the risk that he will ultimately select a treatment that does not ideally coincide with his long-term interests.

Our review of the costs associated with the decision-making process identifies other types of costs as well. First, offering John an additional alternative treatment requires him to acquire information about the additional alternative. We call this cost "acquiring information." This cost might cause John to make a mistake when choosing a treatment but affect him even if there is no risk of mistake. In addition, John might feel regret after making his choice, which constitutes the costs of wondering whether one of the rejected treatments would have worked better.<sup>11</sup> We call the cost of regretting the choice after it was made "experienced regret." Moreover, patients might suffer from regret even before making a choice. We call this cost "anticipated regret." These costs are correlated with the number of alternatives that the patient must choose from. As the number of alternatives grow, so does the costs of anticipated and experienced regret.

We argue that once the law considers not only the benefits but also the costs of choice making, four changes must be made to the current doctrine of informed consent: (1) a change in the physician's duty to disclose; (2) a change in the requirement of causation; (3) a change in the way damages are measured; and (4) a change in the objective nature of the doctrine. We elaborate on these required changes below.

When courts set the *standard of disclosure* for physicians, they currently balance the benefits that patients obtain from having more alternatives to choose from against the costs that the requirement to disclose more alternatives inflicts on *others*; i.e., they only consider the costs that such a requirement may

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<sup>10</sup> The physical effort associated with the process of making a choice is identified here separately as one of the costs generated from the process of decision making. See *infra* notes 100–101 and accompanying text.

<sup>11</sup> We distinguish between what we here term "anticipated regret," referring to the stress a person experiences in response to the possibility that she will regret her choice in the future, and "experienced regret," which denotes a negative feeling a person experiences *after* making her choice, when considering the alternatives she rejected. See *infra* Section II.B.

inflict upon the physicians and the medical system in general.<sup>12</sup> When setting this standard, however, courts overlook the costs that the choice of treatment creates for the patient herself. Accordingly, the first doctrinal change we suggest is that a patient should be informed about an additional alternative treatment for her illness only insofar as this knowledge creates less harm than good. Therefore, when adding the information about an alternative treatment creates higher costs to the patient and to others than benefit to the patient, depriving her of that information should not constitute a wrong in the first place. This change is motivated by the recognition that presenting the patient with additional alternatives creates information costs, increases the risk that she will choose the wrong treatment, and increases her sense of both anticipated and experienced regret. We argue that currently, courts do not consider these costs when setting the standard.

A second change to the doctrine of informed consent regards *factual causation*. Currently, to establish causation, the patient is required to show that had he or she been fully informed, he or she would not have undergone the same procedure, and, as a result, would have avoided some physical harm.<sup>13</sup> We argue, however, that choosing his or her preferred treatment out of a wide variety of alternatives increases the patient's sense of control over her life, which is not only beneficial in itself but also increases the probability that the treatment will succeed.<sup>14</sup> These benefits do not depend on the specific treatment that the patient ultimately chooses. Thus, when the physician violates the standard, the physician should compensate the patient for the loss of those benefits, regardless of whether the patient would have chosen the same treatment anyway, had he or she been informed about the alternatives.

The third change we suggest regards the *estimation of damages*, and it is motivated by the desire to hold the negligent physician accountable only for the harm that he or she created. Currently, once the patient establishes causation between the physician's breach of duty to inform and the patient's physical harm, the physician is liable for the patient's entire physical and

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<sup>12</sup> See, e.g., Mark A. Hall, *A Theory of Economic Informed Consent*, 31 GA. L. REV. 511, 514 (1997) (explaining that as patients do not internalize the full cost of medical care, since most of them have some form of medical insurance, doctors consider the costs of treatments when informing the patients of the potential treatments available).

<sup>13</sup> See *infra* Section I.B.

<sup>14</sup> See *infra* note 63 and accompanying text.

emotional harm.<sup>15</sup> We argue that this practice might overcompensate the patient. Since choice making entails some costs, when the physician informs the patient of fewer alternatives, he or she confers some benefit to that patient. Thus, by making the physician liable for all of the physical and emotional harm, courts currently disregard the benefit that the physician's behavior created for the patient. We argue that the compensation should be adjusted downward to account for this benefit.

The fourth and last change to the doctrine of informed consent regards *the objective nature of the standard*. Currently, the law requires the physician to inform the patient of additional alternative treatments if such knowledge might affect the decision of a reasonable patient.<sup>16</sup> This standard assumes that all patients have the same desire to be informed. The analysis in this article reveals this assumption to be mistaken. John might be more, or less, interested in knowing about every possible procedure than the average or reasonable person. There is no reason to believe that all people are identical in their ability to cope with complex decisions or in their desire to do so. We offer a simple mechanism to accommodate the difference between patients. This mechanism allows patients to determine the level of disclosure they desire. Acceding to our suggestion, the regime of informed consent would require, as a default, an extended duty to disclose information, but the patient would be allowed to opt out of that regime and authorize her physician to limit the number of alternatives that the physician must present to her.

The article proceeds as follows: Part I examines the requirements of the doctrine of informed consent, as courts apply it today. It shows that the doctrine is designed to serve patients, and as such, it is based on the premise that patients are better off when they are able to choose from all the available alternatives. Furthermore, it reveals an inconsistency between the standard of disclosure imposed on physicians by the doctrine of informed consent and the courts' current implementation of the doctrine—specifically regarding the requirement of proof of causation and the measurement of harm to the patient. Part II maps the positive and negative effects on patients choosing between a greater number of alternatives. Applying insights from studies in

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<sup>15</sup> See *Davis v. Hoffman*, 972 F. Supp. 308, 314 (E.D. Pa. 1997) (explaining that a plaintiff may “recover for any mental suffering that results from physical injury, however slight, if the defendant’s negligence caused the physical injury”); *Harbeson v. Parke-Davis, Inc.*, 656 P.2d 483, 494 (Wash. 1983) (determining that parents who have a cause of action for breach of informed consent that resulted in wrongful birth are entitled to damages for pecuniary and emotional injuries); see also *infra* Section I.C.

<sup>16</sup> See *infra* note 28 and accompanying text.

psychology and behavioral economics that focus on the implications of choice making, this Part offers a categorization of the different costs and benefits of actively choosing a treatment, vis-à-vis the patient's well-being. Part III implements the insights offered in Part II and shows four ways in which the doctrine of informed consent should be reshaped. The Conclusion presents the importance of the suggested changes to the doctrine of informed consent and sums up the discussion.

## I. THE CURRENT FEATURES OF INFORMED CONSENT

The doctrine of informed consent requires physicians to tell their patients about the relevant alternative treatments for their medical condition, including the major advantages and risks that each of these alternatives entails.<sup>17</sup> When referring to the motivations behind the doctrine of informed consent, courts often state that a fundamental goal is to protect patients' right to choose what would happen to their body<sup>18</sup> by allowing them to actively participate in choosing the treatment for their ailment.<sup>19</sup>

In this Part, we review the way courts currently apply the doctrine of informed consent. This review uncovers a discrepancy between the doctrinal features of informed consent as currently applied by courts and the interest that this doctrine is presumed to serve according to the same courts. This observation serves as our starting point to develop our main arguments in Parts II and III.

The following sections review the three basic elements of the doctrine of informed consent as currently implemented by the courts. These three elements are the standard of disclosure, the requirement of factual causation, and the current practice of awarding damages.

### A. *The Standard of Disclosure*

The doctrine of informed consent requires physicians to disclose information to their patients about their medical

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<sup>17</sup> See *supra* note 7 and accompanying text.

<sup>18</sup> See, e.g., *Wilkinson v. Vesey*, 295 A.2d 676, 688 (R.I. 1972) (stating that informed consent is based on "the patient's right to be the final judge to do with his body as he will"); *Hannemann v. Boyson*, 698 N.W.2d 714, 727–28 (Wis. 2005) ("[T]he right to informed consent arises not from anything peculiar to the medical profession, but from the 'notion that an adult has a "right to determine what shall be done with his own body.'") (quoting *Schreiber v. Physicians Ins. Co.*, 588 N.W.2d 26, 30 (Wis. 1999)).

<sup>19</sup> See, e.g., *Harbeson v. Parke Davis, Inc.*, 746 F.2d 517, 524 (9th Cir. 1984) ("The doctrine is intended to coexist with medically acceptable treatment forms. It seeks to allow a competent patient to weigh the value of the treatment against the risks posed. . . . The goal is to make the patient an active participant in the decisionmaking process." (citations omitted)).

condition, the alternative treatments for it, and the possible consequences of each of these treatments.<sup>20</sup> Moreover, courts have required physicians who are not certain of their diagnosis to inform their patient of any additional diagnostic tests available,<sup>21</sup> as well as the possible implications that each test might entail for the patient.<sup>22</sup> These requirements of disclosure, however, are not limitless. Conveying all the theoretically available information to each patient is clearly impractical. Physicians must undergo rigorous studying for several years to acquire all the information needed to treat each of their patients.<sup>23</sup> What, then, comprises this “full disclosure” that physicians are required to provide their patients? When should a physician be considered to have supplied enough information to enable her patient to make an informed choice?

Courts often acknowledge that the line between information that should and should not be disclosed is not easily drawn.<sup>24</sup> In the relatively short period since the doctrine was first

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<sup>20</sup> See, e.g., *Canterbury v. Spence*, 464 F.2d 772, 787–88 (D.C. Cir. 1972) (holding that physicians should disclose “the inherent and potential hazards of the proposed treatment, the alternatives to that treatment, if any, and the results likely if the patient remains untreated”); *Hondroulis v. Schuhmacher*, 553 So.2d 398, 411 (La. 1988) (stating that the information that the physician reveals to the patient should include “the nature of the pertinent ailment or condition, the general nature of the proposed treatment or procedure, the risks involved in the proposed treatment or procedure, the prospects of success, the risks of failing to undergo any treatment or procedure at all, and the risks of any alternate methods of treatment”); *Gerety v. Demers*, 589 P.2d 180, 194 (N.M. 1978) (holding that the treating physician must communicate to the patient information concerning “the inherent and potential hazards of the proposed treatment, the alternatives to that treatment, if any, and the results likely if the patient remains untreated”); *Keogan v. Holy Fam. Hosp.*, 622 P.2d 1246, 1253–54 (Wash. 1980) (stating that informed consent is not limited to the administration of treatment, but rather extends to all important decisions that must be made during medical care).

<sup>21</sup> See, e.g., *Jandre v. Wis. Injured Patients & Families Comp. Fund*, 813 N.W.2d 627, 653–55 (Wis. 2012) (holding that, where a doctor failed to inform a patient of an additional test, the doctor breached his duty by not informing the patient of the alternative, even though the act of not performing the additional test was not negligent in and of itself). *Accord Keogan*, 622 P.2d 1246 at 1254; *Martin v. Richards*, 531 N.W.2d 70, 78–79 (Wis. 1995).

<sup>22</sup> See, e.g., *Flyte v. Summit View Clinic*, 333 P.3d 566, 568–69, 576–77 (Wash. Ct. App. 2014) (patient died from swine flu that her physicians misdiagnosed, while offering no diagnosis at the time of discharge. The court held that the physicians had to inform the patient of this possibility. By failing to do so, they breached their duty of informed consent.).

<sup>23</sup> To become a specialist, most physicians must study for four years in a pre-med degree, four years in medical school, and then complete another three to seven years of residency. See ASS’N OF AM. MED. COLLS., POLICY PRIORITIES TO IMPROVE THE NATION’S HEALTH 1–2 (2016) <https://www.aamc.org/download/472838/data/policy-priorities-improve-nations-health.pdf> [<https://perma.cc/AND3-K9VT>]. Obviously, not all the information that the physician gathered in these years is relevant to a specific patient, but even a small fraction of it is too much information. In practice, society encourages professionals in any field to specialize in some subject matter specifically because it is not presumed possible (or even desirable) that everyone knows everything.

<sup>24</sup> *Gerety*, 589 P.2d at 194 (in one of the leading informed consent cases in New Mexico, the state Supreme Court stated that “[t]here is no bright line separating the significant from the insignificant; the answer in any case must abide a rule of reason”).

introduced in 1957,<sup>25</sup> courts have considered several guidelines for its delineation. First, courts have stressed that physicians must disclose all the feasible alternative treatments and medical tests.<sup>26</sup> Second, courts have addressed the content of the information that physicians need to convey regarding each of the alternatives they disclose to their patients. For example, when telling a patient about possible treatments or diagnostic tests, a physician must disclose what each of these treatments or tests is designed to accomplish, as well as the risks and success rates of each.<sup>27</sup>

Notably, however, in most jurisdictions, the information that physicians are required to provide their patient is limited by its relevance to the decision making of a reasonable patient.<sup>28</sup> Accordingly, physicians have no duty to disclose immaterial risks to their patients.<sup>29</sup> The materiality of the risk is determined by objective terms. Such a determination takes into account the probability of the adverse result of each procedure or test, alongside the possible magnitude of its potential harm.<sup>30</sup> Furthermore, physicians are not required to disclose to their patients a risk of treatment if this risk is perceived to be obvious or commonly known.<sup>31</sup> In some states, the legislature sets the

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<sup>25</sup> The California Supreme Court first introduced the modern doctrine of informed consent in 1957, in its decision in *Salgo v. Leland Stanford Jr. Univ. Bd. of Trs.*, 317 P.2d 170, 181 (Cal. Ct. App. 1957). Sixty years have passed since the *Salgo* decision—a short time in terms of common law legal doctrines.

<sup>26</sup> A physician only has a duty to disclose information about medically recognized treatments for the patient's condition. See *LeBlanc v. Islam*, 164 So. 281, 292 (La. Ct. App. 2015) (stating that physicians must only disclose alternative treatments that are accepted as feasible).

<sup>27</sup> See *Shannon v. Fusco*, 89 A.3d 1156, 1169–70 (Md. 2014) (the court held that a physician has a duty to disclose “the nature of the ailment, . . . the probability of success of the contemplated therapy and its alternatives, and the risk of unfortunate consequences associated with such treatment”) (citing *Sard v. Hardy*, 379 A.2d 1014, 1020 (Md. 1977)). See *Accord Hannemann v. Boyson*, 698 N.W.2d 714, 725 (Wis. 2005).

<sup>28</sup> Some jurisdictions refer to the test as the “prudent patient rule,” that is, physicians must disclose risks that might have influenced the decision of a prudent patient. See, e.g., *Jaskoviak v. Gruver*, 638 N.W.2d 1, 7–8 (N.D. 2002).

<sup>29</sup> But see Katherine Shaw & Alex Stein, *Abortion, Informed Consent, and Regulatory Spillover*, 92 IND. L.J. 1, 19–20 (2016) (contending against the regime of informed consent with regards to abortions adopted in several states, according to which, before performing an abortion, physicians are required to inform their patients about remote risks, such as the risk of suffering from post-abortion depression. The writers acknowledge that autonomists might support this regime, as it offers women more information about the procedure without restricting their access to abortion. However, the writers exclaim that this conclusion is wrong since exposing these women to remote risks imposes on them an excessive amount of information, which might mislead them into making the wrong decision for them).

<sup>30</sup> See *id.* at 17–18 (stating that the materiality of the risk is an objective test determined by the likelihood of the potential injury and its severity, should it occur).

<sup>31</sup> See, e.g., *Dills v. N.M. Heart Inst., P.A.*, 367 P.3d 467, 471 (N.M. Ct. App. 2015) (holding that a physician is under no duty to disclose risks that the patient already knew, or risks inherent to the treatment that persons of average sophistication are aware of); *Wheeldon v. Madison*, 374 N.W.2d 367, 371 (S.D. 1985) (stating that there is no duty

definition of an obvious or commonly known risk.<sup>32</sup> This article focuses on the prevailing requirement imposed on physicians to disclose all the relevant alternatives to their patients, rather than on the content of such information.

Under some circumstances, physicians might conclude that the best course of treatment for their patient is simply doing nothing. Indeed, courts acknowledged that in certain instances, lack of treatment can be considered a treatment. Therefore, a physician who believes that the best course of treatment for her patient is to do nothing must disclose this option to her patient as a valid alternative among the potential treatments for her ailment.<sup>33</sup> In other words, at present, physicians must obtain their patients' informed consent even for doing nothing.<sup>34</sup>

The exception to this extensive disclosure requirement is the case in which several physicians are treating the same patient. Generally, courts have accepted that when several physicians treat a patient, only one of them is obligated to obtain her informed consent to the treatment.<sup>35</sup> Hence, a physician who knows that a patient was already informed of her medical condition and its potential treatments by a colleague is not required to provide this patient similar information to obtain informed consent.<sup>36</sup> Similarly, when a family doctor refers her patient to a specialist to perform a certain procedure, the family doctor is not required to obtain the patient's informed consent for this procedure, as this duty falls on the specialist who actually administers the procedure.<sup>37</sup>

to discuss minor risks inherent in common procedures, while "known risk of death or serious bodily harm" should always be disclosed).

<sup>32</sup> See, e.g., N.M. R. ANN., CIV. UNIF. JURY INSTRUCTIONS § 13-1104B (1998) (stating that juries should address risks as known or obvious either when it is evident that the patient already knew the information not disclosed by the physician or when this information is "a matter of common understanding").

<sup>33</sup> See *Gerety v. Demers*, 589 P.2d 180, 192 (N.M. 1978) (treating physician must communicate to the patient the likely results if the patient remains untreated, among other duties).

<sup>34</sup> See, e.g., *Keogan v. Holy Fam. Hosp.*, 622 P.2d 1246, 1255 (Wash. 1980) (stating that "the 'treatment' encompasses all aspects of patient care, including the doctor's resolve to do nothing about medical abnormalities in the patient's condition")

<sup>35</sup> See, e.g., *Stewart-Graves v. Vaughn*, 170 P.3d 1151, 1155-57 (Wash. 2007) (holding that any exception from informed consent requires a medical emergency).

<sup>36</sup> See, e.g., *Dills*, 367 P.3d at 468-71 (holding that once a patient is made aware of all relevant information, a second physician is not obligated to explain all these again. Here, the plaintiff, a heart patient, was examined by a cardiologist, who explained the risks of the recommended procedure, as well as alternative treatments. Later, the patient met with the defendant, a cardiothoracic surgeon, who administered the treatment. The plaintiff told the defendant that she already heard about the risks and gave consent.)

<sup>37</sup> See, e.g., *Logan v. Greenwich Hosp. Ass'n*, 465 A.2d 294, 306 (Conn. 1983) (holding that a referring physician had no obligation to inform a patient of alternative procedures); *Hopkins v. Mills-Kluttz*, 77 S.W.3d 624, 627-28 (Mo. Ct. App. 2002) (stating that "[a] referring physician is not liable for the negligence of the treating physician if the referring

Although courts do not always specify which considerations led them to set the scope of the duty of disclosure to patients, many clearly indicate that protecting patients' right to choose their own course of treatment is one of them.<sup>38</sup> This corresponds with the conventional belief that enabling patients to participate in a decision that might have significant implications for their lives, such as the treatment for their medical condition, serves their best interests.

To conclude thus far: according to prevailing law, physicians are required to disclose to their patients all the possible tests and treatments relevant to their condition. Both legislatures and courts exempt physicians from that duty, however, when the risks associated are perceived as obvious or otherwise previously known to the patient. This exemption lowers the costs that the wide disclosure regime entails for physicians and for the medical system in general.

### B. *Factual Causation*

Imposing liability for breach of informed consent currently hinges upon the result of the but-for test. Thus, to establish his or her claim, a patient must first show that had the physician appropriately disclosed to her the information about alternative treatments for her ailment, he or she would have chosen a different treatment than the one he or she had actually chosen. Furthermore, the plaintiff must also show that had he or she chosen a different treatment, the unfortunate result that occurred would have been prevented.<sup>39</sup> To illustrate the method currently applied by courts when implementing the but-for test, consider the following example.

*Example 2. Factual causation.* Jeremy is diagnosed with a serious heart condition. If it remains untreated, he faces death. There are two possible courses of treatment for Jeremy: A and B. Both are likely to cure him. Treatment A entails a 10% risk of 50 to Jeremy's arm, while Treatment B entails a 10% risk of 100 to Jeremy's leg. Harriet, Jeremy's physician, informs him only of Treatment A. Jeremy agrees

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physician merely referred the patient whereupon the treating physician assumed responsibility, did not participate in the operation, was not alleged to be negligent in his referral, and was not claimed to be engaged in any partnership with the treating physician."); *Koapke v. Herfendel*, 660 N.W.2d 206, 214 (N.D. 2003) (referring dentist had no duty to secure the patient's informed consent, unless he retains control over the patient's treatment).

<sup>38</sup> See *supra* notes 18–19.

<sup>39</sup> See, e.g., *Shabinaw v. Brown*, 963 P.2d 1184, 1189 (Idaho 1998) (indicating that to prove causation, a plaintiff must show both that a reasonable person would have chosen a different course of treatment than the one administered, and that had she chosen the different treatment, the outcome would have been different).

to Treatment A, the risk to his arm materializes, and he suffers a harm of 50.<sup>40</sup>

Should Harriet compensate Jeremy?

In this type of case, common law courts tend to exempt physicians from tort liability due to the lack of factual causation.<sup>41</sup> A court would only impose liability on Harriet if Jeremy could prove that had he been informed of both treatments, he would have chosen the treatment that entails risk to his leg rather than his arm, even though the objective risk to his arm was lower. Jeremy would thus have to prove that although Treatment A exposed him to a risk of 5 (10%\*50) and Treatment B to a risk of 10 (10%\*100), he would still have chosen the latter. Since Jeremy's claim is based on personal preference, which is subjective in nature, this inference is very hard to prove.<sup>42</sup> Accordingly, in Example 2, a court would probably conclude that even if Jeremy had been informed of both Treatment A and B, he would have chosen Treatment A and would have ultimately experienced the same harm. In this case, Harriet's failure to obtain Jeremy's consent would not be considered the cause of Jeremy's harm, and Harriet would be absolved of tort liability.<sup>43</sup>

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<sup>40</sup> An example of such a choice of treatment is a coronary artery bypass grafting procedure, in which a blood vessel is harvested from the arm or leg to graft a cardiac bypass. The choice of blood vessel can influence the long-term success of the treatment, but also creates different complications for patients' limbs. See Charles C. Canver, *Conduit Options in Coronary Artery Bypass*, 108 CHEST 1150, 1150–53 (1995) (analyzing the considerations for the choice of conduit). For possible long-term complications following harvesting of blood vessel from legs, see R. Garland, F.A. Frizelle, B.R. Dobbs & H. Singh, *A Retrospective Audit of Long-Term Lower Limb Complications following Leg Vein Harvesting for Coronary Artery Bypass Grafting*, 23 EURO. J. CARDIO-THORACIC SURGERY 950 (2003); Christian E. Paletta, David B. Huang, Andrew C. Fiore, Marc T. Swartz, Francisco L. Rilloraza & Jan E. Gardner, *Major Leg Wound Complications After Saphenous Vein Harvest for Coronary Revascularization*, 70 ANNALS THORACIC SURGERY 492 (2000). For possible long-term complications from harvesting a blood vessel from the arm, see Alessandro Maria Budillon, Francesco Nicolini, Andrea Agostinelli, Cesare Beghi, Giovanni Pavesi, Claudio Fragnito, Marzio Busi & Tiziano Gherli, *Complications After Radial Artery Harvesting for Coronary Artery Bypass Grafting: Our Experience*, 133 SURGERY 283 (2003).

<sup>41</sup> RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 18 cmt. c. (AM. LAW INST. 2000) (stating the general requirement of causation as a preliminary condition for justifying liability in negligence in "failure-to-warn" cases).

<sup>42</sup> We assume that the scope of the harm is measured objectively, for example by representing the reduction in the range and strength of the limb. People with different occupations or hobbies have different uses for their limbs and can thus ascribe different value to their legs and arms. Jeremy would have to prove that for him, a risk of 5 to his arm is greater than a risk of 10 to his leg in subjective terms.

<sup>43</sup> For the argument that the proof of causation in medical cases of informed consent is almost impossible to establish, see, for example, *Canterbury v. Spence*, 464 F.2d 772, 790 (D.C. Cir. 1972) (noting that finding what the patient would have done had she been informed "hardly represents more than a guess"); see also Aaron D. Twerski & Neil B. Cohen, *Informed Decision Making and the Law of Torts: The Myth of Justiciable Causation*, 1988 U. ILL. L. REV. 607, 609 (1988) (arguing that the difficulties arising from the but-for test in informed consent cases should be countered by focusing on the

Consider now a variation of Example 2: suppose that Harriet administers Treatment A without asking for Jeremy's consent *at all*. In most jurisdictions, this change of detail would have a significant effect on the applied legal regime. Since Jeremy did not give his consent for the treatment, this case would be classified as battery or trespass on a person, rather than as a case of negligence.<sup>44</sup> Accordingly, in most jurisdictions, courts would allow patients to recover a small amount in damages even if they cannot prove that the physician's behavior was the but-for cause of their injury, i.e., regardless of whether they could establish causation.<sup>45</sup> Such rulings leave a patient who was not asked to consent to a treatment in a far better condition than a patient whose physician did not disclose to her the alternative treatments for her ailment, and thus in practicality did not obtain her permission for the treatment either. In the latter cases, classified as falling under negligence law (as illustrated in Example 2), the patient will not be able to recover damages in a claim for breach of informed consent unless he or she can establish causation.

The requirement of factual causation in cases of informed consent is arguably consistent with the notion that tort law aims to protect people's bodily integrity. However, if this doctrine is concerned only with protecting the patient's bodily integrity, why do we need it in the first place? Why should not the law

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plaintiff's loss of value resulting from the withholding of adequate information). Note that had Harriet performed Treatment B, the riskier treatment, instead of Treatment A, Jeremy could easily prove causation. However, as Treatment B is objectively more dangerous than Treatment A, Harriet would have been liable for malpractice, since she performed the objectively riskier treatment.

<sup>44</sup> See, e.g., *Orduno v. Mowry*, 2001 Cal. App. Unpub. LEXIS 1432, at 3–5, 25–26 (Cal. Ct. App. 2001) (holding partially liable a defendant plastic surgeon who used silicon-filled breast implants against the expressed wishes of the plaintiff. Plaintiff later became ill and argued that her illness was caused by the implant. The court denied her damages for the physical harm for lack of causation, but found the defendant liable for the plaintiff's mental suffering, as this case is one of battery and not negligence); *Rolater v. Strain*, 137 P. 96, 97–98 (Okla. 1913) (holding that performing surgery without express consent constitutes trespass on person. This case was decided by the Oklahoma Supreme Court in response to a physician removing a bone from the patient's foot during surgery without the patient's consent.); *Montgomery v. Bazaz-Sehgal*, 798 A.2d 742, 745, 748 (Pa. 2002) (holding that that defendant is liable in battery where defendant implanted an inflatable pump prosthesis in patient's penis without his consent).

<sup>45</sup> See, e.g., *Lloyd v. Kull*, 329 F.2d 168, 169 (7th Cir. 1964) (awarding a patient \$500 for unauthorized removal of a mole, based on battery); *Bailey v. Belinfante*, 218 S.E.2d 289, 290, 292 (Ga. Ct. App. 1975) (finding grounds for a cause of action where the defendant removed an extra sixteen teeth during dental procedure allegedly without the patient's consent. The court of appeals stated that if the jury could have found that the appellant did not consent to the extraction of teeth as a matter of fact, then this procedure "constituted a technical battery."); *Rolater*, 137 P. at 96–97, 100 (affirming a judgment in the amount of a \$1000 for a necessary procedure that was undertaken without the patient's consent).

simply impose liability on physicians for faulty choices of treatments that cause physical harm to their patients, regardless of whether these patients gave their prior informed consent to these treatments? The answer to these questions is clear. The doctrine of informed consent aims to protect patients' right to choose, independent of their right to receive adequate, nonnegligent medical care.<sup>46</sup> Standing on its own, the breach of the patients' right to choose should have separate implications from the physical harm that the breach could have caused to the patient. This latter harm is already covered by the duty of care that physicians hold toward their patients.

As such, the current implementation of the doctrine of informed consent, which hangs on the proof of the existence of physical harm, is misaligned with the standard of disclosure embedded in the doctrine.<sup>47</sup> We attend to the implications of this argument in Part III.

### C. *Assessing Damages*

The third element of the doctrine of informed consent concerns the assessment of damages. When a plaintiff successfully proves that the physician breached the duty to disclose relevant information, and establishes a causal relationship between that breach and his or her subsequent physical harm, courts tend to award compensation to the plaintiff covering the amount of the entire physical harm.<sup>48</sup> Interestingly, in most jurisdictions, courts reduce the amount of compensation according to the harm that would have occurred under the alternative course of treatment. That is, if the defendant can show that he or she has also prevented another harm to the plaintiff by breaching the duty to get informed consent, the assessment of damages would be lessened by the amount of that benefit to the plaintiff.<sup>49</sup>

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<sup>46</sup> See *supra* notes 18–19.

<sup>47</sup> For the general argument that the elements of liability—i.e., the standard of care and causation—should be aligned, see Ariel Porat, *Misalignments in Tort Law*, 121 *YALE L.J.* 82, 84–87 (2011).

<sup>48</sup> See *Fanguy v. Lexington Ins. Co.*, 210 So. 3d 483, 495–97 (La. Ct. App. 2016) (holding that the defendant breached the duty of informed consent when they performed a partial hysterectomy without offering the patient a nonsurgical alternative. The court found the defendant liable for the patient's harm).

<sup>49</sup> See *RESTATEMENT (SECOND) OF TORTS* § 920 cmt. a (AM. LAW INST. 1979) (“The rule stated in this Section normally requires that the damages allowable for an interference with a particular interest be diminished by the amount to which the same interest has been benefited by the defendant’s tortious conduct.”); *id.* § 920 cmt. a, illus. 2 (“A, a surgeon, without B’s consent, operates upon B’s eye, causing B to lose the sight in that eye. In an action of battery, it may be shown in mitigation of damages for the loss of the eye that had A not operated, the sight of the other eye would have been lost.”). *But see* *Warren v. Schecter*, 67 Cal. Rptr. 2d 573, 576–77, 581–82 (Cal. Ct. App. 1997) (holding that the

We contend that, similar to the requirement of factual causation, this prevailing practice of awarding damages in cases of informed consent reaffirms that the interest currently protected by this doctrine is the patient's bodily integrity. Since the doctrine aims to protect the patient's interest in making an informed choice, basing damages solely on physical harm is again inconsistent with this goal. Specifically, this method of assessing damages expresses the net physical harm caused to the patient by the treatment that was administered without obtaining informed consent. Like the requirement of factual causation, this method does not involve any estimation of the harm that the physician caused to the patient by taking the choice of treatment from him or her. As we elaborate in Part III, courts should take into account the harms and benefits resulted to the plaintiff from depriving him or her of the full ability to choose in addition to the net harm to his or her bodily integrity.

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A review of the three basic elements of the current implementation of the doctrine of informed consent reveals that this implementation does not reflect the harm resulting from the patient's loss of choice. We find this inference somewhat surprising considering courts' assertion that a chief goal of this doctrine is to protect patients' right to choose, especially in regard to a matter that might influence their lives tremendously.

The following Part provides the theoretical and doctrinal framework necessary to account for plaintiffs' loss of choice as a specific interest. In particular, it introduces the different sorts of benefits and costs that the process of making choices entails for choice-makers. This mapping of benefits and costs of making choices is crucial for aligning the implementation of the doctrine of informed consent with the chief goal that underlies this doctrine: protecting patients' well-being.

## II. ASSESSING THE COSTS AND BENEFITS OF CHOICE

The previous Part offered a critical review of the current practice of the doctrine of informed consent, while focusing on its three basic elements. Having revealed the problems in the implementation of the doctrine of informed consent, we can take another step forward towards reshaping the doctrine to align it

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plaintiff was entitled to compensation for the entire harm caused by a gastric surgery, which caused her to develop a bone disease but also cured her stomach ulcer, since the defendant who performed the surgery failed to disclose some of the associated risks and therefore did not receive the plaintiff's informed consent).

with its goal of protecting patients' informed choice. This Part takes the additional step needed towards this end, as it identifies the benefits and costs entailed for patients in the process of making choices.

The following sections present the positive and negative effects that patients obtain from the process of choosing—before, during, and after making the choice. We present these positive and negative effects of making choices, *inter alia*, by integrating empirical studies from the fields of behavioral economics and psychology which show that an increase in the number of alternatives to choose from might have both beneficial and detrimental implications on peoples' well-being. This suggested classification provides useful guidance for reshaping the standard of disclosure, so as to reflect a balance between the benefits and costs associated with having more alternatives to choose from, as well as for the assessment of the harm caused to patients when this standard is breached.

#### A. *The Benefits of Choice*

A patient derives many benefits from having more alternative treatments or diagnostic tests to choose from, namely: (1) the benefit gained from vindicating the patient's sense of control by choosing her treatment; (2) the benefit that derives from finding the best alternative treatment for the patient; and (3) the benefit a patient obtains from expressing herself through her choice. When a physician withholds from the patient the relevant information necessary for making an informed choice regarding treatment, this physician deprives the patient of these benefits (in whole or in part).

##### 1. Sense of Control

The ability to choose from a variety of alternatives generates what we term here a "sense of control." This benefit manifests the positive value a person obtains from the experience of influencing the course of one's own life,<sup>50</sup> i.e., the enjoyment a person derives from the exercise of her power to choose about

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<sup>50</sup> This article focuses on the instrumental value of choice rather than on its intrinsic significance. Notably, however, holding a person's right to choose as valuable in and of itself—regardless of any external advantage an individual may derive—can be interpreted as a 'benefit' of choice. As long as the value of this benefit is finite, and can be measured against other benefits and costs, the intrinsic value of the right to choose can be incorporated into our analysis.

himself or herself.<sup>51</sup> The existence of this benefit explains the common presumption that most patients prefer to be offered a range of possible treatments from which to select the treatment most suited to their preferences,<sup>52</sup> rather than have the very same treatment chosen for them.<sup>53</sup> The intuition behind this presumption is that being capable of choosing his or her own medical treatment, in itself, positively influences the patient's well-being, regardless of the specific course of treatment he or she eventually chooses or its outcome.<sup>54</sup> This intuition is supported by recent empirical studies.<sup>55</sup> Particularly illuminating in this respect are studies on terminal patients, conducted in Washington and Oregon, that confirm the significance that experiencing control

<sup>51</sup> Stated otherwise, for every possible outcome people generally prefer a state of the world in which that outcome came about because of their active choice. The difference between a person's overall utility in a world that is generated from others' decisions and the same state of the world when it results from their own active choice is the benefit they derive from the sense of control.

<sup>52</sup> Different treatments may entail different risks of complications, side effects, monetary costs, recovery time, etc.

<sup>53</sup> This reflects an intuition that is shared among moral philosophers about the difference between actual consent and hypothetical consent. Hypothetical consent is described as a situation where a person did not give her explicit consent where such consent was morally needed, but we can assume that a rational and fully informed person would have given his or her consent. For a critical view of hypothetical consent, see David Enoch, *Hypothetical Consent and the Value(s) of Autonomy*, 128 ETHICS 6, 9 (2017) ("Understood in this way, the thought that hypothetical consent can substitute for consent doesn't sound more plausible than the thought that if you're thirsty and there's no water around, it may be good enough that there would have been water, under suitably described hypothetical conditions.").

<sup>54</sup> See generally JAY KATZ, *THE SILENT WORLD OF DOCTOR AND PATIENT* (1984) (wherein Katz argues that patients are not involved enough in their own treatment, mainly due to doctors' misconception regarding what is good for their patients). Following Katz's intuition, other studies have shown that patients who have more control over their treatment are more satisfied with their medical care and show better long-term results from the treatment. See *infra* note 55. But see BARRY SCHWARTZ, *THE PARADOX OF CHOICE: WHY MORE IS LESS*, 30–33 (1st ed. 2004) (arguing that the combination of choice of treatment and the numerous treatment possibilities may result in poor choice of treatment and strong feelings of doubt); CARL E. SCHNEIDER, *THE PRACTICE OF AUTONOMY: PATIENTS, DOCTORS, AND MEDICAL DECISIONS* 32–33 (1998) (arguing that the current debate on patients' autonomy has gone too far because, in practice, patients care less than is commonly believed about being a part of the decision-making process).

<sup>55</sup> For studies that have indicated a strong positive effect of the patient's active participation in the choice of treatment on the outcome of clinical intervention, see *infra* note 63; see also Sheldon Greenfield et al., *Patients' Participation in Medical Care: Effects on Blood Sugar Control and Quality of Life in Diabetes*, 3 J. GEN. INTERNAL MED. 448, 455–56 (1988) (showing positive correlation between patients' involvement in the choice of treatment and both the increase in satisfaction from the treatment and their better long-term results from it); Andreas Loh et al., *The Impact of Patient Participation on Adherence and Clinical Outcome in Primary Care of Depression*, 65 PATIENT EDUC. & COUNSELING 69, 75–76 (2007) (showing similar results, focusing on patients who are being treated for depression); Shaghayegh Vahdat et al., *Patient Involvement in Health Care Decision Making: A Review*, 16 IRAN RED CRES MED. J., 6 (2014) (a meta-study finding that "participation of patients is not merely for consultation, seeking opinions, or use of their actual and potential abilities, but also participation should result in better rehabilitation of patients.").

over one's own life has to that person's well-being.<sup>56</sup> The subjects in these studies were patients who had requested end-of-life treatment from their physicians; i.e., they sought to obtain lethal doses of medication that would assist them to die on their own terms in accordance with their states' Death with Dignity Act.<sup>57</sup> These studies found that the central reason behind this request was patients' fear of losing their ability to make choices regarding their lives in general,<sup>58</sup> and in particular regarding the medical course that would suit their needs and desires when it is time to make such a choice.<sup>59</sup>

The evaluation of sense of control is influenced mainly by two factors: the importance of the decision to the choice maker and the number of alternatives that the choice maker can choose from. Regarding the former aspect, people seek a greater amount of control when the choice to be made relates to a significant aspect of their lives. For example, you may be slightly annoyed if someone orders your meal for you at a restaurant but absolutely outraged if someone decides for you which apartment to buy or whom to marry. The choice of medical treatment is conventionally perceived as significant to patients, and its significance increases along with the potential that the specific choice at hand would greatly affect the patient's life.<sup>60</sup> The effect that the number of alternatives available to choose from has on the patient's sense of control is determined by the patient's belief about what comprises

<sup>56</sup> The mentioned studies were held in the state of Oregon, following the state's Death with Dignity Act (1997), and the state of Washington, following that state's Death with Dignity Act (2009). Both Acts require physicians who prescribe end-of-life treatment to submit a report for each patient that includes both information about the patient's health at the time of the request and the concerns that led the patient to ask for the treatment. The aggregate information about patients' characteristics and concerns is published yearly by each state. See OR. HEALTH AUTH., OREGON DEATH WITH DIGNITY ACT: 2017 DATA SUMMARY 6 (2018); WASH. STATE DEP'T OF HEALTH, WASHINGTON STATE DEATH WITH DIGNITY ACT REP. 1, 8, 12 (2018).

<sup>57</sup> See The Oregon Death with Dignity Act, OR. REV. STAT. ANN. §§ 127.800–97 (West 2018); The Washington Death with Dignity Act, WASH. REV. CODE ANN. §§ 70.245.010–903 (West 2018).

<sup>58</sup> In 2017, 87.4% of the patients in Oregon and 90% of the patients in Washington listed loss of autonomy as one of their end-of-life concerns. See OR. HEALTH AUTH. *supra* note 56, at 6.; WASH. STATE DEP'T OF HEALTH, *supra* note 56, at 1.

<sup>59</sup> Courtney S. Campbell, *Ten Years of "Death with Dignity,"* 22 *NEW ATLANTIS* 33, 44–45 (2008) (arguing that patients gave the words "autonomy" and "choice" the same meaning and that they often thought of 'dignity' in this context as autonomy over the manner and time of death).

<sup>60</sup> However, patients who suffer from chronic, non-life-threatening, diseases might perceive their choice of care as more important, since the disease and its management become part of the patient's identity and status. See, e.g., Cathy Charles, Amiram Gafni & Tim Whelan, *Shared Decision-Making in the Medical Encounter: What Does It Mean? (Or It Takes at Least Two to Tango)*, 44 *SOC. SCI. MED.* 681, 681–82 (1997) (mentioning that starting in the 1970s, there was a shift from acute care of illnesses to chronic management of illnesses, which might explain the importance of shared decision making by patients and their doctors).

a reasonable number of alternatives that should be available to her in order to make the informed choice of treatment for her medical condition.<sup>61</sup> This number may vary in accordance with the patient's awareness of the alternative treatments that other patients in her condition have.<sup>62</sup> Thus, if a patient knows that most patients in his or her condition are usually given three alternative treatments to choose from, and the patient is offered four, he or she may experience a greater sense of control over his or her life, compared to a scenario in which he or she is offered only two alternatives. In the latter case, the patient's sense of control over his or her life may be weakened.

The experience of sense of control is beneficial not only for psychological reasons. The opportunity to be an active participant in the choice of treatment has been well-documented as having long-term effects on the success of medical treatments, in particular when the treatment's success depends on the patient's self-control and involvement in the treatment, as in the case of insulin injections and diet for patients with diabetes.<sup>63</sup>

Lastly, moral philosophy scholarship maintains that choice making has an intrinsic value, as it allows people to exercise their autonomy.<sup>64</sup> Like the sense of control, this value does not depend

<sup>61</sup> JACK W. BREHM, A THEORY OF PSYCHOLOGICAL REACTANCE 118–19 (1st ed. 1966) (arguing that the importance of alternatives, which he calls behavioral freedoms, is determined not only by the absolute number of alternatives that the choice maker attains, but also by the proportion that number represents of alternatives available in general).

<sup>62</sup> In general, the sense of control increases with the number of alternatives. However, the size of the increased benefit from choosing depends on the total number of alternatives. When a person who has only one alternative gets a second alternative to choose from, his or her control over her life increases significantly. The more alternatives a person has, the less that person will gain from each additional alternative.

<sup>63</sup> Several researchers have shown a strong positive effect of the patient's active participation in the choice of treatment on the outcome of clinical intervention. See, e.g., Michael Berger & Ingrid Mühlhauser, *Diabetes Care and Patient-Oriented Outcomes*, 281 J. AM. MED. ASS'N 1676, 1676–77 (1999) (showing in a clinical trial that patient's active participation in choice of treatment is positively correlated with adherence to treatment and improved health outcomes). Accord Michele Heisler et al., *The Relative Importance of Physician Communication, Participatory Decision Making, and Patient Understanding in Diabetes Self-Management*, 17 J. GEN. INTERNAL MED. 243, 250 (2002) (the patient's better adherence and improved outcomes are not a result of an accurate choice of treatment, but rather of self-confidence in their self-care capabilities); Michael L. Parchman, et al., *Participatory Decision Making, Patient Activation, Medication Adherence, and Intermediate Clinical Outcomes in Type 2 Diabetes: A STARNet Study*, 8 ANNALS FAM. MED. 410, 415 (2010); see also *supra* note 54 (we account for this positive aspect of choice as part of the *sense of control*).

<sup>64</sup> This observation adopts an instrumental view of autonomy. Some believe that autonomy is a fundamental good, which cannot be commodified against other goods. We offer a practical answer to this argument: as we have seen, informed consent is already limited by the costs that it creates to the physicians and to the medical system at large. As such, autonomy must be weighed against other costs and benefits. For further reading on the value of autonomy as an independent good, see, e.g., JOSEPH RAZ, *THE MORALITY OF FREEDOM* 424–25 (1986) (viewing autonomy as the ultimate good and choice between meaningful alternatives as a mean to exercise autonomy); see also Enoch, *supra* note 53, at 30–35.

on the alternative that the choice maker ultimately chooses; nor does it depend on the outcome of the choice. Even though the idea of realizing one's autonomy through choices is beyond the scope of this article, it seems that this idea might be incorporated into our analysis, as a benefit of choice making.

## 2. Finding the Best Alternative

Economists maintain that having a range of alternatives is beneficial for choice makers, since it allows them to choose the alternative that is most consistent with their set of preferences, thereby maximizing their welfare.<sup>65</sup> The intuition behind this argument is simple: when rational people are presented with several alternatives and have complete information on each of them, they will select the alternative that they believe will satisfy them the most. As the number of alternatives grows, so are the chances of finding the alternative that best corresponds with their preferences. Therefore, having more alternatives increases the choice maker's expected benefit from the alternative ultimately chosen.

This argument also applies in the medical context. For example, some people are extremely fearful of certain types of risks, while other risks cause less concern. In Example 2,<sup>66</sup> for instance, Treatment A creates a risk of 50 to Jeremy's arm, and Treatment B creates a risk of a 100 to his leg. Although *objectively*, Treatment A is better (as it creates lesser risk), Jeremy might prefer to expose himself to a risk of 100 to his leg than to a risk of 50 to his arm. This may be the case, for instance, if Jeremy dreams to become a pianist in the future, or if his favorite activity is sketching.<sup>67</sup>

The beneficial effect of finding the best alternative continuously increases with every new alternative treatment added to the patient's set of possible treatments (disregarding the information costs and the costs of decision making discussed in the next section) since there is a chance that the patient will prefer the added alternative over the former alternatives. With

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<sup>65</sup> See Lawrence Haworth, *Autonomy and Utility*, 95 *ETHICS* 5, 5–6 (1984) (claiming that most utilitarians value autonomy instrumentally, as a tool for maximizing preferences; but nonetheless suggesting that autonomy has intrinsic value on utilitarian grounds); JOHN STUART MILL, *ON LIBERTY* 122 (David Bromwich & George Kateb eds., Yale Univ. Press 2005) (1869) (“It is desirable, in short, that in things which do not primarily concern others, individuality should assert itself.”).

<sup>66</sup> See *supra* note 40 and accompanying text.

<sup>67</sup> The latter fact might affect Jeremy's awarded amount of compensation under current law. See *Burgett v. Troy-Bilt LLC*, No. 11-110-ART, 2011 WL 4715176, at \*2 (E.D. Ky. Oct. 5, 2011) (stating that a ballerina or a professional athlete would ascribe a higher value to their pinky toe than the average person).

each added alternative, however, the size of this benefit diminishes: the added value from having one more alternative is greatest when you have very few alternatives and decreases as the number of alternatives increases.<sup>68</sup> Moreover, adding more alternative treatments is only beneficial insofar as there is a chance that the patient will choose the added alternative. Thus, if we know with certainty that a patient would value a certain treatment most, we know that the patient will not derive any more benefit from being informed of additional possible treatments.<sup>69</sup> Conversely, when we are uncertain about a patient's preferences, offering more treatments to the patient's array of choices should increase the benefit he or she will ultimately attain from choosing.

Notably, the added value of each additional treatment might drop more steeply if the alternatives are not presented to the patient at random. Take, for example, an internet search engine. When you enter a search query, while there might be a very large set of results, they are not presented randomly, but rather, ordered according to relevance by an automatic algorithm.<sup>70</sup> Knowing that the results are presented in order of relevance, the searcher is enabled to check only the first few options, while remaining fairly certain that the rest of the results are not more relevant.

In practice, physicians act similarly to a search engine; they offer patients first what they believe to be the best alternative, followed by the second-best option, and so forth. We can reasonably assume that patients' preferences are usually aligned with what physicians believe to be the best options for them. If physicians order the alternatives according to the objective risk and benefit that they entail, or according to the

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<sup>68</sup> In economic terms, the marginal utility of each alternative is equal to the probability that it will be chosen times the difference between the utility the choice maker would derive from that alternative and the utility she would derive from her second-best alternative. Assuming that alternatives are presented at random, the probability of choosing a specific alternative out of  $n$  alternatives is  $\frac{1}{n}$ . Since the chance of choosing an additional alternative ( $n + 1$ ) is  $\frac{1}{n+1}$ , the probability of randomly choosing a specific alternative strictly decreases. Furthermore, the marginal benefit from having one more alternative to choose from equals the chances that the new alternative will be chosen times the difference between the expected utility from that alternative and the second-best alternative. Since the utility from the second-best alternative grows as the number of alternatives increases, this difference between utilities decreases. For a detailed explanation of this model, see George J. Stigler, *The Economics of Information*, 69 J. POL. ECON. 213, 214–16 (1961).

<sup>69</sup> Although it might generate other costs and benefits.

<sup>70</sup> In fact, having a good sorting algorithm is what makes one search engine preferable to others. See, e.g., Cédric Argenteon & Jens Prüfer, *Search Engine Competition with Network Externalities*, 8 J. COMPETITION L. & ECON. 73, 75, 77, 97 (2012) (explaining that to attract users, a search engine must succeed in offering them the most relevant results).

popularity of each treatment with previous patients in a similar medical condition, most patients are likely to choose one of the first treatments offered to them.<sup>71</sup> No matter what method physicians use to order treatments, it is clear that alternatives are not presented at random, and thus the chances that the patient would miss the alternative that is best for him or her if he or she is not offered an extra alternative are remote.<sup>72</sup> This might not be the case, however, if the patient has idiosyncratic preferences. In the latter case, the fact that most patients would choose a certain course of treatment would be a weaker indication as to what this specific patient would choose.

### 3. The Expressive Function of Choice

The third and last benefit of choice making we discuss here refers to the positive effects of the expressive function of choices. Choice making consists of two possible expressive functions:<sup>73</sup> First, people generally value the opportunity to express their views to others;<sup>74</sup> and second, people generally make choices that reinforce their sense of self-determination.<sup>75</sup> In this sense, choosing may be perceived as an opportunity for people to

<sup>71</sup> The assumption is that if an alternative is popular within a certain group, other members of that group are likely to choose it in the future. This assumption is quite intuitive and is commonly used to predict an individual's preferences, for example, it is applied by internet search engines. *See id.* at 79. A more sophisticated method would be to personalize the order of the alternatives according to the patient's private preferences; for example, the alternatives could be ordered by their popularity among people who share similar characteristics (e.g., gender, age, etc.) with the particular patient. *See* Ariel Porat & Lior Jacob Strahilevitz, *Personalizing Default Rules and Disclosure with Big Data*, 112 MICH. L. REV. 1417, 1471–76 (2014) (proposing that contract default rules should be personalized according to people's unique preferences. Porat and Strahilevitz's suggestion extends even further than considering age and gender: big data should be used to uncover people's actual preferences, and the default terms of the agreements set accordingly.).

<sup>72</sup> This is only true if we assume that physicians do not make mistakes regarding what is the best (objective) treatment. When physicians recommend a treatment that is ill-suited to the patient's condition, however, they are subject to liability under negligence law, for advising the patient to take the wrong treatment. As negligence law may already assign liability in such a case, we need not consider it when we evaluate the doctrine of informed consent. *See* *Brady v. Urbas*, 111 A.3d 1155, 1164 (Pa. 2015) (holding that when the alleged cause of action is negligence with respect to the physician's recommendation of treatment, evidence that a patient affirmatively consented to treatment are generally irrelevant).

<sup>73</sup> We refer to this benefit as the "expressive value" of a choice, but one can think of it also as the opportunity for "self-determination" through making choices.

<sup>74</sup> Empirical studies support the idea that people derive utility from passing information about themselves to others through making choices. *See infra* notes 75, 77.

<sup>75</sup> For a psychological account of the role of self-determination in decision making, see Alan S. Waterman et al., *Predicting the Subjective Experience of Intrinsic Motivation: The Role of Self-Determination, the Balance of Challenges and Skills, and Self-Realization Values*, 29 PERSONALITY & SOC. PSYCHOL. BULL. 1447, 1453–57 (2003) (showing that self-determination motivates people when making choices).

vindicate the importance of their beliefs to themselves. To illustrate the positive effect of expressiveness to a choice maker, consider the following example:

*Example 3. Religious beliefs.* Sarah, who is extremely religious, consults with Robert, a genetics expert, about the chances that her unborn child would suffer from a genetic disorder. Robert discovers a genetic anomaly in Sarah's blood test, which is likely to manifest as a severe physical disorder. Normally, Robert would offer his patients to abort the pregnancy in these circumstances. Knowing that religious women as Sarah, however, do not usually choose the option of abortion in such cases, Robert decides to tell Sarah about the test results, but he does not inform her of the option of having an abortion as a possible alternative to consider, given the situation.<sup>76</sup>

There is a strong intuition that Robert did something wrong. Moreover, this intuition persists even when assuming that Robert was right, and that indeed, Sarah would not have chosen to abort the pregnancy even had she been informed of the option of doing so. There is a feeling that Sarah lost something as a result of Robert's behavior of not telling her about the alternative of abortion. But what is it that she lost? We suggest that Robert's behavior robbed Sarah of the benefit derived from making the choice not to abort the unborn child, which conforms with her religious beliefs. That is, she was robbed off her opportunity to express to herself, and maybe even to others, that she "did the right thing" (according to her view).

Indeed, the expressive function of choice often pertains to how others perceive us through our choices.<sup>77</sup> Studies have shown that the desire to express oneself might cause people to choose an alternative merely for its expressive function.<sup>78</sup> This tendency implies that having more alternatives to choose from is desirable to some people as it increases their options to use choice as a tool for expressing themselves to others.

Notably, the benefit generated from the expressiveness of choice arises at the stage that the choice is actually made.

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<sup>76</sup> The example is based on an Israeli case. File No. 3198/01, District Court of Civil Appeals (Jer.), Ploni v. City of Jerusalem (May 12, 2008), Nevo Legal Database (by subscription, in Hebrew) (Isr.)

<sup>77</sup> Heejung S. Kim & David K. Sherman, "Express Yourself": Culture and the Effect of Self-Expression on Choice, 92 J. PERSONALITY & SOC. PSYCHOL. 1, 2, 9 (2007) (demonstrating through experiments the effects that expression has on choices).

<sup>78</sup> Studies found that people may select a particular alternative simply for the sake of choosing something different from the rest. Dan Ariely & Jonathan Levav, *Sequential Choice in Group Settings: Taking the Road Less Traveled and Less Enjoyed*, 27 J. CONSUMER RES. 279, 288 (2000) (showing that individuals seek variety when making a decision within groups, and that the variety-seeking tendency is explained by a desire for self-presentation); Heejung S. Kim & Aimee Drolet, *Choice and Self-Expression: A Cultural Analysis of Variety-Seeking*, 85 J. PERSONALITY & SOC. PSYCHOL. 373, 373-75 (2003) (showing that people who value self-expression present a variety-seeking tendency).

Therefore, the expressive value of choice is independent of the ex post outcome of that choice. Accordingly, even if we are certain that if Robert had offered Sarah the alternative of abortion, the outcome of her choice would have been the same, Sarah still lost from being deprived of actually making this choice. She lost the opportunity both to vindicate her beliefs to herself and to express herself to others through making her choice not to abort the unborn child.

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To conclude, patients derive different types of benefits from being offered several alternative treatments to their ailment—it enhances their sense of control over their life, allows them to choose the treatment that confirms best with their desires, and offers them a way to express themselves through the making of that choice.

### *B. The Costs of Choice*

Having outlined the benefits of choosing an alternative out of a growing list of alternatives, we now turn to analyze the costs that such a choice entails; namely, the costs associated with acquiring information about the different alternatives, and thereafter the costs of weighing these alternatives against each other; the cost of the increased probability of making a mistake; the cost of anticipated regret that patients incur when they stress over the possibility that they will regret their choice in the future; and the cost of experienced regret resulting from people's tendency to keep thinking about the repudiated alternatives—and in particular, about the possibility that one of these other options would have made them more satisfied than the selected alternative.

This section outlines these negative effects of making choices and demonstrates their manifestation in the context of informed consent. We find two of the costs to be especially detrimental to patients' well-being: the costs of increased probability of mistake and the costs of regret. We argue that these two types of costs are substantial for patients, since they markedly circumvent the two prominent benefits that patients derive from having more alternatives to choose from. Particularly, the cost of making the wrong choice of treatment manifests a counter effect to the benefit that patients gain from the increase in chances that they would choose the best treatment for themselves.<sup>79</sup> The costs of anticipated regret and experienced regret negate the effect of

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<sup>79</sup> See *infra* Section II.B.4.

choice on the patient's sense of control,<sup>80</sup> as neither the costs nor the benefits depend on the patient's ultimate choice of treatment or its outcome. Even though these costs exist whenever a patient is faced with a choice of treatment, courts have largely looked over them when applying the informed consent doctrine.

We start our analysis of the costs associated with making choices with the added information that the patient needs to acquire for every additional alternative treatment.

### 1. Information Costs

In choosing between several alternatives, rational people will always try to identify the alternative that best accords with their preferences. To do so, they must first gather information about each of the alternatives. This process of collecting the relevant information incurs costs. For the sake of simplicity, we assume that the expected costs of collecting information per one alternative do not vary dramatically with the number of relevant alternatives, so that patients invest a similar amount of resources to gather information regarding a given alternative regardless of whether it is the first alternative presented to them or the last.<sup>81</sup>

As the costs of acquiring information for each alternative treatment are (approximately) fixed, and the benefit the patient entails from additional alternatives steadily decreases,<sup>82</sup> information costs alone would lead a rational patient to prefer that the number of alternatives to choose from be limited.<sup>83</sup> In other words, rational patients may continue looking for a suitable

<sup>80</sup> See *infra* Sections II.B.2, II.B.5 (respectively).

<sup>81</sup> The investment may vary between different alternatives, but since the cost is unknown to the patient *ex ante*, she can only consider the expected cost of information. Note that the information about one of the alternatives may possibly expose some of the information about another. In such situations, the marginal cost of gathering information decreases, and the optimal number of alternatives increases.

<sup>82</sup> The marginal utility from the benefit of choice decreases. This understanding follows the rich literature regarding the economics of information. The general understanding in economics is that a choice maker should invest in gathering information to the point that the marginal investment in gathering information is equal to the marginal expected benefit that the additional information creates. See *supra* notes 61, 68–69 and accompanying text; see also Joseph E. Stiglitz, *The Contributions of the Economics of Information to Twentieth Century Economics*, 115 Q.J. ECON. 1441, 1443 (2000).

<sup>83</sup> Acquiring information about each alternative is not necessarily a binary choice (acquire information or not), but a continuum (invest X in acquiring information). Adding more alternatives might induce the agent to invest less in acquiring information about each alternative and not necessarily reduce the total number of alternatives. However, whenever a person decides to invest less in acquiring information, he or she reduces the chance that the alternative he or she ultimately chooses will be the best option available. We can regard the cost of acquiring information as the optimal cost, given that tradeoff. For further analysis of the risk of making an error due to the costs of information, see *infra* Section II.B.4.

treatment when they are presented with more alternatives to choose from, but since they must acquire information for each new alternative, they will continue to consider additional alternatives only until it ceases to be efficient to do so. At this point, rational patients will simply ignore additional alternative treatments, even if they are presented to them.<sup>84</sup> Consequently, given the assumption of rationality, the costs of information alone would never lead to a net loss (harm) to a rational patient.<sup>85</sup>

The assumption, however, that patients are rational and can accurately decide whether they should consider another treatment does not always hold. People may keep examining new alternatives even when such a practice is too costly for them.<sup>86</sup> Examining more alternatives provides the choice maker with information not only about the particular alternatives being considered, but also about the entire realm of alternatives that should be considered to make an optimal choice. Therefore, choice makers often wonder when they should stop looking for more alternatives and make a choice.

Psychologists have identified choice “satisficing” and “maximizing” as two strategies people generally employ to contend with this question.<sup>87</sup> Under the satisficing strategy, the

<sup>84</sup> When alternatives are presented to the choice maker at random, and sequentially, the person may worry that the next option may be better than all previous ones. In such cases, the cost of acquiring information about new alternatives includes the opportunity cost associated with the time spent waiting for the new alternative to appear. Romantic dating presents such a problem: the agent may be unaware of the quality of potential romantic partners. Dating allows both partners to acquire information about the other and to learn about their own “rank” in the dating world. Every time the agent decides to wait and keep dating instead of settling down with her current partner, however, she has less time to spend with her ultimate choice. For a mathematical proof and further discussion, see generally HANNAH FRY, *THE MATHEMATICS OF LOVE: PATTERNS, PROOFS, AND THE SEARCH FOR THE ULTIMATE EQUATION* (2015).

<sup>85</sup> Interestingly, this analysis may be used to manipulate the alternative that the choice maker eventually chooses, without limiting the number of alternatives from her perspective. This form of manipulation is not necessarily negative. As Thaler and Sunstein show, a benevolent “choice architect” can use this limitation to “nudge” people toward the right decision, without limiting their choice. See RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS* 11–13 (2008). Consider, for example, an internet search engine. By constructing the order in which the results appear before the choice maker, the engine can impact the alternative that people ultimately choose without physically limiting the number of alternatives. See, e.g., Argenton & Prüfer, *supra* note 70, at 82.

<sup>86</sup> See SCHWARTZ, *supra* note 54, at 80–86 (arguing that people may irrationally overinvest in gathering information about additional alternatives out of fear of losing a better option).

<sup>87</sup> See *id.*, at 77–85 (describing these two strategies). Herbert Simon was the first to identify the two strategies. See Herbert Simon, *Rational Choice and the Structure of the Environment*, 63 *PSYCHOL. REV.* 129, 129–30 (1956) (arguing that people, as well as other organisms in nature, often stop looking for more alternatives after identifying an alternative that is “good enough,” thus contradicting the rational choice theory model. Simon named the two models accordingly).

choice maker sets a threshold for each relevant factor and picks the first alternative that meets these thresholds.<sup>88</sup> Satisficing is a rational strategy, as it takes into account the costs of gathering information.<sup>89</sup> Some people, however, apply a choice-maximizing strategy rather than a satisficing one. Choice maximizers gather information about different alternatives until they find the best one, even if the investment in acquiring the information is not expected to yield enough benefit to justify the cost.<sup>90</sup> Offering people with such a tendency too many alternatives can therefore be detrimental to their well-being.<sup>91</sup>

In the medical context, in some situations the number of alternative treatments can be large. To comply with their duty of informed consent, physicians are required to offer their patients information about all the alternative treatments available for their medical condition. Some of these patients are choice maximizers. These patients might invest a lot of time and effort in searching for information about each treatment, even when it becomes too costly for them to do so. In addition, since timing might be a critical factor for the success of any treatment, investing too much time in acquiring information about the different alternative treatments might also negatively affect the patient's chances of recovery.

## 2. The Costs of Anticipated Regret

People tend to agonize over difficult choices and in particular, continue thinking about the alternatives they did not choose, wondering whether one of them would have been a better choice. Accordingly, when facing several appealing alternatives, they often engage in an internal debate (and sometimes an

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<sup>88</sup> Alternatively, a choice maker may assign one threshold for a combination of factors—if the choice maker ascribes a certain value to each factor, a possible satisficing strategy would be to pick the first choice that crosses a certain aggregate score, considering all factors. *See, e.g.*, SCHWARTZ, *supra* note 54, at 78.

<sup>89</sup> *See, e.g.*, SCHWARTZ, *supra* note 54, at 89–90 (arguing that “maximizers” are not really maximizing wellbeing, as they do not factor in “the costs . . . of gathering and assessing information”). *See generally* Herbert Simon, *A Behavioral Model of Rational Choice*, 69 Q.J. ECON. 99 (1955) (arguing that given the costs of acquiring information and possessing it, a satisficing strategy is rational, in the sense that it maximizes the net expected utility from choice and the costs of making it).

<sup>90</sup> We can place satisfiers and choice maximizers at two ends of a scale. Most people employ a combination of both strategies, whilst very few people are at the very end of the scale, for every decision. *See* Barry Schwartz et al., *Maximizing Versus Satisficing: Happiness Is a Matter of Choice*, 83 J. PERSONALITY & SOC. PSYCHOL. 1178, 1181–83 (2002) (showing empirically that people can be placed on a “Maximization Scale” that measures their propensity to adopt a maximizing strategy).

<sup>91</sup> Notably, information costs can vary across individuals. The experience a choice maker has amassed over time could reduce her costs of acquiring information about certain alternatives; moreover, some choice makers may also become more skilled at collecting relevant information.

external dialogue with others) regarding the possibility that an option other than what they ultimately choose will emerge at a later stage as the preferable option for them. Psychologists call this phenomenon “anticipated regret,”<sup>92</sup> referring to the stress a person experiences over the possibility that he or she will regret his or her choice in the future (as opposed to “experienced regret,” which as we later discuss, describes a negative feeling a person experiences *after* making his or her choice, when considering the rejected alternatives).<sup>93</sup>

The magnitude of anticipated regret is a function of the number of alternatives available to choose from. When other factors are neutralized, the more alternatives we have, the more anxious we tend to feel about the choice we are about to make.<sup>94</sup> Psychologists have suggested several explanations for this phenomenon. First, the more alternatives there are to choose from, the greater the probability that one of the rejected alternatives could have been the best choice.<sup>95</sup> Second, choosing from a large set of alternatives forces the choice maker to imagine a large number of counterfactuals and, therefore, more possibilities of later regretting his or her choice.<sup>96</sup> Third, some psychologists have suggested that complex choices force the choice maker to assess and compare several attributes for every alternative. Thus, several alternatives might be found to be better than the others—each on the basis of different attributes. This finding may intensify the choice maker’s anxiety that he or she will regret the choice later

<sup>92</sup> See, e.g., Marcel Zeelenberg, *Anticipated Regret, Expected Feedback and Behavioral Decision Making*, 12 J. BEHAV. DECISION MAKING 93, 94 (1999). People may also experience a contrastive sense of “anticipated elation,” generated from imagining a positive outcome of their choices (such as imagining winning when betting on a horse). See Jeremy J. Sierra & Michael R. Hyman, *In Search of Value: A Model of Wagering Intentions*, 17 J. MARKETING THEORY & PRAC. 235, 240 (2009). However, researchers found that the positive influence of anticipated elation has a very modest effect on people compared to its negative counterpart, anticipated regret. See, e.g., Joop van der Pligt et al., *Affect, Attitudes and Decisions: Let’s Be More Specific*, 8 EUR. REV. SOC. PSYCHOL. 33, 59 (1998).

<sup>93</sup> See *infra* Section II.B.5.

<sup>94</sup> See Christopher J. Anderson, *The Psychology of Doing Nothing: Forms of Decision Avoidance Result from Reason and Emotion*, 129 PSYCHOL. BULL. 139, 140–42, 144–46 (2003) (arguing that the feeling of anticipated regret intensifies with the number of alternatives); Adi Sagi & Nehemia Friedland, *The Cost of Richness: The Effects of the Size and Diversity of Decision Sets on Post-Decision Regret*, 93 J. PERSONALITY & SOC. PSYCHOL. 515, 523 (2007) (discussing the relation between the number of alternatives and the choice maker’s sense of regret).

<sup>95</sup> See Anderson, *supra* note 94, at 144; David E. Bell, *Regret in Decision Making Under Uncertainty*, 30 OPERATIONS RES. 961, 961, 969 (1982) (discussing the correlation between the fear of regret and the increase of uncertainty as the number of alternatives to choose from grows); Janet Landman, *Regret: A Theoretical and Conceptual Analysis*, 17 J. THEORY SOC. BEHAV. 135, 153–54 (1987) (arguing that as the number of alternatives to choose from rises, so does the choice maker’s fear of making the wrong choice).

<sup>96</sup> See, e.g., Landman, *supra* note 95, at 154 (arguing that regret is a result of thinking about “possible selves,” so as the number of possible selves increases so does the feeling of regret).

on.<sup>97</sup> Regardless of the reason or combination of reasons for this effect, we can conclude that a greater number of alternatives to choose from increases the magnitude of anticipated regret, which constitutes a cost for the choice maker.

Notably, the weight of anticipated regret is greater when the choice is more significant to the choice maker, for the fear of choosing the wrong alternative is greater when the ramifications of a wrong choice might be severe. Thus, the effect of anticipated regret might be especially pertinent regarding medical treatments. For example, consider a patient who has a specific type of cancer, and must choose between two alternatives: surgery and chemotherapy treatment. This patient is given the information that the surgery carries a risk of complications and death, while the chemotherapy treatment carries a lower risk of death but causes physical suffering for the duration of the treatment. The mere choice between these two courses of treatments might be agonizing, particularly if the patient fears that he or she might regret the choice later on. This negative feeling is what we describe here as the cost of anticipated regret.

### 3. The Costs of the Decision-Making Process

After acquiring information about the different alternative treatments, the patient reaches the point of having to choose the treatment. At this stage, the patient must weigh all the information and reach a decision. Psychological studies have shown that difficult mental endeavors might be mentally draining for people.<sup>98</sup> Moreover, the process of choosing might require physical effort as well.<sup>99</sup> When required to make a difficult choice, a person's pupils dilate, their heart rate increases, and their blood-sugar level drops.<sup>100</sup> Hence, making choices can be mentally and

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<sup>97</sup> SCHWARTZ, *supra* note 54, at 152–54 (arguing that the feeling of regret is created by “counterfactual thinking”; therefore, anticipated regret worsens as the number of possible counterfactuals it entails increases).

<sup>98</sup> Evidently, people might reach the point of exhaustion after taxing mental endeavors, such as solving difficult mathematical problems. See Roy F. Baumeister et al., *Ego Depletion: Is the Active Self a Limited Resource?*, 74 J. PERSONALITY & SOC. PSYCHOL. 1252, 1252, 1263–64 (1998) (proving that resisting temptation, making a responsible choice, and solving difficult problems all draw from a shared resource pool, wherefore choice makers are easily tempted and have a tendency to become more passive).

<sup>99</sup> See, e.g., DANIEL KAHNEMAN, ATTENTION AND EFFORT 4–16 (1973) (stating that mental processes entail effort and suggesting several factors that influence the amount of effort needed).

<sup>100</sup> The physical effects of mental tasks have been thoroughly documented. See, e.g., Daniel Kahneman et al., *Pupillary, Heart Rate, and Skin Resistance Changes During a Mental Task*, 79 J. EXPERIMENTAL PSYCHOL. 164, 164–66 (1969) (indicating several physical effects of mental effort and showing that these effects increase with effort); L.J.M. Mulder et al., *Respiratory Pattern, Invested Effort, and Variability in*

physically taxing, and the more complex a decision, the more resources the patient must invest to make it.<sup>101</sup> A patient facing a decision about a medical treatment—a decision that might have considerable implications for his or her life—may thus experience significant mental (and even physical) negative effects.

#### 4. Increased Probability of Mistake

As explained above, one of the benefits of having more alternatives to choose from imputes to the increased chance that patients would be offered the best alternative treatment for them.<sup>102</sup> This benefit depends on the patient making the right choice. In practice, however, patients might choose a treatment that is less suited to their set of preferences in comparison to the other alternatives considered; i.e., they may make a mistake. There are two main reasons for this mistake: first, patients might have insufficient information regarding all the available alternative treatments; and second, patients might have insufficient mental or emotional resources to make the decision.

Regarding the former cause for mistake, when a patient is gathering information about alternative treatments, he or she may at some point stop exploring additional options because the information-gathering costs have become too high relative to the benefit derived from considering additional treatments. Since there is a chance, however, that one of the unexplored alternatives would comprise the optimal treatment, the cost of collecting information creates a risk of making a mistake. Moreover, when patients face a significant number of treatments to choose from, especially if they have limited time to make their choice, they might (very reasonably) gather less information regarding each treatment. If patients acquire limited information concerning the available alternatives, they must base their decision on incomplete information. Such a situation can lead patients to err and choose an alternative that they would not have opted for had they been in possession of complete information.

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*Heart Rate and Blood Pressure During the Performance of Mental Tasks*, in *COMPUTER ANALYSIS OF CARDIOVASCULAR SIGNALS* 219–34 (M. Di Rienzo et al. eds., 1995) (showing an increase in both the heart rate and blood pressure of research subjects throughout the course of a mental effort).

<sup>101</sup> As mental resources are limited, performing one task may affect our ability to perform other tasks. See Marcel Adam Just & Patricia A. Carpenter, *A Capacity Theory of Comprehension: Individual Differences in Working Memory*, 99 *PSYCHOL. REV.* 122, 122–24 (1992) (showing that the mental effort of language comprehension is determined by both the need to store information and processes that enable language comprehension).

<sup>102</sup> See *supra* Section II.A.2.

Since the information gap widens as the number of alternatives grows, having more alternatives increases the risk of error.

The second prominent reason for patients selecting a wrong choice of treatment concerns their inadequate mental (or emotional) resources needed to make such a decision. As explained above, the more complex a decision, the more mental resources people must invest in making it.<sup>103</sup> At a certain point, they might reach the limits of those resources.<sup>104</sup> Psychological studies have found that people who reach the limit of their resources might suffer from “ego-depletion.”<sup>105</sup> When a person suffers from ego-depletion, he or she tends to base choices on whims and short-term desires rather than on long-term preferences,<sup>106</sup> and is thus more susceptible to making wrong decisions. To illustrate, say that in order to eat a satisfying breakfast and get to work by 8 a.m., I must get out of bed by 7 a.m. When my alarm clock goes off at 7 a.m., however, I might feel like I need ten more minutes of sleep and hit the snooze button. I may do so even though I am well aware of the fact that more often than not, I regret this decision later on—either because I did not have enough time to eat breakfast as I wanted to or because I was late to work. My decision to hit the snooze button results from the sense of tiredness I experience when the alarm clock goes off. It thus serves my short-term desire to sleep at the expense of my long-term preferences that are more important to me. Studies have found that any activity that requires the use of mental resources can leave us with insufficient mental resources to make a good decision;<sup>107</sup> that is, to choose the alternative that is in greatest compliance with our set of preferences. As the problem of ego-depletion worsens when the choice is harder to make, there is

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<sup>103</sup> The physical effort associated with the process of making a choice is identified separately as the “cost of decision making.” See *supra* notes 100–101 and accompanying text.

<sup>104</sup> We focus on cases in which the number of alternatives and their complexity influence the probability that the choice maker will make a mistake. However, some cognitive biases, such as optimism, might also cause people to make mistakes, regardless of the number of alternatives that they face. These psychological phenomena might justify intervention in personal autonomy in ways we do not discuss here. For further discussion on such psychological and social phenomena, see THALER & SUNSTEIN, *supra* note 85, at 4–52 (suggesting “soft” intervention in people’s choice when such phenomena occur).

<sup>105</sup> “Ego-depletion” is a common term for a failure of self-regulation due to insufficient strength to override feelings or impulses. For an overview of early literature on the subject, see Baumeister et al., *supra* note 98, at 1263; see also Roy F. Baumeister & Todd F. Heatherton, *Self-Regulation Failure: An Overview*, 7 PSYCHOL. INQUIRY 1, 2–4 (1996).

<sup>106</sup> For a meta-analysis of eighty-three different studies that examined ego-depletion, see Martin S. Hagger et al., *Ego Depletion and the Strength Model of Self-Control: A Meta-Analysis*, 136 PSYCHOL. BULL. 495, 515 (2010) (finding a strong relation between ego-depletion and physical symptoms like blood glucose levels, among others).

<sup>107</sup> See *supra* note 98 and accompanying text.

a greater probability that patients who are facing a choice of medical treatments—a decision that may have significant impact on their life—will compromise their long-term preferences to satisfy their short-term desires.

The ramifications of ego-depletion might be dire, especially when the best alternative available to the patient in the long term is very uncomfortable in the short run. For example, in many situations, patients are offered several treatments, all of which will create discomfort. In such a case, patients might procrastinate, effectively choosing not to treat their ailment for the time being, just to avoid discomfort, even if they know that they will regret doing so later on.

Note that the likelihood that ego-depletion will manifest is a function not only of the “cost” of the decision at hand but also of the patient’s past decisions. When a person is required to make consecutive choices, each choice consumes a certain part of his or her available resources, until at some point, the patient becomes more susceptible to making mistakes.<sup>108</sup> Accordingly, some patients, especially those who suffer from a chronic illness that requires continuous management in several ways, need to make multiple choices regarding their treatment, and are thus exposed to an increased probability of making a mistake. Since having more alternatives to choose from (regarding each separate decision) increases the need for mental resources, when patients are offered more alternatives, they become more susceptible to ego-depletion with regard to both their immediate choice and future choices.

## 5. The Costs of Experienced Regret

Several studies have shown that the more alternatives people have to choose from, the less content they tend to be with the alternative they ultimately choose.<sup>109</sup> As opposed to the sense

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<sup>108</sup> A famous study of Israeli parole board hearings demonstrates how making several successive decisions may cause ego-depletion. The study showed that at the beginning of the day as well as after having lunch, the probability that the parole board will grant a petition for early parole was higher than right before lunch. When the judges are well rested, they have the required resources to make rational choices. As their level of resources decreases, judges tend to choose the default (in this context, the default was rejecting the petition). The costs of making decisions early in the day may have caused the judges to reach potentially wrong decisions later on. See Shai Danziger et al., *Extraneous Factors in Judicial Decisions*, 108 PROC. NAT’L ACAD. SCI. 6889, 6890 (2011). But see Keren Weinshall-Margel & John Shapard, Response, *Overlooked Factors in the Analysis of Parole Decisions*, 108 PROC. NAT’L ACAD. OF SCI. E833, E833 (2011) (criticizing the results of the former study); Shai Danziger et al., Response, *Reply to Weinshall-Margel and Shapard: Extraneous Factors in Judicial Decisions Persist*, 108 PROC. NAT’L ACAD. SCI. E834, E834 (2011) (responding to that critique).

<sup>109</sup> See, e.g., SCHWARTZ, *supra* note 54, at 86–87 (stating that choice-maximizers who seek more alternatives to choose from score high on a “Regret Scale,” meaning that

of anticipated regret discussed earlier, experienced regret is an ex post sense of regret attributed to the negative feeling choice makers may experience from *not* choosing the alternatives they rejected in making their choice. Since people are not always rational, choice makers in general tend to dwell on the alternatives that they rejected and the possibility that one of these alternatives would have made them more satisfied. This sense of regret intensifies as the number of alternatives available rises.<sup>110</sup>

Moreover, this type of regret is greater when the comparison between the relevant alternatives is more complex. When we compare between alternatives, we make trade-offs between different factors. The more relevant factors there are for a person to consider, the stronger the sense of regret may be once that person makes his or her choice, for he or she has more reasons to regret that choice.<sup>111</sup>

For example, patients may have to choose from several possible treatments when each treatment has a different possible side effect. Once patients choose a treatment and suffer from its side effects, they may regret their choice of treatment, thinking they would have felt better had they chosen one of the different treatments they considered. This regret might even have a more detrimental effect on their overall well-being than do the side effects they suffer.<sup>112</sup>

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The following matrix summarizes the benefits and costs associated with having more alternative treatments to choose from. When depriving a patient of information about the alternative treatments for her medical condition, a physician robs the patient of the positive effects related to making the choice of treatment. At the same time, this deprivation of information from the patient diminishes the negative effects associated with making this choice. As the declared purpose of the doctrine of informed consent is to

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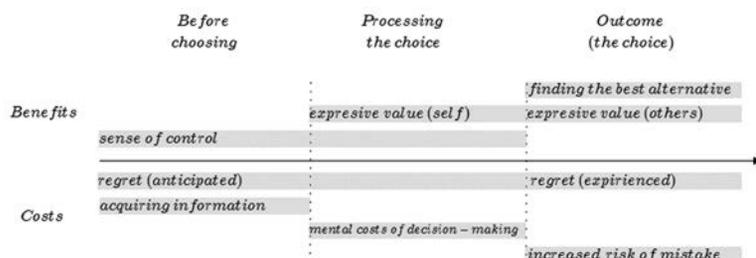
they enjoy their choice less); Sheena S. Iyengar & Mark R. Lepper, *When Choice Is Demotivating: Can One Desire Too Much of a Good Thing?*, 79 J. PERSONALITY & SOC. PSYCHOL. 995, 1002–04 (2000) (showing that participants who tasted chocolates from a wide array were significantly less satisfied with the chocolates they tried than participants who tasted chocolates from a small array).

<sup>110</sup> See Sagi & Friedland, *supra* note 94, at 517–21 (showing that the post-decision regret gets stronger with the number of alternatives). Another factor that may influence the intensity of regret is the extent to which a person is familiar with the considered alternatives. The less familiar a person is with the alternatives at hand, the higher the chances are that he or she will regret not choosing them.

<sup>111</sup> See SCHWARTZ, *supra* note 54, at 117–23.

<sup>112</sup> Notably, some psychologists assert that when people make a choice that is later found to be satisfactory, they experience a sense of elation from knowing that they made the right choice. However, studies have shown that the positive feeling of elation is not as strong as the negative feeling of regret. See *supra* note 92.

defend patients’ right to choose, we must consider both these benefits and these costs in full when applying the doctrine—and not just the positive effects of more disclosure on patient’s bodily integrity, as courts currently do. Our suggestions as to the implications of appropriately ingraining the costs and benefits of making choices within the doctrine of informed consent are the purpose of the next and last Part. As the matrix describes, some positive and negative effects of making choices extend beyond one segment on the choice-making process timeline. For instance, a person may experience a sense of control merely from being in the position to consider several alternative paths to choose from. The choice maker may then continue to experience a sense of control when processing the information regarding these alternatives, considering the potential of each of them to fit his or her goals and needs. This sense of control may last (and even intensify) until the moment at which the choice is made; i.e., when the sense of control is being realized through making the actual choice. By contrast, the benefit attained from finding the best alternative refers to the utility that the patient draws from selecting the treatment that is most consistent with his or her set of preferences. Therefore, we specifically located this benefit in the third segment, whose starting point is the act of choosing. A similar presentation can be drawn, *mutatis mutandis*, from the matrix presentation of the negative effects associated with having additional treatments to choose from. For instance, the costs patients incur from the sense of regret may continue to affect them throughout the choice-making timeline. After the choice is made, however, the correct classification of these costs does not involve anticipated regret (i.e., the fear of regretting the choice in the future), but rather experienced regret (i.e., the actual feeling of regret, manifested in wondering whether one or more of the repudiated alternatives would have comprised a better choice).



### III. RESHAPING THE DOCTRINE OF INFORMED CONSENT

Thus far, we have presented the features of the doctrine of informed consent as currently applied by courts, alongside our analysis of the benefits and costs that the process of choice making entails for patients' well-being. Armed with these insights, this third and last Part of the article discusses the necessary changes that must be embedded within the doctrine, so that its implementation will protect appropriately the right of patients to informed choice, while taking into account the effects that this choice has on their well-being.

#### A. *Setting a New Standard*

The goal of tort law is to protect people's physical, emotional, and economic well-being from wrongful interference.<sup>113</sup> The principle maintained by the doctrine of informed consent, however, is different. Tort law has recognized the right to make an informed choice as a manifestation of the idea of personal autonomy.<sup>114</sup> Thus, the doctrine of informed consent is designed to safeguard the patient's autonomy by defining situations in which depriving a person's right to make an informed choice constitutes a wrong.<sup>115</sup> Accordingly, the doctrine requires physicians to inform patients of all the possible treatments to their medical condition. The premise underlying this requirement is that as an expression of personal autonomy, the act of choosing is perceived as a good in itself; therefore, such an act can only benefit patients. According to this reasoning, having more alternative treatments to choose from is necessarily better for patients than having less. As we explained in the previous Part, however, this presumption is misguided.<sup>116</sup> Thus, we must set a new standard for disclosure—one that takes into account both the benefits *and the costs* of making choices.

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<sup>113</sup> See DAN B. DOBBS, THE LAW OF TORTS § 1 (2000).

<sup>114</sup> See, e.g., *id.* §§ 1, 95 (including autonomy within the list of interests protected by the law, Dobbs indicates that autonomy is "the centerpiece of the law on intentional torts and to some extent other torts as well"); see also *Planned Parenthood of Southeastern Pa. v. Casey*, 505 U.S. 833, 851 (1992) (observing that "choices central to personal . . . autonomy are [also] central to the liberty protected by the Fourteenth Amendment"); *Morris v. Brandenburg*, 356 P.3d 564, 579 (N.M. Ct. App. 2015) (noting that "the medical concept of dying with autonomy" should be weighed against additional "societal principles such as preventing a person from taking the life of another; . . . promoting the integrity, healing, and life-preserving principles of the medical profession," and others), *aff'd* 376 P.3d 836 (N.M. 2016); Peter H. Schuck, *Rethinking Informed Consent*, 103 YALE L.J. 899, 924 (1994) (indicating that "[t]he autonomy principle is deeply entrenched in our . . . law").

<sup>115</sup> See *In re Michael L.*, 809 N.Y.S.2d 194, 194-95 (App. Div. 2006) (indicating informed consent as a "fundamental common-law right").

<sup>116</sup> See *supra* Section II.B.

The following variation to Example 1 illustrates how the standard of disclosure should be set to protect a patient's well-being:

*Example 1.2. Alternate procedures.* John is diagnosed with a serious illness for which there are three possible treatments. All these treatments entail a similar chance to cure John's disease. They differ in the following aspects: Treatment A causes side effects of nausea and vomiting, but poses no long-term risk; Treatment B entails possible complications that put John at risk of permanent damage to his arm; Treatment C carries a very small risk of permanent neurological harm. Neither Treatment B nor C involves any short-term side effects.

How many alternatives should Mary, John's physician, present to him?

The focus of this article is on the duty of informed consent, and not the duty to provide adequate treatment. To distill our analysis of informed consent, we assume that Mary followed her duty of care by offering a proper treatment to John. Accordingly, if Mary presented John only with some of the alternative treatments, we assume that the treatments that she presented to John are those objectively considered most appropriate for his ailment, and as such, reflect the preferences of most patients in John's condition.<sup>117</sup>

Having distinguished between the duty to provide reasonable treatment and the duty of informed consent, we now turn to examine how the standard of disclosure should be

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<sup>117</sup> Physicians have a duty of care toward their patients. The standard of care is generally determined by the Learned Hand rule. According to this rule, first articulated in *United States v. Carroll Towing Co.*, by Judge Learned Hand, liability in negligence should be determined based on the relation between investment in precaution (*B*) and the product of the probability (*P*) and magnitude (*L*) of harm resulting from the accident. If *PL* exceeds *B*, then the defendant should be liable. By contrast, if *B* equals or exceeds *PL*, then the defendant should not be held liable. See *United States v. Carroll Towing Co.*, 159 F.2d 169, 173–74 (2d Cir. 1947). The formula was later endorsed by courts as well as the RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL & EMOTIONAL HARM § 3 cmt. e (AM. LAW INST., 2010) (suggesting a risk-benefit balancing test to asset negligence, substantially similar to learned hand formula, whereby the benefit is the advantage that the defendant gains if he or she refrains from taking precautions. When the costs of precautions exceed this benefit the defendant should be held liable in negligence). Sometimes, however, it is very difficult to determine which treatment should be the standard under the Hand rule. Several jurisdictions have adopted the “error in judgment” rule, whereby the physician is not considered negligent if she chose, in good faith, one of several treatments that are considered proper for the illness at hand. For jurisdictions that have adopted the error in judgment rule, see, e.g., *DiFranco v. Klein*, 657 A.2d 145,148 (R.I. 1995) (“[A]s long as a physician exercises the applicable degree of care, he or she may choose between differing but accepted methods of treatment and not be held liable”); *Ezell v. Hutson*, 20 P.3d 975, 976–78 (Wash. Ct. App. 2001) (the Washington Court of Appeals stated that the “error of judgment” instruction is proper). For jurisdictions that rejected the rule, see, e.g., *Hirahara v. Tanaka*, 959 P.2d 830, 834 (Haw. 1998); *Rogers v. Meridian Park Hosp.*, 772 P.2d 929, 931–33 (Or. 1989) (en banc) (the Oregon Supreme Court decided that a physician might be negligent while still making a mistake in good faith.); *Papke v. Harbert*, 738 N.W.2d 510, 516, 527 (S.D. 2007) (the Supreme Court of South Dakota decided that jurors should no longer be instructed that physicians are not liable for good-faith errors).

designed. This examination allows us to determine the number of alternatives that Mary, the physician in Example 1.2, should present to John in order to comply with her duty of informed consent. We maintain that the answer to this question should derive from the cost-benefit analysis presented in the previous part.<sup>118</sup> Accordingly, we contend below that the scope of Mary's duty of disclosure toward John depends on both the positive and negative effects that the process of choice making entails for John.

Example 1.2 illustrates two main benefits that John could have from choosing his treatment—enhancing John's *sense of control*, and allowing him to *choose the best alternative*. First, John's involvement in choosing his treatment could advance his *sense of control* over his life, and specifically over the course of his treatment. As we explained, this feeling can be considered as a benefit on its own, but more importantly, it might also increase John's chances of recovery.<sup>119</sup> However, the effect of John's sense of control over his recovery depends on whether he needs to take an active role in his treatment.<sup>120</sup> If, for example, Treatments B and C are surgical procedures, John's role in them is fairly limited. Accordingly, the effect that the increase in his *sense of control* might have on his long-term recovery is limited as well. By contrast, if treatment A requires John to participate actively in the medicinal treatment, then John's involvement in the choice of treatment might prove to be very beneficial in the long run, as it increases not only his sense of control but also his chances of recovery.

Having assumed that Mary provided John with proper care, if Mary revealed to John only one (or two) of the alternative treatments, it would be the alternative that most patients in John's condition would have preferred. If John has idiosyncratic preferences that lead him to favor an alternative considered inferior by most patients, however, informing John of all the alternatives might be crucial to enable him to *choose the best*

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<sup>118</sup> See *supra* Part II. Considering both the personal and social costs of choice to the patient aligns with the recent understanding that the risk the injurer imposes on herself should be taken into account when setting the standard of due care. Robert Cooter and Ariel Porat first articulated this idea, naming it “self-risk.” See Robert Cooter & Ariel Porat, *Does Risk to Oneself Increase the Care Owed to Others? Law and Economics in Conflict*, 29 J. LEGAL STUD. 19, 28 (2000); see also ROBERT D. COOTER & ARIEL PORAT, GETTING INCENTIVES RIGHT: IMPROVING TORTS, CONTRACTS, AND RESTITUTION, 32–46 (2014); Porat, *supra* note 47, at 129–33 (arguing that considering self-risk when setting the standard of care aligns the standard with the liability of the negligent injurer). The notion that self-risk should influence the standard of due care was adopted by the third restatement of torts. See RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 3 cmt. b (2010).

<sup>119</sup> See KATZ, *supra* note 54.

<sup>120</sup> See *supra* note 54.

*alternative* for him.<sup>121</sup> To illustrate, in Example 1.2, Treatment A might be considered objectively superior to Treatments B and C, as it causes no risk of permanent harm. If John is especially afraid of having nausea, however, and thus prefers to expose himself to a risk of complications, he might find Treatments B or C more suitable to his needs than treatment A. Furthermore, if John cares about his arm more than the average person (for example, if John is a baseball pitcher), then he might prefer Treatment C, which creates a smaller risk of neurological damage, over Treatment B, even if most patients would have preferred Treatment B over C. Denying John the information about Treatment C would deprive him of the benefit associated with choosing the alternative that suits him best.

Physicians cannot always know *ex ante* if the patient has idiosyncratic preferences, and they are not expected to. There is always some chance that a patient would prefer a treatment other than the one considered best objectively, and it is that chance that should be taken into account. Note that the benefit derived from having more alternative treatments to choose from depends on the differences between the alternatives. For instance, if Treatments B and C both create a risk to the patient's arm, but the risk created by Treatment B is greater than the one created by Treatment C, then there is no chance that any patient (including John) would prefer Treatment B over Treatment C. In such a case, the benefit of *finding the best alternative* from disclosing Treatment B would be zero.<sup>122</sup>

To set the standard, we must weigh the benefits that John would gain from choosing his treatment against the costs that this choice would entail for him. Two main costs are relevant in this regard: the *possibility of making a mistake* and the *costs of regret*.<sup>123</sup>

Let us assume that since Treatment A poses no risk of permanent harm, generally John would prefer it over Treatments B and C. Knowing about all three alternative treatments, however, forces John to evaluate multiple factors,<sup>124</sup>

<sup>121</sup> See our discussion on the benefit associated with finding the best alternative *supra* Section II.A.2.

<sup>122</sup> Another benefit of choice making by the patient is the ability of the patient to express his or her conviction in his or her belief system, to himself or herself and to others, through choice. This type of benefit is unique and is evident only in cases where the patient holds special beliefs that might contradict conventional medical practice. See *supra* note 76 and accompanying text.

<sup>123</sup> The costs of acquiring information and the mental cost of the process of deciding are also present, but their main importance is that they increase the probability of making a mistake.

<sup>124</sup> In reality, choosing between treatments is a lot harder than in our simplified example; treatments differ in their financial costs, chances of success, recovery time, etc.

making the task of choosing between the alternatives more difficult, even if there are only three. Faced with this dilemma, John might suffer from ego-depletion. As we explained above, ego-depletion causes patients to sacrifice their long-term genuine preferences for their short-term desires.<sup>125</sup> To illustrate, in Example 1.2, presenting John with all three alternative treatments *increases the risk of mistake*, as John might choose Treatment B or C just to avoid the side effects of Treatment A (nausea and vomiting). Alternatively, John's ego-depletion might result in procrastinating the choice of treatment, which effectively amounts to choosing not to choose, even at the price of hindering his chances of recovery.

Furthermore, even if John would choose Treatment A, which better fits his preferences, when suffering from nausea and vomiting while knowing he could have avoided this discomfort by choosing a different treatment, John might *regret* his choice. This feeling of regret might affect John's experience of the side effects and worsen his suffering.<sup>126</sup>

Considering both the benefits and costs that the process of choice making entails for patients, we suggest requiring physicians to disclose information about additional alternatives, only insofar as this disclosure is more beneficial than detrimental for their patient. Accordingly, in Example 1.2, considering that Treatments B and C are inferior to Treatment A from his perspective, John might be better off if Mary does not tell him about Treatment B or C, or both. If John's benefit from being told about either of these treatments is small compared to the costs that this information entails for him, we argue that this in itself should justify limiting the scope of Mary's duty of disclosure toward him.

Courts should objectively consider all the costs and benefits of disclosure before determining that the physician breached her duty. Example 1.2 demonstrates circumstances whereby not only does a physician's failure to fulfill her duty of disclosure cause no damage to her patient, but it might actually promote the patient's well-being. Under such circumstances, we contend that John's physician should not be held liable for breaching her duty of disclosure.

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Furthermore, most forms of treatment involve multiple side effects and possible complications. To decide, the patient needs to assess all of these factors.

<sup>125</sup> See *supra* notes 105–106 and accompanying text.

<sup>126</sup> See SCHWARTZ, *supra* note 54, at 152–54 (arguing that the feeling of regret is created by “counterfactual thinking” and therefore anticipated and experienced regret worsen as the number of possible counterfactuals it increases).

When holding a physician liable for breaching their duty, a plaintiff must still prove that this breach of duty resulted in harm. The next Section addresses the question of how courts should consider factual causation, that is, the causal link between the breach of duty and the subsequent harm, under our theory.

### *B. Modifying the Requirement of Factual Causation*

To protect patients' right to informed choice (separately from their right to receive a proper care), the law must establish some consequences for physicians' breach of the duty to disclose, regardless of whether the patient's physical harm would have occurred had the physician informed the patient about alternative treatment options. In practice, although courts have reaffirmed their intent to protect patients' right to informed choice,<sup>127</sup> they persistently demand that plaintiffs preponderantly prove that had they been fully informed, they would have chosen a different treatment and subsequently avoided the physical harm.<sup>128</sup> As we explain next, in so doing, they ignore the harm that resulted to the patient from being deprived of the process of choosing, which occurs whenever a physician breaches the duty of disclosure.

Interestingly, some common law countries have adopted a different regime. For example, in both England and Australia, a patient who is not appropriately informed by his or her physician may recover damages for physical harm, even if he or she cannot preponderantly prove that but for the breach of informed consent, he or she would not have suffered that harm.<sup>129</sup> The Israeli Supreme Court opted for a different solution. Under this court's ruling, when a physician breaches the duty of disclosure, if his or her patient suffers a physical harm but cannot successfully prove a causal link between the physician's breach of duty and that harm, the physician is excused from liability for the patient's physical harm but is held liable for "harming the patient's autonomy."<sup>130</sup> The

<sup>127</sup> See *supra* note 114 and accompanying text.

<sup>128</sup> Some thirty years ago, Marjorie Shultz argued that the law should recognize patients' interest in autonomy to distinguish it from their interest in their physical well-being. See Marjorie M. Shultz, *From Informed Consent to Patient Choice: A New Protected Interest*, 95 YALE L.J. 219, 249–50 (1985).

<sup>129</sup> See, e.g., *Chester v. Afshar* [2004] UKHL 41, [16], [18], [24] (appeal taken from Eng.) (holding, in the House of Lords, that the patient's right to an appropriate warning before surgery is of extreme importance to "ensure that due respect is given to the [patient's] autonomy"); *Accord Chappel v Hart* (1998) 195 CLR 232 (Austl.) (High Court of Australia adopting the same conclusion).

<sup>130</sup> See, e.g., *CA 2781/93 Daaka v. Carmel Hosp., Haifa*, 53(4) PD (1999) (Isr.) (the Israeli Supreme Court decided that the plaintiff was not entitled to recover for her bodily damage for lack of causation, but did allow her to recover for the violation of autonomy that resulted from not obtaining her informed consent.).

amount of damages for such a harm may vary between \$15,000 and \$100,000, according to the severity of the physician's breach.<sup>131</sup>

We argue that the three alternate regimes—the U.S. regime, the English and Australian regime, and the Israeli regime—can be located as three points on a spectrum that delineates the requirement of factual causation in cases of informed consent. U.S. law is located on one polar end, in which protecting the patient's interest of disclosure is extremely limited by the requirement of factual causation. On the opposite end, in England and Australia, patients who were not appropriately informed about their options of treatments are entitled to compensation for their entire physical harm, even in the absence of a causal link between the physician's breach of duty and that harm. Lastly, the solution applied by the Israel Supreme Court lies somewhere in the middle of this spectrum. On the one hand, the Israeli regime offers some compensation to a patient for breach of his or her right to informed choice; but on the other hand, it does not compensate the patient for the physical harm that cannot be attributed causally to the physician's breach of duty toward her.

The solution applied by Israeli Supreme Court is the closest to what we suggest in this article, as it distinguishes between the physical harm resulting to the patient from not realizing his or her right to inform choice, and the harm he or she suffers as a result of losing the benefit associated with the act of choosing (which the Israeli Supreme Court identifies as the damage to the patient's autonomy).<sup>132</sup> Recognizing the existence of the latter type of harm, the law should acknowledge two separate losses of benefit from which a patient suffers as a result of a physicians' breach of the duty of disclosure. First, this patient was deprived of the *sense of control* he or she would have gained from making an informed choice; and second, the patient was deprived of the opportunity to *choose the best alternative treatment* according to his or her own preferences.<sup>133</sup>

At present, however, to get any compensation for breach of informed consent, plaintiffs in the United States are required to prove that knowing all the relevant alternatives, they would have opted for another procedure than the one they had agreed

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<sup>131</sup> See, e.g., CA 1303/09 Kadosh v, Bikur Holim Hosp., at 13–15 (Isr.SC. Feb. 14, 2011) (reviewing the amounts granted by lower courts for harming patients' autonomy).

<sup>132</sup> See *supra* note 130.

<sup>133</sup> We discuss a third possible type of harm that can result from breach of disclosure in Part II, namely, the harm resulting from preventing the patient from expressing herself through his or her choice. This type of benefit is substantial in certain unusual cases, as demonstrated in Example 3. See *supra* note 76 and accompanying text.

to, and that, subsequently, they would have also escaped the harm resulted from the selected procedure.<sup>134</sup> This requirement ignores the harm resulting to the patient from the loss of *sense of control*, which occurs whenever the physician breaches the duty of disclosure (regardless of the occurrence of any physical harm). Patients should be compensated for this harm even if it is plausible that they would have chosen the same treatment actually performed, and thus would suffer the same physical harm, had they been given the opportunity to choose.

A second loss of benefit from which a patient suffers results from being deprived of *choosing the best alternative*; i.e., choosing the treatment that best corresponds to the patient's own preferences. Supposedly, this harm is compensated under the current doctrine of informed consent, as it is expressed by the requirement that patients establish that had they been presented with all the reasonable alternatives, they would have chosen a different treatment than the one actually performed. This observation, however, is partial. In practice, a patient who was deprived of informed choice might still be undercompensated for the loss of not *choosing the best alternative*. This may occur for two main reasons. First, subjective preferences are difficult to prove. Therefore, it is an extremely challenging task for a patient to preponderantly prove that he or she would have chosen a different treatment based on his or her idiosyncratic preferences.

Second, in several jurisdictions, the formulation of the but-for test does not allow consideration of a counterfactual that accounts for the choice of the particular patient (i.e., to consider the alternative treatment that the claimant herself would have chosen in light of her idiosyncratic preferences). Instead, patients are required to prove causation based on the choice of the "reasonable patient."<sup>135</sup> This practice empties the doctrine of informed consent of its meaning. As we explained above, physicians are already required to offer their patients a treatment that complies with the preferences of the reasonable patient, under their duty to offer proper care.<sup>136</sup> Accordingly, if a patient

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<sup>134</sup> See *supra* note 39.

<sup>135</sup> See, e.g., *Spencer v. Goodill*, No. 08C-06-183-RRC, 2009 WL 4652960, at \*7–8 (Del. Super. Ct. Dec. 4, 2009) (to prove causal connection, the plaintiff must show that a hypothetical reasonable patient in the same position would have decided differently if properly informed). Other jurisdictions require the plaintiff to prove both objective "reasonable patient" causation *and* a subjective "particular patient" causation. See, e.g., *Wissell v. Fletcher Allen Health Care, Inc.*, No. 232-2-12 Cncv, 2014 Vt. Super. LEXIS 89, \*14, \*60 (Vt. Super. Ct. May 22, 2014) (stating that in Vermont the burden is on the plaintiff to prove subjective causation, but that objective *lack* of causation is an affirmative defense under Vermont's law).

<sup>136</sup> See *supra* note 117 and accompanying text.

successfully proves that a reasonable person, in his or her condition, would have chosen a different treatment than the one that was chosen for him or her, this means that the physician breached the duty to treat the patient reasonably. Applying the but-for test by using the reasonable patient choice of treatment as a counterfactual, therefore, enables the generic duty of care to swallow any attempt to establish a claim of informed consent, thereby turning this doctrine into a meaningless rule.

Thus, it becomes clear that the current test of causation does not detect the harm resulted to patients from either losing their *sense of control* or losing the benefit associated with *choosing the best alternative*. We do not suggest, however, that the requirement of causation in cases of informed consent should be dismissed altogether. Rather, we propose that this requirement should be adjusted to the nature of these types of harms. Consider first the harm of losing the *sense of control*. This harm does not depend on what choice the patient would have made were he or she presented with all the alternative treatments.<sup>137</sup> The reason is that the harm resulted to the patient from losing her *sense of control* occurred when he or she was deprived of the opportunity to make an informed choice about the treatment, before making the actual choice. Therefore, the requirement of causation for this type of harm is fulfilled whenever a court finds that a physician breached his or her duty of disclosure toward the patient.

By contrast, the proof of harm resulting from being deprived of the opportunity to *choose the best alternative* depends on a patient's ability to prove his or her idiosyncratic preferences; that is, to prove that in light of the unique set of preferences, he or she would have chosen a different treatment than the one actually administered. As explained earlier, however, a plaintiff would find it very difficult to prove that he or she has unique, idiosyncratic preferences—especially considering the preponderance of the evidence standard, which requires the patient to prove a probability of over 50% that he or she would have chosen a different treatment. In most cases, patients would struggle to reach this level of probability, and therefore would almost never succeed in their claims for breach of informed consent. Correspondingly, physicians would systematically escape from liability for a type of harm resulting from breaching their duty of disclosure.

To accommodate these difficulties, we suggest that courts set the compensation for this type of harm according to the probability that the patient would have chosen a different

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<sup>137</sup> The same is true for the loss of opportunity to express oneself through choice.

treatment. To illustrate, consider Example 1.2. above. Assume that Mary tells John only about Treatment A, while omitting mention of Treatments B and C. Assume further that the court finds that Mary breached her duty to inform John appropriately, since evidently, she should have informed John about Treatment B as well. In this case, if it can be assumed that eight out of ten patients in John's condition would choose Treatment A, and only two out of ten would favor Treatment B, then we propose that the damages should be estimated according to the probability that John would have preferred Treatment B over Treatment A (which is, in this illustration, a probability of 20%). The idea of discounting damages by the probability of causal link between the breach and the harm has been adopted in other situations of medical malpractice in which causation is difficult to prove.<sup>138</sup> Although this solution does not reflect the harm caused to a specific patient who was deprived of the choice of treatment, we believe it is better than a state in which patients are not compensated at all for being deprived of the opportunity to choose the best treatment for them specifically.

### C. *Adjusting the Award of Damages*

Whenever the court determines that a physician breaches her duty, there should be a *prima facie* case for compensation—regardless of whether the patient would have chosen the same treatment but for the physician's breach of disclosure. The reason for this is that the harm to the patient's *sense of control* occurs whenever the physician breaches the duty of disclosure. In addition, the patient also suffered harm as a result of losing the benefit of *choosing the best alternative*.<sup>139</sup> This inference is supported by our suggestion to evaluate this type of harm based

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<sup>138</sup> The most prominent example is the "loss of chance" doctrine, under which when a physician negligently reduces the patient's chances to recover from his or her ailment (by misdiagnosing her, for example), and it is impossible to prove that the patient would have recovered had he or she been treated reasonably, the patient is entitled to damages according to the probability that he or she did not recover as a result of the physician's negligence. See, e.g., *Delaney v. Cade*, 873 P.2d 175, 185–86 (Kan. 1994) (holding that the patient may recover damages for loss of chance, but that the diminished degree of recovery must be a substantial one); *Herskovits v. Grp. Health Coop. of Puget Sound*, 664 P.2d 474, 476–77 (Wash. 1983) (holding that a 36% reduction in the decedent's chance for survival comprised sufficient evidence to allow the case to go to the jury). For support of applying a probabilistic rule to lost chance of recovery cases, see Joseph H. King, Jr., *Causation, Valuation, and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences*, 90 YALE L.J. 1353, 1382 (1981).

<sup>139</sup> Furthermore, if the choice has an *expressive function*, the patient loses the opportunity to express herself whenever the physician breaches her duty to inform.

on the probability that the patient would have chosen an alternative treatment that was not offered by the physician.<sup>140</sup>

Since the patient, however, should only be compensated for the *net* harm caused to her from the breach of the duty of disclosure, courts should offset the amount in damages by the costs that were saved to the patient as a result of that breach. In particular, the damages should be lessened by two sorts of benefits incidentally conferred upon the patient as a result of the physician's breach; namely, the reduction in the *probability of mistake*, and in the *sense of regret*. Notably, in most cases, even after offsetting the benefits that resulted from the physician's breach of duty, the patient is expected to remain with some level of harm. This result is evident from the court's decision that the standard of disclosure was breached, as the standard itself reflects the aggregation of all the benefits and costs related to the breach and indicates that the costs that the breach created exceed its benefits.

In contrast, we propose that when the choice of treatment is based mainly on the possible risks associated with each treatment, the patient should be entitled to compensation for losing the opportunity to *choose the best alternative* only if the risk from the treatment that was actually administered materializes. To illustrate, consider again Example 1.2, and assume that John is a baseball pitcher. Remember that Treatment B creates a risk of permanent harm to his arm. In this case, from an *ex ante* perspective, it is reasonable to assume that John might prefer Treatment C to Treatment B (since the former does not expose him to similar risk). This conclusion, however, changes from an *ex post* perspective, if we know that John underwent Treatment B, but the risk to his arm did not materialize. In that case, John lost nothing from being unable to choose the best treatment for himself.

Admittedly, it is hard (and maybe even impossible) to develop a neat formula that offers a precise estimation of the net harm to a patient deprived of informed choice. This should not, however, prevent courts from applying their best judgment to assess the damages of the harm caused to patients. The alternative would be leaving the right to informed choice utterly unprotected. Moreover, at present, courts frequently contend with subjective evaluations when they award compensation for pain and suffering.<sup>141</sup> As these cases illustrate, when instructing juries to

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<sup>140</sup> See *supra* note 138 and accompanying text.

<sup>141</sup> See, e.g., *Johnson v. Scaccetti*, 927 A.2d 1269, 1283 (N.J. 2007) (“[M]odel jury instructions on pain and suffering recognize the inherently subjective nature of the damage-calculation process.”).

estimate the damages to a patient deprived of informed choice, courts should acknowledge the subjective nature of the compensation requested and instruct the juries about relevant considerations, while granting them a “high degree of discretion.”<sup>142</sup>

In conclusion, we argue that the sum of compensation in cases of informed consent should reflect the net harm resulted to the patient from being deprived of informed choice. This compensation should take into account both the costs and the benefits associated with the physician’s breach of duty toward the patient.<sup>143</sup> Notably, the costs sometimes might be rather minor—especially if the estimation of the patient’s loss of the opportunity to *choose the best alternative* turns out particularly small. As mentioned above, when the patient’s choice is based on the risks associated with each alternative, the patient will suffer from this type of harm only when the risk actually materializes. In these cases, we suggest compensating the patient for the breach of informed consent only if he or she also suffers from a physical harm as a result of the physician’s breach, for two reasons: first, since there is no lost benefit of *choosing the best alternative*, the loss of *sense of control* might be completely offset by the saved costs, i.e., the reduced *probability of making a mistake* and the reduction in the *sense of regret*. Second, even if the net harm caused to the patient is positive, it would probably be very small, and thus not worth pursuing given the substantial costs of litigation.

Compensating patients for the harm caused to them by the breach of the duty of disclosure requires first to determine what the appropriate level of disclosure is. In the next section we explain that the duty of disclosure cannot be determined objectively, but rather must reflect the understanding that patients vary both in their desire to take active roles in the choice of their treatments, and in the benefits and costs that this choice entails for them.

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<sup>142</sup> Similar instructions are given to juries when calculating damages for pain and suffering. *See, e.g.,* *Jastram ex rel. Jastram v. Kruse*, 962 A.2d 503, 510–11 (N.J. 2008) (citing *Johnson*, 927 A.2d at 1282–83).

<sup>143</sup> If the patient can show that he or she would have chosen a different treatment than the one provided, and as a result would have avoided some physical harm, he or she should be compensated for her physical harm as well. The suggested calculation of damages, however, should take into account the reduction of risk that the alternate treatment would have created. *See* Ariel Porat, *Offsetting Risks*, 106 MICH. L. REV. 243, 245–46, 258 (2007) (arguing that in cases where a negligent defendant had to choose between two risky options, courts should offset damages by the risk that was not imposed on the victim from the reasonable option).

D. *Accommodating the Level of Disclosure to the Patient*

Patients vary in their need to be involved in the process of choosing their treatment. This intuition is supported by studies based on both qualitative<sup>144</sup> and quantitative research methodologies.<sup>145</sup> These studies confirm that while some patients prefer to play a dominant role in choosing their treatment, others prefer their physician to make this choice for them. Furthermore, some studies suggest that when patients prefer not to take an active part in the choice of treatment, but nonetheless are required to do so, they not only benefit less from making this choice, but also show less interest in the risks and advantages of the proposed treatments.<sup>146</sup> The latter finding indicates that patients who do not wish to choose their treatment are more susceptible to making mistakes, potentially resulting in a treatment less suited to their set of preferences.

Considering these findings, we propose that the duty of disclosure should not be designed objectively. Instead, it should reflect the understanding that while some patients should take an active role in the choice of their treatment, for others, the process of choice making is too costly. To the extent that the law aims to protect both patients' right to choose and their well-being, we propose that the level of disclosure should accommodate to the particular patient. Therefore, the scope of disclosure should be limited in the case of patients for whom the choice of treatment is too consuming. For such patients, the physician should serve as the primary choice maker.

The difficulty of this proposal is mostly practical. Admittedly, requiring physicians to estimate the negative and positive effects that a choice of treatment may create for any of their patients is extremely costly and hardly feasible. Furthermore, physicians would never be held liable for offering too much

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<sup>144</sup> 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, 2, 6 (2014) <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0100435> [<https://perma.cc/8RF8-Z7YJ>] (in-depth interviews conducted with patients reveal variance in the extent of involvement different patients prefer in treatment decision making. Individual patients' preferences may change in the course of the illness, with a shift to more active participation in the later phases).

<sup>145</sup> See, e.g., Wendy Levinson et al., *Not All Patients Want to Participate in Decision Making: A National Study of Public Preferences*, 20 J. GEN. INTERNAL MED. 531, 531-34 (2005) (A "population-based study demonstrat[ing] that people vary . . . in their preferences for participation in decision making").

<sup>146</sup> See Patricia Kenney et al., *Participation in Treatment Decision-Making by Women with Early Stage Breast Cancer*, 2 HEALTH EXPECTATIONS 159, 161-67 (1999) (showing that patients differ in their desire to participate in the choice of treatment, and that patients who want to take on a less active role had difficulties establishing preferences for the risks and benefits of treatments).

information to their patient, while they might be liable for offering too little. Therefore, physicians would often prefer to act defensively by offering an excessive amount of information to their patients, even if they suspect that such a load might become too consuming for them; otherwise, they might expose themselves to litigation for breach of informed consent. Hence, we suggest below several methods to identify patients' benefits and costs resulting from their exposure to an increased amount of information, while considering the physicians' hardship in assessing these benefits and costs on their own.

The first method that we offer is based on the idea that patients' desires could be used as an indicative tool to estimate the positive and negative effects that the process of choosing creates for them. The reasoning underlying this idea is that patients often (though not always)<sup>147</sup> are aware that a decision they face is too overwhelming for them. In these cases, we suggest that the regime of informed consent becomes more attentive to patients' instincts, by adjusting the scope of medical disclosure to the level of information to which they are ready to be exposed, even if it reduces that exposure to zero.<sup>148</sup> To illustrate, consider that John, the patient from Example 1.2, is intimidated by making significant choices regarding his medical condition. He is both dreadfully afraid of the thought of *regretting* his choice, and aware of his tendency to become severely exhausted from difficult choices—hence, his state increases the probability of *making the mistake* of choosing the wrong treatment for himself. In this case, John might want Mary, his physician, to choose the treatment for him. Under the current law, however, John is not allowed to opt out of the broad disclosure regime. At present, physicians are not allowed to limit the information they reveal to their patients, or to provide only a subset of the possible alternative treatments, even at the patient's behest.

Admittedly, allowing patients to opt out of the informed consent regime might, in itself, become a consuming decision to make; namely, it requires that patients choose the extent of their exposure to their own medical information. As explained below, however, we contend that overall, the benefits of an opt-out

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<sup>147</sup> The next methods we offer apply to patients who might be not fully informed about the costs and benefits of choice, or who are not rational.

<sup>148</sup> That is, accepting a patient's choice *not to choose*, at least to some extent, when they expect that being actively involved in their treatment will most likely increase their pain and suffering. See SCHNEIDER, *supra* note 54, at 10 (referring to patients who choose not to take an active role in a decision regarding their medical treatment as "optional autonomists"). Sunstein and Ullmann-Margalit refer to choosing-not-to-choose as a second-order decision. See Cass R. Sunstein & Edna Ullmann-Margalit, *Second-Order Decisions* 110 *ETHICS* 5, 10 (1999).

regime exceed its cons. First, an opt-out regime is extremely beneficial to patients who tend to experience exceptionally negative effects when they are required to make difficult choices. The law should allow such patients to ask for limited disclosure of information and declare that in cases of severe illnesses, they can delegate the decisions regarding their treatments to their physician. The second advantage of an opt-out regime is that it reduces the overall choice-making costs by shifting most of them from the patients to their physicians. This shift of burden is efficient, since compared to their patients, physicians bear less costs when acquiring information about the optional treatments and are expected to suffer less from regret in the process of choosing between them.<sup>149</sup> Simply put, the opt-out regime enables patients to shift the choice of treatment to the “cheapest choice makers,” who are the physicians.<sup>150</sup>

The problem with the opt-out solution is that the patients who are expected to benefit the most from it are also the patients who might hesitate the most before asking to limit the amount of information they are exposed to. In fact, empirical studies indicate that this sort of hesitation in the face of a complex decision might cause patients to refrain from making the choice of opting out altogether.<sup>151</sup> In this case, many patients might stick to the default regime of disclosure, even though it is less beneficial for them. To contend with this result, a different method should be considered, namely, an opt-in regime, which manifests the mirror image of the opt-out regime considered above. The method of opt-in exemplifies a use of “nudges”—a mechanism that exploits the costs of choice making to encourage people to make what is perceived as the desirable choice for

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<sup>149</sup> In general, choosing for others, as opposed to oneself, is less depleted because it is associated with more positive feelings (people enjoy choosing for others). See Evan Polman & Kathleen D. Vohs, *Decision Fatigue, Choosing for Other, and Self-Construal*, 7 SOC. PSYCHOL. & PERSONALITY SCI. 471, 472 (2016).

<sup>150</sup> We use the term “cheapest choice maker” as a particular implementation of Calabresi’s notion of “cheapest cost avoider.” See GUIDO CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* 143–44 (1970). This term refers to the party who is able to minimize the negative externalities of an accident most efficiently. This approach aligns with the economic goal of tort law, which is to reduce both the number of accidents and the costs of their prevention. We contend that allowing the physician to make the decision only if the patient requests to opt out of informed consent will decrease the risk of a mistaken shift of choice making; i.e., that the choice would be shifted to a physician when in fact the cheapest decision-maker is the patient.

<sup>151</sup> When faced with complex decisions, choice makers might opt for the default without giving enough thought to the alternatives. See, e.g., Eric J. Johnson & Daniel Goldstein, *Do Defaults Save Lives?*, 302 SCIENCE 1338 (2003) (showing that the choice whether or not to be an organ donor largely depend on the default—where the default is to donate, most people do not choose to opt out, and when the default is not to donate only few choose to opt in).

them, while enabling them to make a different choice if they so desire.<sup>152</sup> In the present context, the opt-in method assumes that many patients who want to narrow their involvement in medical decision making might not do so due to the high costs that this complicated decision entails.<sup>153</sup> Hence, such a method would set the default rule for the patients on the opposite pole, whereby the physicians present to the patient a very limited set of alternatives to choose from, unless the patients express their desire to opt in to the wider regime of disclosure, allowing them greater involvement in the decision-making process.<sup>154</sup> Interestingly, this description correlates with the reality experienced by many patients. Studies show that people tend to assume that they would like to make the decision regarding their course of treatment in the event of a serious illness, but when the time actually comes to make a decision, most prefer that their physician make the choice for them.<sup>155</sup>

The last method we present here, namely, personalized disclosure, differs substantially from both the opt-out and opt-in mechanisms discussed thus far. Contrary to the previous methods, it neutralizes the participation of both the patient and the physician in the decision regarding the extent of disclosure.

This method involves the use of statistical data to approximate the preferred amount of disclosure of the particular patient. Studies have shown that patients' preferences to become more involved in the process of choice making are influenced by both demographic variables (e.g., younger, more educated, female patients have consistently shown a greater desire to take an active role in making choices concerning their treatments) and medical variables ("experienced patients" with a severe diagnosis

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<sup>152</sup> THALER & SUNSTEIN, *supra* note 85, at 107, 110 (identifying default enrollment programs as a "nudge" mechanism that "channels" people in the right direction by removing barriers).

<sup>153</sup> Studies support this conclusion. *See, e.g.*, Brigitte C. Madrian & Dennis F. Shea, *The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior*, 116 Q. J. ECON. 1149, 1176 (2001) (analyzing the 401(k) saving behavior of employees before and after the change in law and concluding that the 401(k) participation rate significantly rose under automatic enrollment, although none of the economic features of the plan changed); *see also* Iyengar & Lepper, *supra* note 109, at 1004 (referring to studies supporting the conclusion according to which "the more choosers perceive their choice-making task to necessitate expert information, the more they may be inclined not to choose, and further, they may even surrender the choice to someone else—presumably more expert.").

<sup>154</sup> Up to the possibility of having a full disclosure of medical information and making the choice by themselves.

<sup>155</sup> *See* SCHWARTZ, *supra* note 54, at 32–33, 116 (reviewing studies that indicate a fundamental gap between what patients seem to want before they face a need to choose their own medical treatment, and their wants when they actually face the need to make such a choice).

tend to prefer an active role in the choice-making process).<sup>156</sup> By utilizing existing information about patients' preferences and developing new tools using big data,<sup>157</sup> physicians may be able to differentiate between patients according to their expected desire to be exposed to medical information and to take an active role in the process of choosing their treatments.

At a later stage, we believe that the suggested statistical approach—which accommodates the level of disclosure to patients' preferences regarding choice making—will be replaced by one that is aimed to predict the positive and negative effects that the choice of treatment creates for different patients. This statistical approach will enable the law to personalize the level of disclosure effectively by considering the personal costs and benefits resulting to particular patients from the process of choosing, rather than relying on their stated preferences. Furthermore, this approach will allow physicians to concentrate their efforts on offering the best care they can to their patients, by exempting them from the excessive need to assess the correct amount of disclosure for each patient.

## CONCLUSION

To date, legal scholars and courts have been fairly silent in the vibrant discussion on the value of choice in medical settings. This article seeks to fill in this gap by constructing a basic framework to analyze the duty of disclosure based on insights from psychology and behavioral economics regarding the benefits and costs of making choices.

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<sup>156</sup> See Rebecca Say, Madeleine Murtagh & Richard Thomson, *Patients' Preference for Involvement in Medical Decision Making: A Narrative Review*, 60 PATIENT EDUC. & COUNS. 102, 102–03, 109 (2006) (using meta-analysis from several qualitative and quantitative studies to show which parameters influence patients' desire to be involved in medical decision making); see also A. Robinson & R. Thomson, *Variability in Patient Preferences for Participating in Medical Decision Making: Implications for the Use of Decision Support Tools*, 10 QUALITY IN HEALTH CARE i34, i34 (2001) (showing that patients' preferences regarding participation vary and that clinicians perform poorly in assessing their patients' preferences, while patients perform poorly in estimating the effect of their involvement).

<sup>157</sup> Big data is commonly defined as the process whereby computers sift through enormous quantities of data to identify patterns that can predict individuals' future behavior. See Lior Jacob Strahilevitz, *Toward a Positive Theory of Privacy Law*, 126 HARV. L. REV. 2010, 2021 (2013). For recent use of big data in the legal arena, see, e.g., Daniel Martin Katz, *Quantitative Legal Prediction—or—How I Learned to Stop Worrying and Start Preparing for the Data-Driven Future of the Legal Services Industry*, 62 EMORY L.J. 909 (2013) (identifying applications of big data to the legal profession and suggesting its utility in different legal settings). For a recent implementation of this idea in negligence cases, see Omri Ben-Shahar & Ariel Porat, *Personalizing Negligence Law*, 91 N.Y.U. L. REV. 627, 636, 687 (2016). For a proposal to personalize disclosure to patients by using big data, see Porat & Strahilevitz, *supra* note 71, at 1470–76.

This article shows that the doctrine of informed consent, in its current form, is meaningless. The protection that it provides is already covered by the duty of physicians to treat their patients with proper care. To transform this doctrine into a useful tool for protecting patients' right to informed choice, we suggest both narrowing and expanding its implementation. On the one hand, the present doctrine is too wide, since it requires physicians to disclose to their patients all the alternative treatments for their ailment. This article shows that this requirement does not comply with scientific evidence regarding the costs that the process of choice making entails for people in general and for patients in particular. As such, we propose that the duty to inform a patient of alternative treatments should apply only insofar as such information is beneficial for the patient. When providing information about an alternative treatment creates more harm than benefit, depriving the patient of that information should not constitute a wrong in itself.

On the other hand, the doctrine of informed consent is too narrow, since its current examination of causation does not take into account the benefits that the process of choice making entails for the patient. Accordingly, this article argues that a patient should be entitled to compensation for breach of informed consent even if he or she cannot prove that, but for the breach, he or she would have chosen a different treatment.

Furthermore, this article suggests that when a physician is found liable for breaching her duty of disclosure, the court should award compensation in the amount corresponding to the net loss resulted from this breach. This article also suggests practical guidelines to evaluate this loss. Finally, this article sets forth the argument that the duty of disclosure should be adjusted to the magnitude of the effect that the choice-making process has on the particular patient. A subjective standard of disclosure could be achieved by setting a default level of disclosure and allowing patients to change it, if they wish to do so. A more sophisticated approach aims to personalize the level of disclosure by coordinating it with the estimated costs and benefits that the increase in the magnitude of disclosure creates for a particular patient, based on big data methods. As the application of big data to legal standards is in its infancy, more targeted research regarding the various costs and benefits of choice may be beneficial for personalizing the doctrine of informed consent.