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INFORMED DECISION MAKING AND THE LAW OF TORTS: THE MYTH OF JUSTICIABLE CAUSATION

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I. INTRODUCTION

The role of informed choice is a matter of considerable importance in two areas of contemporary tort litigation: medical malpractice¹ and

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1. The duty of the physician to provide the patient sufficient information for making an informed choice about therapy is a relatively new phenomenon in the law. The North Carolina Supreme Court apparently provided the earliest American reference to such a duty. *Hunt v. Bradshaw*, 242 N.C. 517, 523, 88 S.E.2d 762, 766 (1955). There, the court suggested that the doctor's failure to explain the risk of paralysis from a surgical procedure "may be considered a mistake on the part of the surgeon." However, the court quickly retreated from this suggestion and dealt with the plaintiff's claim on malpractice grounds alone. Interestingly, as late as 1956, noted legal thinkers such as Harry Kalven, Jr. and Morris Ploscowe—writing in a symposium on morals, medicine, and the law—believed that a legal remedy should not enforce a patient's right to know whether he is suffering from a fatal disease. Kalven asserted: "This is simply an extreme instance of the grossness and inappropriateness of a legal remedy in much of the area of harms to dignity and emotional tranquility." Kalven, *A Special Corner of Civil Liberties: A Legal View I*, 31 N.Y.U. L. REV. 1223, 1224 (1956). Ploscowe was even more strident:

Even if we were to assume that medical diagnosis is "truth" which a patient has a right to know, it is a little difficult to see how the right to such a truth can be enforced by the heavy-handed legal techniques of complaint, answer, bill of particulars, examination before trial, and trial by jury with its conflicting expert testimony. Nor do I see how the alleged harm done to the patient by his failure to know can be measured. Tort law is already too full of situations in which vague standards for measuring damages are applied. I see no decisive reasons for introducing another vague basis for tort liability. I believe that how much the doctor should tell a patient must be left to the doctor's conscience and the canons of medical ethics, and that this is not an area for legal interference.

Ploscowe, *The Place of Law in Medico-Moral Problems: A Legal View II*, 31 N.Y.U. L. REV. 1238, 1240 (1956). Prosser, in his torts hornbook, made no reference whatsoever to a cause of action for informed consent. H. PROSSER, *THE LAW OF TORTS* (2d ed. 1955).

The first serious scholarly discussion clearly advocating an informed consent cause of action was McCoid, *A Reappraisal of Liability for Unauthorized Medical Treatment*, 41 MINN. L. REV. 381, 426-30 (1957). Earlier comments were far too tentative and limited to influence the develop-

products liability.² Unlike the more basic issue of consent, which focuses on the willingness of the plaintiff to undergo a therapeutic procedure or to purchase a product, the informed choice question asks whether the doctor or vendor provided the patient or buyer adequate information to make an intelligent choice. The consequence of a finding that adequate information was not given, under current doctrine, is that the party with the duty of providing information is liable for all personal injury damages flowing from the ill-informed decision.³

The classic tort model for informed consent litigation, while simple in theory, is seriously flawed in practice. The model depends on constructing a causal bridge between the absence of the information and the decision of the plaintiff to proceed with the therapy or use the product. Except in the most blatant situations, the causal relationship between inadequate information and plaintiff decision making is, we shall demonstrate, not practically justiciable.⁴ The law does and can only consider the information the health professional or product vendor should deliver. It does not and cannot consider the multitude of factors that influence the way people actually make decisions. To decide causation without looking at the latter is wholly illusory. On the other hand, to insist on such an inquiry would involve the courts in the kind of investigation of human behavior that would seriously compromise the judicial process.

As long as courts and scholars insist on measuring informed consent damages by focusing on the resultant personal injuries, they cannot escape the causation dilemma. In recognizing the essential nonjusticiabil-

ment of the law. See, e.g., Lund, *The Doctor, The Patient and the Truth*, 19 TENN. L. REV. 344 (1946); Smith, *Therapeutic Privilege To Withhold Specific Diagnosis From Patients Sick With Serious or Fatal Illness*, 19 TENN. L. REV. 349 (1946). A California appellate court first coined the term "informed consent" in *Salgo v. Leland Stanford, Jr., Univ. Bd. of Trustees*, 154 Cal. App. 2d 560, 578, 317 P.2d 170, 181 (Dist. Ct. App. 1957).

2. The courts developed an informed choice action in products liability almost a decade after the onset of the products liability revolution. The first case to refer to an informed choice theory was *Borel v. Fibreboard Paper Prods. Corp.*, 493 F.2d 1076 (5th Cir. 1973), *cert. denied*, 719 U.S. 869 (1974). Several early commentators distinguished between warnings to reduce the risk of harm—risk reduction warnings—and warnings only to inform the purchaser that use of the product involves a nonreducible risk—*informed choice* warnings. Twerski, Weinstein, Donaher & Piehler, *The Use and Abuse of Warnings—Design Defect Litigation Comes of Age*, 61 CORNELL L. REV. 495, 519 (1976) [hereinafter Twerski]. Others now recognize this distinction. See, e.g., M. FRANKLIN & R. RABIN, *CASES AND MATERIALS ON TORT LAW AND ALTERNATIVES* 609-11 (3d ed. 1983); J. HENDERSON & A. TWERSKI, *PRODUCTS LIABILITY: PROBLEMS AND PROCESS* 365, 459 (1987). See *infra* text accompanying notes 54-69 for a discussion of the product liability informed choice cases.

3. See *infra* notes 37-40 and accompanying text. This article focuses exclusively on informed choice warnings and does not address warnings that reduce risk by alerting the person warned to alter his behavior so that the undesired result does not take place. These risk reduction warnings raise a separate set of problems that are well beyond the scope of this article.

4. See *infra* text accompanying notes 70-140. In this article, we use the term "justiciability" to connote the institutional ability of courts to make a coherent, reliable decision with respect to an issue. While legal writers commonly use the term to describe issues concerning the article III power of federal courts, we refer not to that narrow meaning, but rather, to its more general meaning. See, e.g., Henderson, *Judicial Review of Manufacturers' Conscious Design Choices: The Limits of Adjudication*, 73 COLUM. L. REV. 1531 (1973); Twerski, *From Risk Utility to Consumer Expectation: Enhancing the Role of Judicial Screening in Products Liability Litigation*, 11 HOFSTRA L. REV. 861 (1983).

ity of this personal injury model for informed choice cases, we do not suggest that this genre of litigation be obliterated. Instead, we suggest a radical restructuring of the informed choice doctrine. Rather than focusing on personal injury damages flowing from the hypothetical "but for," which seeks to determine what the plaintiff would have decided had the defendant provided the information, we suggest that courts should identify and value the decision rights of the plaintiff which the defendant destroyed by withholding adequate information.

Once the blinding light of spectacular personal injury damages is removed, the interests protected by the informed choice doctrine can be clearly seen. The right to participate in, and indeed, make important decisions concerning one's health is a critical element of personal autonomy. The value of this process right is largely independent of the ultimate decision. In its exclusive focus on determining personal injury damages, the legal system has largely overlooked these process rights. The legal system should protect these rights and provide significant recompense for their invasion, rather than continue its single-minded and ill-considered attention to personal injuries allegedly *caused* by the lack of information.

Many commentators have criticized, some bitterly, the existing structure for informed choice litigation.⁵ However, even those commentators who have been most sensitive to the failure of the present doctrinal structure to protect autonomy have been unwilling to confront the consequences of their own analyses.⁶ By structuring the informed choice cause of action around putatively consequential personal injury damages, they have compromised the goal of patient and consumer autonomy by fostering litigation of a causation issue that is not practically justiciable. By focusing on the identification and valuation of decision-making rights, on the other hand, the cause of action for informed choice would emerge considerably leaner, but stronger. Moreover, the cause of action would have an important asset: it would be honest. Viewed as a process right, informed choice would be freed from internal contradictions and inconsistencies⁷ which oftentimes make it the object of derision and the subject of counterintuitive assertions. With the proper model, informed choice may yet enhance the goals of patient and consumer autonomy.

II. INFORMED CHOICE: A DOCTRINAL ANALYSIS

A. *Medical Informed Consent*

Today, the broad outlines of tort doctrine concerning patient autonomy and medical choice are rather well settled.⁸ In those rare instances

5. See *infra* note 29.

6. See *infra* text accompanying notes 47-53.

7. See *infra* text accompanying notes 23-31.

8. The literature dealing with the informed consent doctrine is staggering in volume. A good review of the contours of the law can be found in P. APPELBAUM, C. LIDZ & A. MEISEL, *INFORMED*

where a patient complains that a doctor performed a medical procedure upon him without the patient agreeing to the intervention, the patient may prosecute his case using classical battery theory.⁹ Courts deem the unwanted and unconsented touching by the physician sufficiently egregious that they have assimilated the conduct of even a well-intentioned doctor to the more violent and antisocial acts of those wrongdoers more usually associated with intentional torts.¹⁰ Typically, however, patients consent to medical procedures, and doctors do not venture beyond consented-to therapy.¹¹ Rather, the more common claim of a patient is that the doctor inadequately warned of the risks of a given medical intervention, or that the doctor did not adequately explain alternative modes of treatment (including the option of nontreatment).¹² Hence, the plaintiff

CONSENT chs. 3, 6 (1987) [hereinafter P. APPELBAUM]; W. KEETON, D. DOBBS, R. KEETON & D. OWEN, PROSSER & KEETON ON THE LAW OF TORTS § 32, at 189-92 (5th ed. 1984) [hereinafter PROSSER & KEETON]; Katz, *Informed Consent—A Fairy Tale? Law's Vision*, 39 U. PITT. L. REV. 137 (1977); Shultz, *From Informed Consent to Patient Choice: A New Protected Interest*, 95 YALE L.J. 219, 223-29 (1985); Note, *Restructuring Informed Consent: Legal Therapy For the Doctor-Patient Relationship*, 79 YALE L.J. 1533 (1970). A succinct analysis of the law, providing a state-by-state compilation of the differing rules, is found in 3 PRESIDENT'S COMMISSION FOR THE STUDY OF ETHICAL PROBLEMS IN MEDICINE AND BIOMEDICAL AND BEHAVIORAL RESEARCH, MAKING HEALTH CARE DECISIONS: THE ETHICAL AND LEGAL IMPLICATIONS OF INFORMED CONSENT IN THE PATIENT-PRACTITIONER RELATIONSHIP app. L (1982) [hereinafter MAKING HEALTH CARE DECISIONS].

9. *Lojuk v. Quandt*, 706 F.2d 1456 (7th Cir. 1983); *Mohr v. Williams*, 95 Minn. 261, 104 N.W. 12 (1905); *Corn v. French*, 71 Nev. 280, 289 P.2d 173 (1955); *Schloendorff v. Society of New York Hosp.*, 211 N.Y. 125, 105 N.E. 92 (1914); *Kennedy v. Parrott*, 243 N.C. 355, 90 S.E.2d 754 (1956). Where a patient consents to a medical intervention based on a willful misrepresentation by the doctor of risks involved, a battery action also is warranted. *Spikes v. Heath*, 175 Ga. App. 187, 332 S.E.2d 889 (Ct. App. 1985).

10. But even in these cases, where the scope of consent is at issue, the courts are not free from ambivalence. In *Kinikin v. Heupel*, 305 N.W.2d 589, 593 (Minn. 1981), the court noted discomfort in extending the battery theory to a case where the plaintiff alleged that the doctor had undertaken a somewhat more extensive form of breast surgery than the one to which the patient had consented. In holding that the trial court did not err in submitting the battery issue to the jury, the court said that submitting the case on negligent nondisclosure grounds would have been preferable, because "battery is better utilized in the classic situation of a touching of a substantially and obviously different kind," rather than one "where the focus is more on the extent of the surgery performed." In an interesting variation on the scope-of-consent issue, one court found that a surgeon's performance of a less radical form of surgery when the patient understood that he would be undergoing a more radical procedure also constituted a battery. *Cathemer v. Hunter*, 27 Ariz. App. 780, 558 P.2d 975 (Ct. App. 1977). In his early work on the subject, Professor McCoid stated that even in cases where the doctor exceeded the consent of the patient, liability should depend on whether the physician violated the "reasonable and prudent doctor" standard. McCoid, *supra* note 1, at 422-34.

11. We exclude from discussion the problems that arise when doctors treat patients in emergency situations when the patient is incapable of communicating her consent or where, due to age or other incapacity, others must step in and act as the patient's surrogate. See 1 MAKING HEALTH CARE DECISIONS, *supra* note 8, ch. 9; Meisel, *The "Exceptions" to the Informed Consent Doctrine: Striking a Balance Between Competing Values in Medical Decision Making*, 1979 WIS. L. REV. 413. These issues continue to arise with some frequency. See, e.g., *Stafford v. Louisiana State Univ.*, 448 So. 2d 852 (La. Ct. App. 1984) (whether true emergency occasioned amputation of patient's leg); *Cardwell v. Bechtol*, 724 S.W.2d 739 (Tenn. 1987) (whether consent of a mature minor under the age of 18 was effective to negate a claim of battery).

12. In an exhaustive piece of scholarship, Shultz, *supra* note 8, the author argues the most serious deprivations of patient choice arise from the failure of doctors to present to the patient information concerning alternative forms of treatment, options of nontreatment, and more sophisticated modes of diagnosis. She contends that courts often do not recognize these invasions of patient

charges lack of *informed* consent to the treatment.

One might expect that if informed consent was not obtained, the courts would have recognized a cause of action for battery on behalf of the ill-informed patient. If the physician violated a duty to inform the patient of risks and alternatives to the recommended therapy such that the consent was effectively vitiated ab initio, then the doctor's touching of the plaintiff was unwanted and offensive.¹³ Nonetheless, the vast majority of courts have refused to adopt this approach.¹⁴ The conduct of a treating physician using sound medical technique is too far removed from that of the classic batterer for the use of such terminology.¹⁵ More importantly, the elements of such a cause of action would be significantly

autonomy because they may not be accompanied by a doctor's "touching" of the patient. *Id.* at 229-48. The author argues for an outright recognition of an independent right of informed choice, not tied to classic battery or negligence theory.

13. See PROSSER & KEETON, *supra* note 8, § 18, at 120 & nn.66-67. Where outright misrepresentation of material facts induces consent, then courts still occasionally recognize battery. *E.g.*, *Spikes v. Heath*, 175 Ga. App. 187, 332 S.E.2d 889 (Ct. App. 1985). A few courts, in administering a negligence-based informed consent doctrine, couch liability in battery terms. See, e.g., *Cardwell v. Bechtol*, 724 S.W.2d 739, 750-51 (Tenn. 1987).

14. P. APPELBAUM, *supra* note 8, at 118 ("The dispute over whether a lawsuit alleging lack of informed consent ought to be treated as a battery or as professional negligence has slowly withered away. By the mid-1970s, almost all states that had considered the question had concluded that inadequate disclosure is actionable only as professional negligence, not battery."). See, e.g., *Cobbs v. Grant*, 8 Cal. 3d 229, 240, 502 P.2d 1, 8, 104 Cal. Rptr. 505, 512 (1972); *Scott v. Bradford*, 606 P.2d 554, 557 (Okla. 1979); *Trogun v. Fruchtman*, 58 Wis. 2d 596, 598-600, 207 N.W.2d 297, 312-13 (1973). Occasionally, courts lapse into battery language. See, e.g., *Congrove v. Holmes*, 37 Ohio Misc. 95, 102, 308 N.E.2d 765, 770 (Ct. C.P. 1973); *Cardwell v. Bechtol*, 724 S.W.2d 739, 750 (Tenn. 1987) ("[W]hile determining whether the Defendant failed to obtain informed consent is dependent upon the standard of care of the profession . . . , [the absence of informed consent] is not negligence but battery . . .").

15. P. APPELBAUM, *supra* note 8, at 114-15; Riskin, *Informed Consent: Looking for the Action*, 1975 U. ILL. L.F. 580, 592-95. In *Trogun v. Fruchtman*, 58 Wis. 2d 596, 598-99, 207 N.W.2d 297, 312-13 (1973), the court set forth the following reasons for refusing to adopt an intentional tort theory in an informed consent action where the doctor failed to disclose collateral risks:

First, the act complained of in these cases simply does not fit comfortably within the traditional concepts of battery—the intent to unlawfully touch the person of another. In cases such as the instant one, physicians are invariably acting in good faith and for the benefit of the patient. While the result may not be that desired, the act complained of is surely not of an antisocial nature usually associated with the tort of assault and battery or battery. While the unauthorized removal of an organ yet fits the concept of battery, the failure to adequately advise of potential negative ramifications of a treatment does not. Second, and related to the first, the failure to inform a patient is probably not, in the usual case, an intentional act and hence not within the traditional concept of intentional torts. Third, the act complained of in informed consent cases is not within the traditional idea of "contact" or "touching." In the typical situation, as here, the physician impeccably performs the surgery or other treatment. Complained of are the personal reactions to such treatment which are unanticipated by the patient. Thus, for example, the instant drug therapy is not alleged to be an unpermitted touching but rather, the plaintiff alleges he ought to have been advised of the possibility of hepatitis which occurs without fault on anyone's part. Fourth, a valid question exists with respect to whether a physician's malpractice insurance covers liability for an arguably "criminal" act—battery. If not, it may be asked why a physician should be required to pay out of his own pocket for what is essentially an act of negligence—failing to inform a patient of the risks indigenous to the treatment? Fifth, these essentially negligence cases do not fit the traditional mold of situations wherein punitive damages can be awarded. For these reasons, we conclude it is preferable to affirmatively recognize a legal duty, bottomed upon a negligence theory of liability, in cases wherein it is alleged the patient-plaintiff was not informed adequately of the ramifications of a course of treatment.

Id. (footnote omitted).

different from those of a classical intentional tort, such as battery. After all, before one can determine whether the patient's consent is void due to lack of information, one must make a critical intermediate determination—how much information the patient has the right to know. Regardless of the standard for judging the adequacy of the information (“reasonable professional” or “reasonable patient”¹⁶), a close and difficult judgment call is a necessary requisite to a finding of liability. To say that a doctor who falls short of meeting a reasonableness standard is thereby transformed into an intentional tort-feasor does not seem consistent with the traditional perception of an intentional tort.¹⁷

Once courts had dismissed battery as a viable theory for informed consent, choosing negligence as the dominant approach was fully understandable. In the early years of the informed consent doctrine, courts almost exclusively used the self-same standard governing the more traditional tort of medical malpractice—the “reasonable doctor” test—as the standard of appropriate disclosure.¹⁸ This test almost invariably re-

16. See *infra* text accompanying notes 18-26.

17. When determining whether a defendant is liable for an intentional tort, courts often litigate the issue of the reasonableness of the defendant's conduct. The issue does not arise, however, in the *prima facie* case, but rather, in deciding whether a defendant is entitled to claim some privilege or justification, such as self-defense or defense of property. See *Katko v. Briney*, 183 N.W.2d 657 (Iowa 1971); *Talmage v. Smith*, 101 Mich. 370, 59 N.W. 656 (1914); *Keep v. Quallman*, 68 Wis. 451, 32 N.W. 233 (1887).

In one instance, the issue of reasonableness does become a part of the *prima facie* intentional tort case. Hornbook law states that the plaintiff must allege and prove that she did not consent to the act constituting the intentional tort. F. HARPER, F. JAMES & O. GRAY, *THE LAW OF TORTS* § 3.10 (2d ed. 1986); PROSSER & KEETON, *supra* note 8, § 18. If a reasonable person would have determined that the plaintiff consented, then consent is established, even if the plaintiff was not truly willing to let the defendant invade her rights. *O'Brien v. Cunard S.S. Co.*, 154 Mass. 272, 28 N.E. 266 (1891); RESTATEMENT (SECOND) OF TORTS § 892(2) (1979). Apparently, a plaintiff must establish that a reasonable person would not have concluded that plaintiff's conduct signified assent to the tort.

Though the reasonableness issue plays some role in classic intentional tort litigation, its role in informed consent litigation is decidedly different in character. Unlike the privilege cases, the reasonableness issue in informed consent goes to the establishment of the tort and not the affirmative defense. Nor are the cases requiring plaintiff to negate consent analogous to the informed consent issue. In the former, plaintiff need only establish that his conduct could not be interpreted as granting consent in the eyes of an objectively reasonable person. Questions of significant judgment are not implicated. Reasonableness serves an interpretive role, rather than serving as a normative standard. The very opposite is the case in informed consent litigation.

18. The case credited with giving birth to the informed consent doctrine, *Salgo v. Leland Stanford, Jr., Univ. Bd. of Trustees*, 154 Cal. App. 2d 560, 573-75, 317 P.2d 170, 181 (Dist. Ct. App. 1957), was vague as to the standard of disclosure. The court said that the physician has a duty to disclose “any facts which are necessary to form the basis of an intelligent consent by the patient to the proposed treatment.” *Id.* The court went on, however, to grant the physician “a certain amount of discretion” with regard to the facts to be disclosed. *Id.* See *Katz, supra* note 8, at 149. The entire discussion of informed consent in *Salgo* is embodied in one paragraph. There is little reason to conclude that the court was aware that it was breaking new ground.

Beginning with *Natanson v. Kline*, 186 Kan. 393, 350 P.2d 1093, *reh'g denied*, 187 Kan. 186, 354 P.2d 670 (1960), the courts articulated that the standard for medical disclosure was that information which a reasonable medical doctor would provide under the circumstances. See, e.g., *Rush v. Miller*, 648 F.2d 1075, 1076 (6th Cir. 1981); *Shetter v. Rochelle*, 2 Ariz. App. 358, 363, 409 P.2d 74, 86 (Ct. App. 1965), *modified*, 2 Ariz. App. 607, 411 P.2d 45 (Ct. App. 1966); *Fuller v. Starnes*, 268 Ark. 476, 478, 597 S.W.2d 88, 89 (Ark. 1980); *Ditlov v. Kaplan*, 181 So. 2d 226, 228 (Fla. Dist.

quired medical expert testimony as to what a prudent doctor would tell a similarly situated patient.¹⁹ If the doctor unreasonably withheld information about the risks of a recommended course of action, the doctor was liable for the harm caused by the course of action if the patient otherwise would have declined to proceed.²⁰

The confluence of the liability standard and the causation standard causes some tension. The liability standard suggests that the patient has a right to know certain risks, yet the causation standard only compensates the patient when information about those risks would have prevented the patient from taking the course of action.²¹ But, so long as the reasonable doctor disclosure standard governed, the tension was tolerable. Presumably, the only risks and alternatives that doctors had to disclose under this standard were those that gave the medical profession some pause recommending the therapeutic intervention. Once this standard was violated, no great leap was necessary to allow the jury to resolve the causation issue. Fundamentally, the jury was being asked whether the patient would have chosen a different, medically acceptable course of action. Such hypothetical "but for" cases routinely find their way to juries.²²

Ct. App. 1965); see also Annotation, *Modern Status of Views as to General Measure of Physician's Duty to Inform Patient of Risks of Proposed Treatment*, 88 A.L.R. 3d 1008 (1978).

19. See, e.g., *Riedisser v. Nelson*, 111 Ariz. 542, 544, 534 P.2d 1052, 1055 (1975); *Nishi v. Hartwell*, 52 Haw. 188, 202, 473 P.2d 116, 121 (1970); *Casey v. Penn*, 45 Ill. App. 3d 573, 584, 360 N.E.2d 93, 101 (App. Ct. 1977); *Bly v. Rhoads*, 216 Va. 645, 649, 222 S.E.2d 783, 787-88 (1979). But see *Leyson v. Steurmann*, 5 Haw. App. 504, 705 P.2d 37 (Ct. App. 1985). See generally Annotation, *Necessity and Sufficiency of Expert Evidence to Establish Existence and Extent of Physician's Duty to Inform Patient of Risks of Proposed Treatment*, 52 A.L.R. 3d 1084 (1973).

20. *Shetter v. Rochelle*, 2 Ariz. App. 358, 367, 409 P.2d 74, 83 (Ct. App. 1965), modified, 2 Ariz. App. 607, 411 P.2d 45 (Ct. App. 1966); *Natanson v. Kline*, 186 Kan. 393, 400, 350 P.2d 1093, 1099, reh'g denied, 187 Kan. 186, 191, 354 P.2d 670, 673-74 (1960). Courts and commentators, writing in the pre-*Canterbury* era, paid scant attention to the causation issue. See P. APPELBAUM, *supra* note 8, at 121-23. They seemed to assume that a subjective test would govern causation (i.e., would this patient have opted against the doctor's recommended therapy?). The plaintiff's credibility largely determined causation. The jury generally decided the issue. See Plante, *An Analysis of "Informed Consent"*, 36 FORDHAM L. REV. 639, 667 (1968); Recent Cases, *Physicians and Surgeons—Physician's Duty to Warn of Possible Adverse Results of Proposed Treatment Depends on General Practice Followed by Medical Profession in the Community*, 75 HARV. L. REV. 1445, 1449 (1962). But see *Waltz & Scheunemann, Informed Consent to Therapy*, 64 NW. U.L. REV. 628, 646-47 (1969).

21. The source of tension between the liability standard and the causation standard arises from the fact that the standard of disclosure is, ex ante, designed to give the patient decision-making power. The ex post causation standard somewhat undermines this empowering of the patient by limiting the decision-making right to only those cases in which the patient would have made a contrary decision. Given the fact that the reasonable doctor disclosure standard limited the patient's choice only to good medical alternatives, juries normally had free rein to conclude that the doctor had, in fact, breached the liability standard. Using a subjective causation standard provided some limitation, but the choice between only good alternatives likely resulted in causation being a jury issue in almost all cases. Therefore, though a significant theoretical distinction between the rights-oriented liability standard and the results-oriented causation standard existed, in practice, the vast majority of cases with inadequate disclosure went to juries on a causation question with the credibility of the plaintiff as the only significant limiting factor.

22. The literature has extensively discussed the accordionlike quality of the cause-in-fact issue. See, e.g., J. HENDERSON & R. PEARSON, *THE TORTS PROCESS* 132-34 (2d ed. 1981); PROSSER &

With the coming of *Canterbury v. Spence*²³ and its progeny,²⁴ the strain between the liability and causation standards reached the breaking point. *Canterbury* significantly changed the contours of the physician's duty to disclose material risks to the patient. *Canterbury* defined a risk as material if a "reasonable person" in the patient's position would wish to know it prior to making a decision.²⁵ Thus, a patient's right to information is no longer dictated by the medical profession's assessment of which risks and alternatives to treatment are worthy of consideration.²⁶ A much broader range of disclosure is now required.²⁷ Yet, *Canterbury* held that even if the doctor fails to disclose a material risk, liability does not attach unless a "prudent person" in the plaintiff's position would, if given the requisite information, choose against the therapy actually undertaken.²⁸ That the test for causation undermines the liability standard is hardly debatable.²⁹ A patient's right is not measured by what a reasonable person in the patient's position would want to know prior to

KEETON, *supra* note 8, § 41, at 270; Malone, *Ruminations on Cause-in-Fact*, 9 STAN. L. REV. 60 (1958).

23. 464 F.2d 772 (D.C. Cir.), *cert. denied*, 409 U.S. 1064 (1972).

24. See, e.g., *Cobbs v. Grant*, 8 Cal. 3d 229, 502 P.2d 1, 104 Cal. Rptr. 505 (1972); *Wilkinson v. Vesey*, 110 R.I. 606, 295 A.2d 676 (1972); *Miller v. Kennedy*, 11 Wash. App. 272, 522 P.2d 852 (Ct. App. 1974), *aff'd per curiam*, 85 Wash. 2d 151, 530 P.2d 334 (1975).

25. The court adopted the test suggested by *Waltz & Scheunemann, supra* note 20, at 640, which provides that "[a] risk is . . . material when a reasonable person, in what the physician knows or should know to be the patient's position, would be likely to attach significance to the risk or cluster of risks in deciding whether or not to forgo the proposed therapy." *Canterbury* 464 F.2d at 787 (quoting *Waltz & Scheunemann, supra* note 20, at 640).

26. *Canterbury*, 464 F.2d at 785; see P. APPELBAUM, *supra* note 8, at 43-47; 3 MAKING HEALTH CARE DECISIONS, *supra* note 8, app. L, at 194-95. The courts that have adopted the "reasonable patient" standard have also dispensed with the requirement that the plaintiff call expert witnesses to establish the medical standard for disclosure. See *Canterbury*, 464 F.2d at 792; *Cobbs v. Grant*, 8 Cal. 3d 229, 242-43, 502 P.2d 1, 10, 104 Cal. Rptr. 505, 513-14 (1972); *Sard v. Hardy*, 281 Md. 432, 446-47, 379 A.2d 1014, 1023-24 (1977); *Small v. Gifford Memorial Hosp.*, 133 Vt. 552, 557, 349 A.2d 703, 706 (1975).

27. See *Canterbury*, 464 F.2d at 786-88. Rejection of the medical disclosure standard clearly envisages significantly broader disclosure based on a layman's right to know.

28. *Canterbury*, 464 F.2d at 790-91; *Cobbs v. Grant*, 8 Cal. 3d 229, 502 P.2d 1, 11-12, 104 Cal. Rptr. 505, 516-17 (1972); *Reikes v. Martin*, 471 So. 2d 385, 392-93 (Miss. 1985). A large majority of courts that have adopted the *Canterbury* test, which judges materiality by a lay rather than a medical standard, followed this view on causation. See 3 MAKING HEALTH CARE DECISIONS, *supra* note 8, app. L, at 197, 206-45. Only a small minority of the decisions following *Canterbury* test causation by a subjective standard (i.e., what would this particular patient have decided if provided with the requisite information?). *Scott v. Bradford*, 606 P.2d 554 (Okla. 1979); *Arina v. Gingrich*, 84 Or. App. 25, 733 P.2d 75 (Ct. App. 1987); *Wilkinson v. Vesey*, 110 R.I. 606, 628-29, 295 A.2d 676, 690 (1972).

29. See P. APPELBAUM, *supra* note 8, at 122 ("By conditioning the availability of compensation on the congruence between the patient's own decision and what a so-called reasonable person would have decided, the objective test undercuts a patient's right of self-determination."). Many commentators have voiced similar criticism. See, e.g., J. KATZ, *THE SILENT WORLD OF DOCTOR AND PATIENT* 79-80 (1984); Epstein, *Medical Malpractice: The Case for Contract*, 1 AM. B. FOUND. RES. J. 87, 121 n.72 (1976); Goldstein, *For Harold Laswell: Some Reflections on Human Dignity, Entrapment, Informed Consent, and the Plea Bargain*, 84 YALE L.J. 683, 691 (1975); Katz, *supra* note 8, at 160-64; Riskin, *supra* note 15, at 589-90; Seidelson, *Lack of Informed Consent in Medical Malpractice and Product Liability Cases: The Burden of Presenting Evidence*, 14 HOFSTRA L. REV. 621, 623-24 (1986); Shultz, *supra* note 8, at 249-51; see also Koopersmith, *Informed Consent: The Problem of Causation*, 3 MED. & LAW 231 (1984).

decision making. Instead, the combined effect of the standards of disclosure and causation is that, for all practical purposes, a patient is only entitled to information which would lead a reasonable patient to choose against the doctor's recommended therapy. Because the recommended therapy is, by hypothesis, reasonable (if not, the case would lie in malpractice, not informed consent), the likelihood that a patient will establish causation is remote. Most reasonable patients do follow the advice of their reasonable doctors.³⁰ Thus, although the reasonable patient test for liability now requires more disclosure, the reasonable patient test for causation results in fewer findings of causation.

One wonders why the *Canterbury* court took the trouble to establish a new liability standard so easily undone by the accompanying causation standard. This approach certainly sends a mixed and highly confusing message to the medical profession. Even more puzzling is the *Canterbury* court's willingness to create a liability standard and, in the same decision, define causation in a manner which, in direct language, puts the lie to the just-articulated liability standard. Normally, only the passage of time reveals the inconsistencies which call our attention to unresolved tensions in the law. Rarely do they follow in the same paragraph, and rarer yet do such inconsistencies continue in the courts for years on end without being recognized.³¹

Commentators have speculated about why the negligence analysis has persevered. Some have suggested that the negligence-causation link is necessary to prevent large recoveries when the plaintiff was not genu-

30. At least juries will likely so conclude. See Riskin, *supra* note 15, at 589-90; Shultz, *supra* note 8, at 250.

In the pre-*Canterbury* era, courts established a narrower objective test for materiality ("reasonable doctor") and a broad-based test for causation ("subjective patient"). *Canterbury* appears to be a mirror image of the older case law. It created a broad test for materiality ("reasonable patient") and a narrower objective test for causation (what a "reasonable patient" would have chosen). Since the causation test is tied to the choice of a "reasonable patient" and such patients are usually heavily influenced by medical recommendations, the causation test is very much governed by a professional standard.

31. As noted *supra* note 28 and accompanying text, the vast majority of courts have adopted an objective test for causation. Judicial opinions spelling out the internal contradictions are rare. Only two cases appear to have seriously grappled with the problem. *Scott v. Bradford*, 606 P.2d 554 (Okla. 1979); *Arina v. Gingrich*, 84 Or. App. 25, 30-31, 733 P.2d 75, 78 (Ct. App. 1987). The discussion in *Arina* is especially perceptive. The court noted:

There are analytical as well as philosophical problems with the objective test. As noted, the standard for *disclosure* is whether the risk or alternative would be material to a reasonable patient's decision. That being so, whether a hypothetical reasonable patient's consent was *caused by the nondisclosure* of a particular material fact is either a self-answering question or an unanswerable one. It is circular to say both that a fact can be material to a reasonable person's decision and that the person would have made the same decision whether or not the person was aware of the fact.

However, the most fundamental problem with the objective test is that it poses the wrong question to the factfinder. Whether a defendant's negligence caused a plaintiff's injury is, by its nature, a case-specific question. We are aware of no other context in which it has been suggested that the jury should resolve a question of causation on the basis of a hypothetical effect that a hypothetical defendant's act is likely to have on a hypothetical plaintiff, rather than base its decision on whether the actual defendant's act was the cause of harm to the actual plaintiff.

84 Or. App. at 30-31, 733 P.2d at 78.

inely injured.³² By contrast, analyzing informed consent cases under the rubric of battery, which protects the dignitary interest of autonomy, would recognize a cause of action even without actual harm.³³ We disagree. In our opinion, the courts have tolerated, and indeed exacerbated, the internal contradictions of a negligence theory because only a theory that requires a finding of a genuine injury from the wrong would trigger real and substantial personal injury damage recoveries. Any theory which focuses on the violation of the right to autonomous decision making might yield only trivial dignitary tort damages.³⁴ In short, we suggest that the desire to compensate plaintiffs for injuries from uninformed treatment decisions has fueled the engine that has driven the development of the theoretical structure.

Two postulates lie at the heart of the prevailing thinking. Both are seriously in error. First, there is a belief that the causation issue—which focuses on what either this plaintiff or a reasonable plaintiff would have done had the defendant provided the desired information—is readily justiciable. As we shall demonstrate, playing out hypothetical human decision making in this context is virtually impossible. Second, the prevailing model assumes that the right to autonomous decision making has little or no value, standing alone. We shall argue that this right can be valued and ought not be trivialized. The single-minded focus on personal injury damages as the payoff for informed consent litigation has obscured the true injury done by removing informed decision making from the patient. As long as the law continues to live with the illusion that causation can be realistically litigated, it will be blinded by the opiate of personal injury damages. After ridding ourselves of the non-productive causation inquiry, we will be able to fashion a remedy that honestly reflects the injury that takes place when the doctor violates the decision rights of the patient.

1. *Narrowing The Question*

In evaluating informed consent doctrine, it is important to identify carefully the classes of cases to which it meaningfully applies. To the extent that classical medical malpractice analysis would make a physician liable for damages flowing from the treatment (or lack of treatment),

32. Plante, *supra* note 20, at 666-69; Riskin, *supra* note 15, at 584-85; Shultz, *supra* note 8, at 225, 232.

33. Plante, *supra* note 20, at 666-67; Riskin, *supra* note 15, at 584-85; Shultz, *supra* note 8, at 225, 232.

34. Many of the commentators who have argued for a theory of recovery which focuses on protecting the right of patient autonomy have admitted that the violation of the dignitary right is likely to be compensated by nominal damages only. See, e.g., P. APPELBAUM, *supra* note 8, at 133; Katz, *supra* note 8, at 161 n.76 (even the court in *Dow v. Kaiser Found.*, 12 Cal. App. 3d 488, 90 Cal. Rptr. 747 (Ct. App. 1970) (opinion subsequently withdrawn), which correctly utilized a battery theory, felt compelled to require the plaintiff to establish that had the doctor provided the information, the plaintiff would not have consented).

an informed consent action adds little to the plaintiff's arsenal.³⁵ Therefore, we will give little consideration to cases in which it was a violation of minimum professional standards to perform or recommend the therapy or lack of therapy at all, whether the risks of the procedure were disclosed or not. In those cases, malpractice doctrine should adequately compensate the patient.

The remaining cases, in which the informed consent doctrine is the only avenue available to plaintiffs, are those cases where neither the selection nor the performance of the treatment was malpractice. Moreover, in these cases the doctor did not fully disclose a risk inherent in the course of treatment (or the potential risks and benefits of alternative treatment), and the risk occurred, causing harm to the patient.³⁶ In only this small slice of unfortunate medical outcomes is the doctrine of informed consent, as usually formulated, relevant.

As initially developed, the doctrine of informed consent followed the traditional tort analysis of allowing recovery for damages proximately caused by the violation of a duty.³⁷ The violation was the doctor's failure to disclose certain risks of a medical procedure to the patient. The damages were the harm associated with the risk which occurred. The connection between the two was the required causal chain—the failure to disclose must have caused the harm. As usually conceptualized, the chain had two links. First, the nondisclosure must have caused the patient to agree to a procedure which otherwise would have been declined (decision causation);³⁸ second, the procedure must have caused the patient's harm (injury causation).³⁹ The second link is difficult;⁴⁰ the first

35. Theoretically, every classical medical malpractice case also raises a claim for informed choice. A patient may claim a right to be informed that a doctor's negligent conduct may be harmful so that he has the option to reject such negligent treatment. However, little is gained in so formulating the cause of action.

36. For an example of such a situation, imagine a patient suffering from a stomach ulcer. The physician recommends surgery to correct the problem. Performing the operation is generally accepted medical practice, so selection of that treatment was not malpractice. The physician then performs the surgery competently, so no malpractice issue is present in this respect. Yet, the physician neglected to inform the patient that, in surgery of this sort, there is a five percent risk that serious complications will develop. Unfortunately, the complications develop. For more about this situation, see *infra* note 88.

37. See authorities cited *supra* note 20.

38. We borrow the terms "decision causation" and "injury causation" from Meisel & Kabnick, *Informed Consent to Medical Treatment: An Analysis of Recent Legislation*, 41 U. PITT. L. REV. 407, 438-39 (1980).

39. *Id.*

40. Injury causation focuses on the question of whether the medical procedure the physician used actually caused the undesirable result. In cases in which a doctor improperly performs a medical procedure, this issue does not present great difficulties in fact-finding. This is why most of the no-fault liability proposals which are predicated on identifying a "designated compensable event" have focused on procedure-related malpractice. ABA COMM'N ON MEDICAL PROFESSIONAL LIAB., DESIGNATED COMPENSABLE EVENT SYSTEM: A FEASIBILITY STUDY 28-29, 32 (1979); Tancredi, *Designing A No-Fault Alternative*, LAW & CONTEMP. PROBS., Spring 1986, at 277, 280-82. In the "missed diagnoses" or "failure-to-treat-properly" cases, however, ascertaining whether the medical "omission" was responsible for a worsening of the plaintiff's condition is often difficult. See HARVARD MEDICAL PRACTICE STUDY GROUP, MEDICAL CARE AND MEDICAL INJURIES IN THE

link, however, is hopelessly complex.

In considering whether the failure to disclose risks was a "but for" cause of the patient's decision to agree to the procedure, it is important to remember how narrow the class of informed consent cases is. If the decision to recommend and perform the procedure was not itself malpractice, a hypothetical reasonable decision maker, taking into account all the risks and benefits of the procedure, would, at the least, not reject the procedure out of hand. Thus, to find that had the actual patient known of the risks of the procedure she would have declined the procedure, a fact finder must believe either that a reasonable decision maker ultimately would have declined the procedure (although not rejecting it out of hand) or that the patient would have made a decision different than that of our hypothetical decision maker.

Two factors could explain a difference in decision making between the patient and our hypothetical decision maker. First, the patient might give the potential costs and benefits of the procedure different weights than would the hypothetical decision maker. Thus, by using a decision-making mechanism as rational as that of the hypothetical decision maker, the patient could arrive at an alternative choice.⁴¹ Second, the patient might make decisions in an irrational way.⁴²

STATE OF NEW YORK: A PILOT STUDY 28-30 (1987). Considerable judicial and scholarly discussion has focused on the role of causation in this genre of cases. See *Alfonso v. Lund*, 783 F.2d 958 (10th Cir. 1986) (predicting that New Mexico would reject right to recover for deprivation of lost chance due to physician's malpractice); *May v. United States*, 608 F. Supp. 1476 (D. Colo. 1985) (recognizing cause of action for a reduction of chance of recovery by 25%); *Hershkovitz v. Group Health Coop.*, 99 Wash. 2d 609, 664 P.2d 474 (1983) (recognizing a cause of action when delayed diagnosis of lung cancer reduced plaintiff's chance of recovery by 14%); *King, Causation, Valuation and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences*, 90 YALE L.J. 1353 (1981); Note, *Loss of Chance: Who Can Recover in Missouri?*, 52 MO. L. REV. 223 (1987); Comment, *Alfonso v. Lund: Loss of Chance Rejected As A Basis for Medical Malpractice*, 12 OKLA. CITY U.L. REV. 187 (1987).

To decide injury causation in the context of an informed consent case, it is necessary to make a finding as to the consequences that would have resulted had the plaintiff chosen against the doctor's recommended intervention (or nonintervention). See *Epstein, supra* note 29, at 121-25; *Shultz, supra* note 8, at 288-91. In addition to this determination, a finding on decision causation requires determining the likelihood that the plaintiff would, in fact, have chosen an alternative path for treatment. On this point, *Shultz* admits that fact-finding is difficult. *Shultz, supra* note 8, at 287-88. The thesis of this article is that decision causation is more than just difficult; it is hopelessly nonjusticiable. See *infra* text accompanying notes 70-140.

Moreover, probabilistic causation theories do not solve the problem. Even the most enthusiastic proponents of such models use them primarily to advocate novel legal solutions to situations with known (or presumed) probabilistic contours. *E.g.*, *Robinson, Probabilistic Causation and Compensation for Tortious Risk*, 14 J. LEGAL STUD. 779 (1985). The problem in decision causation, on the other hand, is that we cannot realistically determine, even approximately, what the probabilities are. Probabilistic causation models do not provide this information. Thus, an additional advantage of the process model we advocate is that it does not require factual findings on such indeterminate, hypothetical issues. See *infra* text accompanying notes 141-93.

41. See *P. APPELBAUM, supra* note 8, at 43-47; *J. KATZ, THE SILENT WORLD OF DOCTOR AND PATIENT* 95-100 (1984); 1 *MAKING HEALTH CARE DECISIONS, supra* note 8, ch. 2, at 42-43.

42. By this, we do not mean to denigrate the right to make decisions on totally irrational grounds. We mean to make the point that absent special knowledge by the doctor of a patient's proclivity to make decisions in this manner, courts are unlikely to concern themselves with a patient's irrationality. A clear example of such nonrational decision making would be the desire to

Thus, to prove the first link of the causal chain—decision causation—the patient must demonstrate either (1) that a reasonable decision maker would have rejected the reasonable-to-propose procedure, (2) that the patient attaches different weights to the costs or benefits or degrees of risk associated with the procedure than would the hypothetical decision maker, or (3) that the patient makes choices in a nonrational manner. Quite obviously, the problems of hindsight-aided proof are enormous.

Canterbury v. Spence was itself a response to some of these problems. The court, in that case, recognized the difficulty in proving *ex post* whether a patient harmed by a procedure would have agreed to it had he known its risks.⁴³ Focusing primarily on the credibility problems involved in statements by a patient who has already been injured by a procedure as to what decision he would have made had he been informed of the risk of injury, but not the certainty of injury, the *Canterbury* court severely limited the ability of a patient to prove causation. By adopting a “prudent person in the patient’s position” test,⁴⁴ the court eliminated the third way, described above, to establish the causal link and cast significant doubt on the second.⁴⁵ Thus, under *Canterbury*, a patient can prevail on an informed consent claim only if a reasonable patient, after being appropriately informed of the risks of a procedure which is safe enough to be reasonable to propose, would decline the procedure nonetheless.

Canterbury has multiple problems. First, in the name of credible fact-finding, it prevents plaintiffs who actually would have declined a procedure that a reasonable person would have accepted from recovering damages. Second, it leaves for the realm of informed consent only that limited class of cases in which a performed procedure was reasonable to propose but would have been rejected by a reasonable patient. Third, and most importantly, it rests on the implicit assumption that we can say with some degree of confidence what a reasonable decision maker would have done when presented with the appropriate risk and benefit informa-

undergo an alternative treatment because it was discovered by a Republican rather than a Democrat. *But see* N.Y. Times, Mar. 31, 1981, at A1, col. 6, A3, col. 3 (reporting that following the assassination attempt on President Reagan, when he was brought into surgery, Mr. Reagan eyed the surgeons and said, “Please tell me you’re Republicans.”).

43. *Canterbury v. Spence*, 464 F.2d 772, 790-91 (D.C. Cir.), *cert. denied*, 409 U.S. 1064 (1972).

44. 464 F.2d at 791.

45. The key to understanding how much subjectivity remains in the formulation of the *Canterbury* causation standard is the weight to be given to the words “what a prudent person in the patient’s position would have decided.” 464 F.2d at 791 (emphasis added). Some commentators seem to conclude that it is wholly an objective standard that totally undermines the materiality test. *See* Katz, *supra* note 8, at 160-64; Meisel, *The Expansion of Liability for Medical Accidents: From Negligence to Strict Liability By Way of Informed Consent*, 56 NEB. L. REV. 51, 107-13 (1977); Riskin, *supra* note 15, at 589. Yet, courts, by permitting the plaintiff to testify as to what decision he would have made, have apparently allowed the jury to consider some elements of individual value in deciding what a “prudent person in the patient’s position” would have done. Perhaps by combining “prudent person” and “patient’s position” within one test the *Canterbury* court acknowledged that it would allow the jury to consider some value differences and not others. The value preferences which border on the idiosyncratic will most likely not withstand “prudent person” scrutiny.

tion concerning the procedure. As this article will demonstrate, that assumption is almost totally erroneous.

Canterbury represents an attempt, however unsuccessful, to deal with the problem of decision causation in informed consent. Implicit in *Canterbury*—and also, for that matter, in cases which reject *Canterbury* and utilize a subjective standard of decision causation⁴⁶—is a statement about the interest the informed consent doctrine protects. Despite its partial ancestry in the law of battery, informed consent, as seen by most courts, protects the same interest malpractice and other negligence torts protect—the interest in being free of injury caused by unreasonable action.

A number of commentators, however, have suggested that the courts are wrong in treating informed consent as just another branch of negligent medical practice. These commentators, led initially by Jay Katz⁴⁷ and more recently by Marjorie Shultz,⁴⁸ argue forcefully and persuasively that the interest protected by the informed consent doctrine ought to be the patient's interest in autonomy—that is, the right to make an informed choice about medical care. Yet, curiously, when it comes to determining damages for interference with that important interest, many of these commentators are silent⁴⁹ or ambivalent about how to value the interest.⁵⁰

46. See authorities cited *supra* note 28.

47. The work of Jay Katz has been enormously influential in highlighting the importance of patient autonomy. See J. KATZ, *THE SILENT WORLD OF DOCTOR AND PATIENT* (1984); Katz, *supra* note 8. For a multifaceted review and critique of Professor Katz's work, see *Symposium: Perspectives on Jay Katz, The Silent World of Doctor and Patient*, 9 W. NEW ENG. L. REV. 1-226 (1987).

48. Shultz, *supra* note 8.

49. For example, in his influential article on informed consent, Professor Katz relegates the discussion of damages to a footnote. See Katz, *supra* note 8, at 161 n.76. In that revealing footnote, Katz recognizes that when the doctor violates the patient's pure dignitary right to be informed, a court is likely to award only nominal damages. He then argues that the traditional causation rule requiring a showing of "altered conduct" on the part of the plaintiff may still be necessary. *Id.* He says:

[D]iscarding the rule of altered conduct with respect to *dignitary injury* does not necessarily imply abandoning it with respect to the causation of *physical injuries*. And the formidable problem of measuring money damages in the rare case when the plaintiff cannot testify that, fully informed, he would have demanded alternate treatment, requires further analysis.

Id. (emphasis added). In J. KATZ, *THE SILENT WORLD OF DOCTOR AND PATIENT* (1984), the issue of damages apparently was not even worthy of mention.

50. Professors Waltz and Scheunemann, early advocates of abandoning the professional standard of informed consent, were also the first to propound the "reasonable person in the patient's position" test for causation. Waltz & Scheunemann, *supra* note 20, at 646-49. They assume that the proper damages are those personal injury damages caused by the doctor's failure to provide the requisite information—damage occurring from the undisclosed risk. They would further reduce the damages by "the difference between . . . [the patient's] condition with no treatment and his condition after the undisclosed risk materialized." *Id.* at 649. The Waltz and Scheunemann position is sharply criticized by Capron, *Informed Consent in Catastrophic Disease Research and Treatment*, 123 U. PA. L. REV. 340, 419-20 n.194, 422 n.202 (1974). Although Capron advocates recognition of a cause of action for the invasion of the dignitary interest without harm, whether he would impose any causation restraints on personal injury is not clear.

Professor Riskin does address the ramifications of adopting the autonomist position, which seeks to protect the pure dignitary interest. He makes three proposals to address the causation

After all, if a failure to disclose violates the interest of autonomous choice, the damage to that interest is the same regardless of the success or failure of the medical procedure which followed the uninformed choice. Yet Shultz, for example, in her discussion of damages, takes the position that if the medical procedure with undisclosed risks is successful, damages are only nominal.⁵¹ If, on the other hand, the medical procedure fails, she would presume causation from the unreasonable failure to disclose⁵² and award damages for the harm caused by the failure.⁵³ Thus, by Shultz's analysis, the value of the interest in autonomy is, by itself, quite small. Only when violation of that interest is coupled with the consequential damages of a failed medical procedure is the patient entitled to a meaningful recovery capable of deterring violation of the interest that Schultz so strongly supports.

On close analysis, then, the autonomist critique, though valuable, creates a doctrine which depends for its vigor on a presumed causal connection between nondisclosure of risks and a patient's decision to proceed. Just as with *Canterbury* and other negligence-based informed consent cases, however, the credibility of this causal link is low.

B. *Products Liability Informed Consent*

Unlike the law of medical informed consent, in which courts have worked out the doctrinal nuances, the parallel doctrine of informed choice in products liability is still relatively primitive. Nonetheless, even at these early stages of development, the products liability cases evidence the same ambivalence concerning causation which characterizes the medical cases.

At the outset, distinguishing two categories of failure-to-warn prod-

problem. His first suggestion is to abolish decision causation and fully compensate the plaintiff for undisclosed risks which actually materialize. Riskin recognizes that this solution does not address the case in which the doctor failed to disclose alternative therapies. Riskin, *supra* note 15, at 602 n.124. The courts have, to date, refused to eliminate decision causation from informed consent litigation. Cf. *supra* text accompanying notes 21-30. Riskin's second suggestion is to shift the burden of proof of causation to the defendant. Riskin, *supra* note 15, at 604-06. His third suggestion is for a system of noninsurable fines to protect the dignitary rights of patients. *Id.* at 606-08. The Riskin article demonstrates the ambivalence that pervades the work of the autonomists. Once they have identified the shortcomings of the "but for" rule which governs decision causation, they cannot provide a viable alternative to resolve the problem.

51. Shultz, *supra* note 8, at 290-91. Shultz does suggest that a court might allow for general damages by analogy to invasion of privacy actions. *Id.* at 291 n.313. But, it is clear from her discussion that, for the informed consent action to yield substantial damages, the focus must be on tangible physical injury.

52. *Id.* at 251, 262.

53. Apparently, Shultz would start with the materialized damage from the undisclosed risk or the bad outcome as the baseline for damages. She would then discount these damages, taking into account a proportional finding on both decision and injury causation. Thus, she advocates a probabilistic estimate as to whether the plaintiff would have chosen an alternative form of treatment. *Id.* at 251, 287-88. She also recognizes that it is necessary to make another probabilistic estimate—i.e., what would have happened had a different choice been put into effect? *Id.* at 251, 289. The thesis of this article is that the decision causation issue is nonjusticiable and cannot be saved by attempts to proportionalize it.

ucts liability cases is useful. Both categories concern manufacturers' failures to warn users of risks associated with use of their products. The most common failure-to-warn cases—"risk reduction" warning cases—arise when the manufacturer has failed to warn the user of a danger from foreseeable use of the product that the user can avoid by conforming to the warning. Thus, for example, a warning on a can of lacquer that the product is extremely flammable reduces the risk of fire if the user reads the warning and extinguishes all sources of fire in the area of use.⁵⁴ In contrast, "informed choice" warning cases involve products that cannot be rendered safer by warning the user of the risks of harm from use;⁵⁵ one can only inform the user that an irreducible risk accompanies use of the product. If so informed, the consumer is free to make an informed choice about whether she wishes to use and obtain or to abstain and forgo the benefits from using the product.

A manufacturer's failure to warn of a material risk of either sort is a breach of duty. Of course, a manufacturer is not liable for a breach of duty alone. Tort law generally requires that the breach of duty cause the plaintiff's harm for the defendant to be liable. Causation has been a troubling problem in both the risk reduction and informed choice warning cases. The difficulties attending litigation of the hypothetical "but for" issue⁵⁶ substantially increase here, because in determining how the events would have played out if the defendant had provided a warning, one must necessarily determine whether the user would have read the warning, and in addition, whether the user would have responded to it through alternative conduct.

The very early cases suggesting that failure-to-warn products liability cases are subject to an informed choice analysis did not directly acknowledge the decision causation problem. In *Davis v. Wyeth Laboratories, Inc.*,⁵⁷ for example, the plaintiff, a thirty-nine-year-old male, responded to a mass polio immunization campaign. Within thirty days after taking the vaccine, the plaintiff contracted polio, ultimately causing paralysis from the waist down. Davis sued Wyeth Laboratories, the manufacturer of the vaccine, under negligence, breach of warranty, and strict liability theories. Davis relied on the fact that, subsequent to his immunization, the Surgeon General and a national association of health officers issued reports suggesting a small but definite risk of contracting polio from use of the vaccine. The risk was remote—in the range of less than one case for every one million doses. On the other hand, the Surgeon General calculated the risk of contracting polio without taking the vaccine for persons over the age of twenty to be somewhat

54. See e.g., *Burch v. Amsterdam Corp.*, 366 A.2d 1079 (D.C. 1976); *Powell v. Standard Brands Paint Co.*, 166 Cal. App. 3d 357, 212 Cal. Rptr. 395 (Ct. App. 1985).

55. See cases cited *infra* note 60.

56. See Green, *The Causal Relation in Negligence Law*, 60 MICH. L. REV. 543 (1962); Henderson, *Process Constraints in Tort*, 67 CORNELL L. REV. 901, 913-14, 921-22 (1982).

57. 399 F.2d 121 (9th Cir. 1968).

less than one in a million as well. Therefore, the Surgeon General recommended that Type III oral vaccine be administered primarily to pre-school and school age children, and that the vaccine be used for adults "only with the full recognition of its very small risk."⁵⁸

In a perceptive decision, Judge Merrill, speaking for the Ninth Circuit, noted that the case raised very special problems, since identifying in advance those adults who may be affected adversely by taking Type III Sabin vaccine was impossible. He said:

In such cases, then, the drug is fit and its danger is reasonable only if the balance is struck in favor of its use. Where the risk is otherwise known to the consumer, no problem is presented, since choice is available. Where not known, however, the drug can properly be marketed only in such fashion as to permit the striking of the balance; that is, by full disclosure of the existence and extent of the risk involved.

. . . [H]uman experimentation is essential with new drugs if essential knowledge ever is to be gained. No person, however, should be obliged to submit himself to such experimentation. *If he is to submit it must be by his voluntary and informed choice or a choice made on his behalf by his physician.*⁵⁹

The court correctly recognized that focusing on consumer choice as the fundamental value protected by a warning should determine liability.⁶⁰

58. *Id.* at 124 (quoting an unidentified report of the Surgeon General).

59. *Id.* at 129 (emphasis added).

60. The role of informed choice in products liability litigation has been widely recognized. See Twerski, *Old Wine in a New Flask: Restructuring Assumption of the Risk in the Products Liability Era*, 60 IOWA L. REV. 1, 43-48 (1974) and authorities cited *supra* note 2. Considerable judicial authority identifies informed choice as a separate ground for a product liability action. See, e.g., *Graham v. Wyeth Laboratories*, 666 F. Supp. 1483, 1498 (D. Kan. 1987); *Hamilton v. Hardy*, 37 Colo. App. 375, 380, 549 P.2d 1099, 1110 (Ct. App. 1976); *Ortho Pharmaceutical Corp. v. Chapman*, 180 Ind. App. 33, 55, 388 N.E.2d 541, 555 n.11 (Ct. App. 1979). Many cases cite the language of RESTATEMENT (SECOND) OF TORTS § 402A comment k (1965) which provides:

k. Unavoidably unsafe products. There are some products which, in the present state of human knowledge, are quite incapable of being made safe for their intended and ordinary use. These are especially common in the field of drugs. An outstanding example is the vaccine for the Pasteur treatment of rabies, which not uncommonly leads to very serious and damaging consequences when it is injected. Since the disease itself invariably leads to a dreadful death, both the marketing and the use of the vaccine are fully justified, notwithstanding the unavoidable high degree of risk which they involve. Such a product, properly prepared, and accompanied by proper directions and warning, is not defective, nor is it *unreasonably* dangerous. The same is true of many other drugs, vaccines, and the like, many of which for this very reason cannot legally be sold except to physicians, or under the prescription of a physician. It is also true in particular of many new or experimental drugs as to which, because of lack of time and opportunity for sufficient medical experience, there can be no assurance of safety, or perhaps even of purity of ingredients, but such experience as there is justifies the marketing and use of the drug notwithstanding a medically recognizable risk. The seller of such products, again with the qualification that they are properly prepared and marketed, and proper warning is given, where the situation calls for it, is not to be held to strict liability for unfortunate consequences attending their use, merely because he has undertaken to supply the public with an apparently useful and desirable product, attended with a known but apparently reasonable risk.

Courts often cite to comment k when the warning would have permitted a doctor to reduce the risk either (1) by pre-identifying plaintiff as particularly susceptible to adverse reaction or (2) by early identification of adverse reaction permitting early treatment or discontinuance of the drug.

The court did not appreciate, though, that decision causation was an issue that required resolution.

Later cases, however, confronted the decision causation issue and have articulated a principled position. In *Reyes v. Wyeth Laboratories*,⁶¹ a father brought suit on behalf of his eight-month-old daughter who contracted polio after being injected with the Sabin live-virus vaccine. The parent contended that Wyeth failed to provide information about the risk of contracting polio from the vaccine. The court concluded that such a warning was necessary and then turned its attention to the decision causation issue. Relying on Texas case law,⁶² the Fifth Circuit held that "where a consumer, whose injury the manufacturer should have reasonably foreseen, is injured by a product sold without a required warning, a rebuttable presumption will arise that the consumer would have read any warning provided by the manufacturer, and acted so as to minimize the risks."⁶³ In a subsequent polio vaccine case, *Cunningham v. Charles Pfizer & Co.*,⁶⁴ the Oklahoma Supreme Court endorsed the view that a rebuttable presumption was appropriate when a defendant failed to warn of a risk. That court opined that in future cases the *Canterbury* objective test for decision causation would govern: "[I]n light of all circumstances existing on the date plaintiff took the vaccine, would a reasonably pru-

See, e.g., Seley v. G.D. Searle & Co., 67 Ohio St. 2d 192, 423 N.E.2d 831 (Ohio 1981); McEwen v. Ortho Pharmaceutical Corp., 270 Or. 375, 528 P.2d 552 (1974).

61. 498 F.2d 1264 (5th Cir.), cert. denied, 419 U.S. 1096 (1974).

62. *Jacobs v. Technical Chem. Co.*, 480 S.W.2d 602 (Tex. 1972) was the first case to suggest a formal presumption in favor of causation in the case of an inadequate warning. The case involved the manufacturer's failure to provide a risk reduction warning on a can of Freon that an explosion could result if the Freon can were connected to the high rather than low compression side of an air conditioning unit. The court suggested that the manufacturer could rebut the causation presumption by producing evidence "that the user was blind, illiterate, intoxicated at the time of the use, irresponsible or lax in judgment or by some other circumstance tending to show that the improper use was or would have been made regardless of the warning." *Id.* at 606.

63. 498 F.2d at 1281. The court misspoke in suggesting that a consumer who had been adequately warned could have acted to "minimize the risks." *Id.* Knowing in advance which persons were likely to contract polio from the Sabin vaccine was impossible. The full text of the decision indicates at numerous points that the court well understood that this case was not one of risk reduction. *See id.* at 1274, 1276.

The court went on to find that the defendant had not introduced sufficient evidence on decision causation to rebut the presumption:

Buttressing the presumption that Mrs. Reyes might have taken preventive steps is the testimony of Reyes' expert, Dr. Ramiro Casson, that some pediatricians in Hidalgo County, at least by the time of trial, had begun administering killed-virus vaccine to infants in order to build up their level of antibodies before feeding them the live-virus drug. Tending to rebut the presumption that Mrs. Reyes would have behaved differently had she been warned was the fact that she twice returned to the Mission Clinic for further doses of vaccine, even after Anita contracted polio. Yet it is patent from her testimony that Mrs. Reyes had not, even then, been informed of the danger of the polio vaccine, and did not in fact understand what medication Anita was to receive. The legal presumption suggested by the *Technical Chemical* opinion thus operates here to provide the final element necessary to hold Wyeth Laboratories liable for Anita Reyes' poliomyelitis. . . . According to the test we have distilled above, we must assume in the absence of evidence to the contrary that Anita's parents would have acted on the warning, had it been given. Perhaps this would have prevented her polio. It unquestionably would have avoided Wyeth's liability.

Id. at 1282 (footnote omitted).

64. 532 P.2d 1377 (Okla. 1974).

dent person in plaintiff's position have refused the vaccine if adequate warning of risks had been given."⁶⁵

Despite these attempts to articulate a theory, the state of the law of decision causation in products liability remains muddled. Though a rebuttable presumption in favor of causation exists in numerous jurisdictions,⁶⁶ the kind of evidence which will suffice to rebut the presumption is not clear. In most jurisdictions, decision causation remains a question for the jury,⁶⁷ and courts apparently will uphold an affirmative finding on

65. *Id.* at 1382. Although many other courts have identified the role of informed choice in products litigation, see cases cited *supra* note 60, *Cunningham* apparently is the only case to suggest the direct analogy to *Canterbury* and medical informed consent.

66. See *Reyes v. Wyeth Laboratories*, 498 F.2d 1264 (5th Cir.), *cert. denied*, 419 U.S. 1096 (1974); *Graham v. Wyeth Laboratories*, 666 F. Supp. 1483 (D. Kan. 1987); *Hamilton v. Hardy*, 37 Colo. App. 375, 549 P.2d 1099 (Ct. App. 1976); *Ortho Pharmaceutical Corp. v. Chapman*, 180 Ind. App. 33, 388 N.E.2d 541 (Ct. App. 1979); *Wooderson v. Ortho Pharmaceutical Corp.*, 235 Kan. 387, 681 P.2d 1038, *cert. denied*, 469 U.S. 965 (1984); *Bloxom v. Bloxom*, 512 So. 2d 839 (La. 1987); *Seley v. G.D. Searle & Co.*, 67 Ohio St. 2d 192, 423 N.E.2d 831 (Ohio 1981); *Cunningham v. Charles Pfizer & Co.*, 532 P.2d 1377 (Okla. 1974); *Jacobs v. Technical Chem. Co.*, 480 S.W.2d 602 (Tex. 1972).

67. See *Graham v. Wyeth Laboratories*, 666 F. Supp. 1483 (D. Kan. 1987) (whether presumption of decision causation is rebutted in case of inadequate warnings to parent that DPT can cause brain damage is fact question for jury); *Ortho Pharmaceutical Corp. v. Chapman*, 180 Ind. App. 33, 388 N.E.2d 541 (Ct. App. 1979) (whether presumption of decision causation is rebutted where physician was not adequately warned of risk of thrombophlebitis arising from oral contraceptive is jury question); *Holley v. Burrough Wellcome Co.*, 318 N.C. 352, 348 S.E.2d 772 (1986) (whether doctor relied on inadequate warning that anesthetic can cause malignant hypothermia is jury question). *But see Plummer v. Lederle Laboratories*, 819 F.2d 349 (2d Cir.), *cert. denied*, 108 S. Ct. 232 (1987) (no evidence that physician would have warned patient of risk of contracting polio from vaccine, thus, no proximate cause as a matter of law); *Bloxom v. Bloxom*, 512 So. 2d 839 (La. 1987) (failure to adequately warn in driver manual about intense heat emanating from catalytic converter was not the cause of the fire because owner said he never read the manual—presumption of causation rebutted); *Mowery v. Crittendon Hosp.*, 155 Mich. App. 711, 400 N.W.2d 633 (Ct. App. 1986) (no evidence that physician, with better warning of risk of retinal detachment from use of Phospholine Iodide, would have decided against prescribing the drug).

Seley v. G.D. Searle & Co., 67 Ohio St. 2d 192, 423 N.E.2d 831 (Ohio 1981), deals with the issue of decision causation in a most interesting fashion. The claim against the drug company was that it had failed to warn adequately of the higher risk of strokes associated with ingestion of Ovulen by women with a prior medical history of toxemia during pregnancy. The jury found for the defendant. The court recognized that the decision causation question is governed by a presumption in favor of the plaintiff. It then evaluated the evidence to determine whether the presumption was rebutted. The court found the jury's conclusion that plaintiff had not informed the obstetrician who prescribed the Ovulen of her prior history of toxemia was supported by the record. Thus, the court concluded that even if the warnings had been in the form suggested by the plaintiff, the doctor could not have related the warnings to the plaintiff's condition. With regard to another aspect of decision causation, the court took a markedly different approach. The obstetrician had testified that he knew of the higher risk of strokes from Ovulen for women who had suffered from toxemia during pregnancy, and that he would not have been enlightened by an enhanced warning. The court categorically rejected this argument saying:

We reject this contention. A warning may serve purposes other than merely filling gaps in the intended recipient's knowledge—one may benefit from being warned or reminded of what he already knows. Similarly, only speculations can support the assumption that an adequate warning, properly communicated, would not have influenced the course of conduct adopted by a physician, even where the physician had previously received the information contained therein. "What the doctor might or might not have done had he been adequately warned is not an element plaintiff must prove as a part of her case." The evidence provided by [the doctor] as to his independently acquired knowledge is insufficient to rebut the presumption

very slender evidence.⁶⁸ Obviously the decision causation issue, though more muted than in the medical treatment context,⁶⁹ retains an important role in the failure-to-warn products liability cases.

III. THE MYTH OF JUSTICIABLE CAUSATION

As already noted, an essential link in informed consent litigation, as currently formulated, is a causal nexus between the doctor's failure to provide appropriate information and the patient's decision to proceed with the recommended procedure.⁷⁰ The vitality of this personal injury model for informed consent (in which the compensable harm is the injury caused by the procedure) depends on the ability of courts to draw that causal nexus realistically.

To make the causal connection, the patient must reconstruct the decision-making process with such detail and precision that the fact finder can determine what decision the patient would have made had the doctor presented the additional increment of information. Thus, to fulfill this task, a model of patient decision making is necessary. Indeed, inasmuch as the inquiry will focus on the effect of *additional* information on a decision, what is really needed is an understanding of human information processing and its effect on patients' decisions.

Quite obviously, the appropriate model of information processing and decision making depends on whether the applicable legal standard for causation is subjective (focusing on this patient) or objective (focusing on a reasonable patient).⁷¹ Regardless of the legal standard, however, extensive psychological research into human decision making casts significant doubt on our ability to create a credible model.

A number of factors make it difficult to predict how a person's decision would change as the amount of information provided to the person increases. First, and foremost, most people do not process information in a logical, predictable way. Rather, logical mistakes abound. Thus, how a person will perceive the benefits and risks of a decision is unpredictable.

Id. at 201, 423 N.E.2d at 839 (footnote and citation omitted). See also *Hamilton v. Hardy*, 37 Colo. App. 375, 387, 549 P.2d 1099, 1107-10 (Ct. App. 1976).

68. See *Hamilton v. Hardy*, 37 Colo. App. 375, 549 P.2d 1099 (Ct. App. 1976); *Seley v. G.D. Searle & Co.*, 67 Ohio St. 2d 192, 423 N.E.2d 831 (Ohio 1981).

69. For an explanation of why decision causation plays a lesser role in products cases, see *infra* text accompanying notes 136-40.

70. This following discussion focuses on the justiciability of causation in the medical informed consent context. The outlined problems are also germane to the products liability informed choice cases, although the products liability cases may raise causation problems that require a different resolution by the courts. See *infra* text accompanying notes 136-40. For the most part, the products liability informed choice cases are drug-related. See, e.g., cases cited *supra* notes 60, 64, 66-67. The causation question focuses on whether a doctor or a patient would have proceeded with the selfsame drug therapy if in possession of additional information. Henceforth, we will most often refer to the decision maker as the "patient," though in the products context, either the doctor who prescribes the drug or the patient may be the actual decision maker. Similarly, we will refer to the party with the duty to disclose information as the "doctor." When we speak in terms of "malpractice," the analogous concept in the products cases is liability for an unreasonably dangerous product.

71. See *supra* text accompanying notes 28-31.

Second, not only the information itself which is presented, but also the manner in which the information is presented affects people's decisions. Unless we know the manner in which the withheld information would have been presented, we often cannot credibly predict its effect. Third, the prior beliefs and information of the decision maker significantly affect the impact of additional information on a decision; unless we completely uncover the base on which the additional information would have stood, we cannot determine the effect of the additional information. Any one of these factors should make us doubt our power to determine what decision a person would have made if additional information had been presented. In a milieu where a decision-making model seeks to determine whether the additional information would have caused the patient to decline a reasonable procedure,⁷² the combined effect of all three factors leaves any such model little credibility. We must emphasize that these factors are relevant to the causation issue not because they show whether patient decisions are correct or incorrect. Rather, they are relevant because they show that the legal system is unable to predict the decisions which a patient's analysis of information will produce, whether that analysis is logical or illogical.

A. *Illogical Processing of Information*

It is now clear that people simply do not make decisions in an objectively rational way. More than two decades of research establishes that people making decisions—whether laymen or scientists—consistently make gross errors in evaluating objective information.⁷³ These errors in evaluation distort the meaning of the information which provides the matrix for decision making. Of course, the decision one makes after evaluating all relevant data will often reflect individual values; but fundamental errors in logic are not the product of differing values. Two plus two does not equal three in any value system. To the extent that human decision makers process information in an illogical and unpredictable way, a model which purports to tell us what decision a patient would have made if provided with certain additional information is suspect.

If the particular logical errors which people typically make were limited to one aspect of human information processing, perhaps we could isolate that aspect, guess what error would have been made, and try to predict resulting decisions. Unfortunately, the loci of human errors are

72. Recommending an unreasonable procedure would itself be malpractice. See *supra* text accompanying note 35.

73. Much of the work in this area is collected in *JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES* (D. Kahneman, P. Slovic & A. Tversky eds. 1982) [hereinafter *JUDGMENT UNDER UNCERTAINTY*]. Studies of particular relevance to the concept of informed consent are expertly gathered and discussed in Thompson, *Psychological Issues in Informed Consent*, in 3 *MAKING HEALTH CARE DECISIONS*, *supra* note 8, app. H. Much of the discussion in this paper about the failure to process information logically is drawn from the Thompson article.

not limited. Cognitive psychologists have identified numerous categories of logical error in human information processing and decision making. A few examples will suffice.

1. *Underutilizing Base Rate Information*

One of the more dramatic of such species of logical error flows from our tendency to give disproportionate weight to an isolated, specific instance or piece of information while giving insufficient weight to the underlying milieu from which the specific instance or item of information was drawn. This sort of error can result in significant misjudgment.

For example, imagine that during National Cancer Prevention Week advertisements convinced a patient who had no reason to suspect that he had cancer to take a diagnostic test for riboma, a usually fatal form of cancer that is present in 5 out of every 1000 people. The diagnostic test is quite accurate: 95% of those with the cancer will test positive, while 95% of those without the cancer will test negative.⁷⁴ If the test yields a positive result, what are the chances that the patient has cancer?

Most patients in this situation would believe it highly likely that they have cancer. After all, the test is "95% accurate." Yet, upon close analysis which takes into account the base rate of riboma, we can see, counterintuitively, that the chances of cancer are relatively small.⁷⁵

The analysis requires only simple arithmetic. Imagine a population of 20,000, all of whom take the diagnostic test. The base rate information we have about riboma tells us that 5 out of every 1000 people suffer from riboma. Thus, in a population of 20,000, we can expect that there will be 100 people with riboma (and, of course, 19,900 people without it). Our information about the diagnostic test tells us that 95% of those with the cancer will test positive; thus, of the 100 riboma sufferers, 95 will probably test positive, while 5 will test negative. Of the 19,900 people without riboma, on the other hand, 95% , or 18,905, will test negative, while 5%, or 995, will test positive. These calculations are summarized in the following table:

74. To phrase it more technically, the test carries with it a 5% risk of Type I error (also known as a "false positive"), because 5% of those who do not have cancer will test positive. Similarly, it also carries a 5% risk of Type II error (also known as a "false negative"), because 5% of those with the cancer will test negative. Of course, the risks of Type I error and Type II error need not be equal, as they are in this hypothetical example. See generally Cohen, *Conceptualizing Proof and Calculating Probabilities: A Response to Professor Kaye*, 73 CORNELL L. REV. 78 (1987); Cohen, *Confidence in Probability: Burdens of Persuasion in a World of Imperfect Knowledge*, 60 N.Y.U. L. REV. 385 (1985).

75. For similar examples, see H. BURSZTAJN, R. FEINBLOOM, R. HAMM & A. BRODSKY, *MEDICAL CHOICES, MEDICAL CHANCES: HOW PATIENTS, FAMILIES, AND PHYSICIANS CAN COPE WITH UNCERTAINTY* 130-37 (1981); Thompson, *Psychological Issues in Informed Consent*, in 3 *MAKING HEALTH CARE DECISIONS*, *supra* note 8, app. H.

	<u>CANCER</u>	<u>NO CANCER</u>	<u>TOTAL</u>
TEST POSITIVE	95	995	1,090
<u>TEST NEGATIVE</u>	<u>5</u>	<u>18,905</u>	<u>18,910</u>
TOTAL	100	19,900	20,000

A brief glance at the table reveals a startling fact: although the riboma test is "95% accurate," of the 1090 people who test positive, 995 do not have cancer. In other words, of those who test positive 91.28% do not have cancer, while only 8.72% have cancer.⁷⁶ This counterintuitive result springs from the too-easily-ignored base rate of riboma, which is quite low. The test was not meaningless (before the test, our best information would be that each person would have a 0.5% chance of having riboma; after the test, a person who tests positive is known to have an 8.72% chance of having that cancer), yet its meaning is dramatically different than many patients presented with this information would initially expect.⁷⁷

Quite obviously, failure to take into account base rate information can have serious effects on medical decision making. If the only cure for riboma were surgery with a 35% fatality rate, for example, a patient who believed that he had a 95% chance of having riboma would be much more likely to risk the surgery than a patient who believed he had an 8.72% chance of having the disease. To place this in the context of informed consent, consider a situation in which a physician has told her patient that he has tested positive for riboma, and that the test is 95% accurate, but has not told him about the base rate of riboma. If the physician asks the patient for his consent to attempt the surgical cure for riboma, the answer could easily be yes—after all, although the surgery is risky, it appears quite likely that the patient has the fatal disease. What if the doctor also told the patient about the base rate of riboma? If he accurately combined the base rate information with the diagnostic test results to conclude that he had only an 8.72% chance of having riboma, he would probably decline the surgery. But would the patient be likely to combine accurately the diagnostic and base rate information?

The answer to this question is probably not. As studies by Professors Kahneman and Tversky, among others, have conclusively demonstrated, as soon as diagnostic information enters the picture, it almost always overshadows base rate information.⁷⁸ Indeed, not only the untu-

76. This result, of course, could be obtained more directly by use of Bayes' theorem. See generally T. WONNACOTT & R. WONNACOTT, *INTRODUCTORY STATISTICS FOR BUSINESS AND ECONOMICS* 542 (2d ed. 1977).

77. Admittedly, in this textbook example we applied the Bayesian rule in a case where a patient without any symptoms underwent random testing. In the more typical situation, one will have to adjust the probabilities to account for symptoms, duration of pain, family predisposition, and other idiosyncratic factors. Nonetheless, the failure to account for base rate data can bring about serious and often outrageous error in risk evaluation.

78. Kahneman & Tversky, *On the Psychology of Prediction*, 80 *PSYCHOLOGICAL REV.* 237

tored make this logical error; studies demonstrate that even supposedly sophisticated scientists chronically undervalue base rate data.⁷⁹

Thus, we obviously cannot assume that a patient with the base rate data would decide differently than one without, even though, if both patients act logically, the information clearly might make a difference. The assumption of logical information processing is empirically untenable. If we cannot count on patients to make logical analyses of the facts presented to them, on what basis can a fact finder determine the effect an additional fact would have had on a patient's analysis of the situation, and thus, on the subsequent decision?

If the only aspect of information processing that patients tend to perform illogically concerned base rates, perhaps the legal system could deal with the phenomenon. For one thing, part of the doctor's duty could be to indicate the appropriate probabilities, after taking into account both base rate and diagnostic data. In the riboma case, for example, the doctor's duty could be to report not merely that 5 people out of 1000 have the disease, and that the 95% accurate test was positive, but also that the combined effect of these two pieces of information is that the patient has only an 8.72% chance of having riboma.⁸⁰

Unfortunately, the misuse of base rate data is only one of many problems that affect data processing by patients. The literature is replete with examples of the high frequency of illogic in combining pieces of information to reach conclusions. As these studies make clear, while the rational analysis of data relevant to important decisions may be an aspiration for all, it is not an accurate description of reality for many. The cumulative effect of all of these types of processing errors makes it impossible to frame a workable duty for the doctor or to predict and prove how the patient would err.

2. *Assessing Multiple Risks*

Closely related to base rate problems are the difficulties patients face in assessing multiple risks. In many cases, a medical procedure will pose risks of several different adverse effects. If the adverse effects involved are quite serious, a patient may make the decision whether to go ahead with the procedure based on his estimate of the likelihood that none of the adverse effects will occur. If the adverse effects are somewhat less

(1973); see also R. NISBETT & L. ROSS, HUMAN INFERENCE: STRATEGIES AND SHORTCOMINGS OF SOCIAL JUDGMENT 157 (1980). But see Kruglanski, Friedland & Farkash, *Lay Persons' Sensitivity to Statistical Information: The Case of High Perceived Applicability*, 46 J. PERSONALITY & SOC. PSYCHOLOGY 503 (1987).

79. See sources cited *infra* note 80.

80. Of course, this enhanced duty would require the physician to calculate the probabilities correctly, a task which would prove difficult for many physicians. See Tversky & Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 73, ch. 1, at 18 ("Experienced researchers are also prone to the same biases . . ."); see also Detsky, Editorial, *Decision Analysis: What's the Prognosis?*, 106 ANNALS INTERNAL MED. 321 (1987); Sox, Editorial, *Decision Analysis: A Basic Clinical Skill?*, 316 NEW ENG. J. MED. 271 (1987).

serious, on the other hand, the patient may base the decision on his estimate of the likelihood that no more than a certain number of the potential adverse effects will occur. Even if the doctor provides the patient complete and accurate information as to the risks of each of the individual potential adverse effects, however, the patient is unlikely to combine those pieces of information correctly to determine the combined probabilities on which he will base his decision.

For example, assume that a doctor recommends a particular surgical procedure to her seriously ill patient. As part of the recommendation, she tells the patient that there is a 20% chance of a fatal cardiac arrest during the operation and a 30% chance that the operation will cause irreversible neurological damage. Quite understandably, the patient would like neither of these outcomes to occur; thus, he will base his decision on the probability that either cardiac arrest *or* neurological damage will occur. If that probability is too high, he will decline the operation. If the two risks are independent, the chance of either occurring is 44%.⁸¹

Alternatively, imagine a procedure for which the known risks are partial memory loss (20% chance) and migraine headaches (30% chance). The patient is willing to suffer one of those hardships, but not both. The probability of concern to this patient, then, is the probability that both risks will occur. If the risks are independent, this probability is 6%.⁸²

How many patients would correctly assess these probabilities? Research indicates that people typically underestimate disjunctive (A or B) probabilities and overestimate conjunctive (A and B) probabilities.⁸³

81. The probability of either risk occurring equals one minus the probability that neither risk will occur. The probability that neither risk will occur is equal to the product of the probability that the first risk will not occur and the probability that the second risk will not occur. The probability that the first risk will not occur is 0.8 (1.0 - 0.2), and the probability that the second risk will not occur is 0.7 (1.0 - 0.3). The product of these probabilities is 0.56. Therefore, the probability that either risk will occur is 1.00 - 0.56, or 0.44 (or 44%).

Symbolically:

$$\begin{aligned}
 P(A \text{ or } B) &= 1 - P(\text{not-A and not-B}) \\
 P(\text{not-A and not-B}) &= P(\text{not-A}) \times P(\text{not-B}) \\
 P(\text{not-A}) &= 1 - P(A) \\
 P(\text{not-B}) &= 1 - P(B) \\
 P(A) &= 0.2 \\
 P(B) &= 0.3 \\
 \text{Therefore,} \\
 P(A \text{ or } B) &= 1 - (0.8 \times 0.7) \\
 &= 1 - 0.56 \\
 &= 0.44 = 44\%
 \end{aligned}$$

82. $P(A \text{ and } B) = P(A) \times P(B)$.

83. See Pitz, *Sensitivity of Direct and Derived Judgments to Probabilistic Information*, 65 J. APPLIED PSYCHOLOGY 164 (1980); Tversky & Kahneman, *Extensional Versus Intuitive Reasoning: The Conjunction Fallacy in Probability Judgement*, 90 PSYCHOLOGICAL REV. 293 (1983). Moreover, combining multiple probabilities is easy only when the multiple risks are independent of one another. This is rarely the case. And when risks are related, any lack of data on the extent to which they are related makes it impossible to accurately assess the combined risks.

Given the narrow range of cases in which informed consent doctrine is meaningful,⁸⁴ the possibility of even a relatively small miscalculation casts in doubt the imaginary, reconstructed causal chain. In these multiple risk cases, the likelihood of inaccurately reconstructing the patient's decision is high. The fact finder must first determine whether the patient's decision would have depended on his assessment of the likelihood of all risks occurring, or only one of them. The fact finder must then speculate as to the results of the patient's assessment (error-ridden or not).⁸⁵

3. *Availability*

Still another common species of information processing with questionable rationality and, therefore, uncertain predictability, relates to the tendency of many people to give excessive weight to easily accessible and memorable examples of a particular phenomenon, while giving too little weight to drier collections of data. Bertrand Russell recognized this over six decades ago when he observed that "popular induction depends upon the emotional interest of the instances, not upon their number."⁸⁶ An example of this phenomenon is provided by Thompson:

Imagine, for example, that you are suffering from a stomach ulcer and your doctor suggests you have surgery to have it removed. The doctor mentions that there is a 5% chance that complications will develop, necessitating further surgery, but that in 95% of the cases a single operation is sufficient. Beyond that, the operation poses only the usual risks associated with general anesthesia and abdominal surgery, which are quite small. Having decided to have the surgery, you mention your intention to an acquaintance who says: "Oh my God. Don't do it. They performed that operation on my Uncle Harry; it was the beginning of the end. Soon as they took out one ulcer another popped up, then another. Pretty soon they had taken out most of his stomach and a good part of his intestines. Then he started hemorrhaging. It was awful. Poor old Harry. Maybe if he had just lived with the damn ulcer he'd still be alive today."⁸⁷

The vividness of this additional information should not cause it to be given disproportionate importance. In the example just cited, Uncle Harry's unfortunate experience should have little effect on the decision.

84. See *supra* text accompanying notes 35-42.

85. Should the doctor's duty also encompass soliciting decision criteria from the patient and aiding him in combining multiple probabilities? While this may be a worthy aspirational standard, tort law does not typically make rules of conduct out of such unmanageable aspirations. See generally Ames, *Law and Morals*, 22 HARV. L. REV. 97 (1908); Bohlen, *The Moral Duty to Aid Others as a Basis of Tort Liability*, 56 U. PA. L. REV. 217 (1908).

86. B. RUSSELL, *PHILOSOPHY* 269 (1927), quoted in Nisbett, Borgida, Crandall & Reed, *Popular Induction: Information Is Not Necessarily Informative*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 73, ch. 7, at 112.

87. Thompson, *Psychological Issues in Informed Consent*, in 3 MAKING HEALTH CARE DECISIONS, *supra* note 8, app. H, at 92.

Assuming his case was not included among the 5% of cases with complications which the doctor mentioned, the friend's story should cause the estimated likelihood of complications to be revised upward by only a minuscule amount. Before learning about this case, the estimate of the likelihood of complications was 5%. If that 5% estimate was based on 10,000 cases, learning about one additional case should cause a revision upward to only 5.01%. Yet, research on the availability heuristic tells us that this one additional case would probably have considerably greater influence on most people's subjective assessments.⁸⁸

Several theories attempt to explain why people overvalue specific examples.⁸⁹ But why this species of illogic exists is less important for our purposes than the fact that it does exist. This logical flaw can influence the hypothetical decision causation analysis in two ways. If omitted information in an informed consent case was in the nature of summary statistics gleaned from a large number of cases, the fact finder can never be sure that the patient would have taken this information into account appropriately; a patient who also knew of one or more specific example of the "Uncle Harry" sort might well have discounted the summary data.⁹⁰ If, on the other hand, the omitted item of information was a specific memorable example, the fact finder can never be sure that the patient would have given the information its logically appropriate weight; it is likely, as these studies suggest, that the patient would overvalue the information.

The effect of the prevalence of illogical analysis is critical to the doctrine of informed consent.⁹¹ After all, the decision causation question in

88. See, e.g., R. NISBETT & L. ROSS, *supra* note 78, at 73-89; Tversky & Kahneman, *Belief in the Law of Small Numbers*, 76 PSYCHOLOGICAL BULL. 105 (1971); see also R. COOTER & T. ULEN, *LAW AND ECONOMICS* 416-17 (1988); Slovic, *Informing and Educating the Public About Risk*, 6 RISK ANALYSIS 403, 404-05 (1986).

89. See R. NISBETT & L. ROSS, *supra* note 78, at 36-41, 43-59.

90. The effect of this phenomenon can be even more insidious. Not only may the patient have an Uncle Harry, but the doctor may well be more likely to tell the patient about specific examples. After all, the doctor's choice of information to transmit to the patient may also be influenced by the availability heuristic. Thus, specific idiosyncratic examples may more readily come to her mind than duller empirical data.

91. Some commentators have suggested that the decision-making processes described in this section, although appearing irrational, actually reflect "alternative rationalities." See, e.g., March, *Bounded Rationality, Ambiguity and the Engineering of Choice*, 9 BELL J. ECON. 587 (1978). For a discussion of these commentators' theories, see Gillette, *Commercial Rationality and the Duty to Adjust Long Term Contracts*, 69 MINN. L. REV. 521, 540-46 (1985). We take no position on this debate. For our purposes, the important point is that decision making is subject to broad variation as a result of these phenomena, whether labeled rational or not. The unpredictability, not the logic, is of concern here.

Decision theory literature continues to investigate the way information is processed in a variety of circumstances. None of the recent studies challenge the thesis that the decision heuristics set forth herein simply render the decision causation issue too speculative for litigation. Viscusi, Magot & Huber, *Informational Regulation of Consumer Health Risks: An Empirical Evaluation of Hazard Warnings*, 17 RAND J. ECON. 351 (1986), concludes that the extent to which consumers take precautions is consistent with the level of risk indicated on a label, the amount of risk information, the specificity of the risk and the precaution indicated, and the economic benefits of safety precautions. This study, aimed at testing the efficiency of warning labels for cleaning and drain-opening agents,

informed consent cases is, essentially, "What would the patient have done if presented with the unrepresented information?" If we cannot even tell whether the patient would have correctly incorporated the additional information into implicit probabilistic judgments concerning the decision, how can we confidently state what decision the patient would have made based on that judgment?⁹²

B. Manner of Presentation

As we have seen, the legal system's ability to reconstruct accurately the patient's decision-making process which would have occurred had the doctor presented additional information is frustrated by patients' frequent inability to incorporate such information in a predictable manner. Further, not only what information is presented, but the manner in which it is presented, has a dramatic effect on decisions.⁹³ The following examples illustrate two versions of this phenomenon.

1. Framing Effects

Everyone knows that "half-empty" and "half-full" have different connotations. Similarly, in many circumstances, descriptions of the risks of a medical procedure in terms of the chances of success or the chances of failure may have different connotations and lead to different decisions.

For example, consider the following problems presented to two groups of subjects by Professors Kahneman and Tversky.⁹⁴ In the first problem, seventy subjects were told that, in addition to whatever they own, they have been presented with \$1000. The subjects were then asked to choose between (a) a 50% chance of an additional \$1000, and (b) a 100% chance of an additional \$500. In the second problem, sixty-eight subjects were told that, in addition to whatever they own, they have been presented with \$2000; they were then asked to choose between (a) a 50% chance of losing \$1000, and (b) a 100% chance of losing \$500.

concludes that consumers process risk information consistent with the main predictions of an economic model of rational behavior. The conclusions have no relevance to our thesis since hazard warnings are clearly risk reduction warnings in which the appropriate consumer behavior is clear. The very essence of the informed choice context, by contrast, is that no correct choice exists. See *supra* text accompanying notes 35-39.

In an interesting study, the author questions the applicability of the findings of Kahneman & Tversky and others concerning irrationality of individual decision makers to market decisions produced by the concurrent and repeated decisions of many actors. Camerer, *Do Biases in Probability Judgment Matter in Markets? Experimental Evidence*, 77 AM. ECON. REV. 981 (1987). While interesting, this study is also inapposite. Decision making in the informed choice context is a solitary, one-time-only process bearing little relationship to repeated, collective choice.

92. See R. COOTER & T. ULEN, *LAW AND ECONOMICS* 417 (1988).

93. See generally Silva & Sorrell, *Enhancing Comprehension of Information for Informed Consent: A Review of Empirical Research*, IRB: A REVIEW OF HUMAN SUBJECTS RESEARCH, Jan.-Feb. 1988, at 1, 3-4.

94. Kahneman & Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 *ECONOMETRICA* 263, 273 (1979); see also Quattrone & Tversky, *Contrasting Rational and Psychological Analyses of Political Choice*, 82 AM. POL. SCI. REV. 719 (1988).

A moment's reflection will reveal that the two problems are identical. In both problems, the subjects were asked to choose between (a) a gamble in which they had an even chance of ending up with either \$1000 or \$2000, and (b) a sure \$1500. Yet the preferences expressed by the two groups of subjects were far from identical. In the first problem, 84% of the subjects selected the sure \$1500 (\$500 in addition to the original \$1000); 16% chose the gamble. In the second problem, however, only 31% chose the sure \$1500 (\$2000 minus \$500); 69% chose the gamble.⁹⁵

Professors Kahneman and Tversky theorize that the explanation for the disparity between the two groups of subjects is that "people normally perceive outcomes as gains or losses, rather than as final states of wealth or welfare."⁹⁶ Quite obviously, then, whether the risks of a medical procedure are framed as gains or losses could have a significant impact on the patient's choice.

An example of the framing phenomenon in the medical decision-making context is provided in a study by Professors McNeil, Pauker, Sox, and Tversky.⁹⁷ The researchers asked subjects to imagine that they had lung cancer and to choose between surgery and radiation treatment based on the information presented to them. Identical outcomes were framed differently for different subjects: they told some subjects the range of possible outcomes in terms of the probability of living at various points (e.g., 68% chance of living for more than one year), while they told others the range of possible outcomes in terms of the probability of dying (e.g., 32% chance of dying by the end of one year).⁹⁸

The framing of the various results in terms of survival or mortality had a significant impact. On the average, subjects preferred radiation therapy to surgery 42% of the time when the information was presented in terms of the probability of dying, but only 25% of the time when information was presented in terms of the probability of living.⁹⁹ One can easily imagine similar examples where the outcomes of alternative treatment options could be framed in terms of either success or failure. The empirical evidence indicates that framing would probably affect the decision. Thus, to hypothesize what decision a patient would have made if provided with additional information—as we must if we are to determine decision causation—is highly conjectural unless we are sure how the information would have been framed. Attempting to cure this prob-

95. Kahneman & Tversky, *supra* note 94, at 273.

96. *Id.* at 274; see also Tversky & Kahneman, *Rational Choice and the Framing of Decisions*, 59 J. BUS. S251 (1986).

97. McNeil, Pauker, Sox & Tversky, *On the Elicitation of Preferences for Alternative Therapies*, 306 NEW ENG. J. MED. 1259 (1982) [hereinafter McNeil]; Tversky & Kahneman, *The Framing of Decisions and the Psychology of Choice*, 211 SCIENCE 453 (1981).

98. The researchers also studied the effects of two other differences in the way alternative treatments were presented—whether the information was presented in terms of life expectancy or cumulative probability of living or dying, and whether the alternative treatments were identified or not. McNeil, *supra* note 97, at 1259-60.

99. *Id.* at 1261.

lem by imposing upon doctors a duty to present information only in a positive or negative way would, of course, be absurd.

2. *Anchoring and Primacy*

Closely related to framing effects in decision making are the effects flowing from the order of information processing by the decision maker. The route one follows from an initial belief through the forest of additional information depends on one's starting point and the sequence in which the information is received.

That the order in which information is received has an effect on decision making is not surprising. From kindergarten to first date to initial job interview, we are constantly cautioned to "put your best foot forward" and "make a good impression." That we believe this folk wisdom is borne out by simple observation. Children's faces, for example, are never quite as clean as they are on the first day of school. Similarly, one need not be clairvoyant to determine which days interviewers are present at a law school; the normally relaxed student attire gives way to the formal dress code of Wall Street.

This widespread belief in the importance of first impressions has been confirmed by psychological research. A decision maker responds to the data before him in a sequential fashion; it is eaten and digested piecemeal. The taste left by the first bite affects the perception of the entire meal. Two related sets of observations about cognitive analysis will illustrate this.

a. *Anchoring*

People tend to make estimates by starting from an initial value that is adjusted as a result of the receipt of subsequent information to reach a final estimate.¹⁰⁰ One's final estimate of a quantity depends significantly on the initial information presented, because adjustments from that starting point tend to be insufficient.¹⁰¹ "That is, different starting points yield different estimates which are biased toward the initial values."¹⁰² This concept is known as "anchoring."

Kahneman and Tversky have presented two well-known examples of this phenomenon.¹⁰³ In the first, subjects were asked to estimate various quantities (such as the percentage of African nations in the United

100. See Tversky & Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 73, ch. 1, at 14. Indeed, Bayes' theorem is itself a theoretical statement of how probability estimates should be adjusted on the basis of new information. See, e.g., T. WONNACOTT & R. WONNACOTT, *supra* note 76, at 542.

101. Tversky & Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 73, ch. 1, at 14; see also Einhorn & Hogarth, *Ambiguity and Uncertainty in Probabilistic Inference*, 92 PSYCHOLOGICAL REV. 433, 436-39 (1985).

102. Tversky & Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in JUDGMENT UNDER UNCERTAINTY, *supra* note 73, ch. 1, at 14.

103. *Id.* at 14-15.

Nations) in terms of percentages. However, the estimate was made in an unusual manner. First, a wheel of fortune with the numbers zero to one hundred was spun in the subject's presence to select a number. Second, the subject was asked whether the number chosen by the wheel of fortune was lower or higher than the percentage to be estimated. Third, the subject gave a numerical estimate of the quantity in question. The anchoring effect was clear: the subjects' estimates depended heavily on the number selected by the wheel of fortune. For example, the median estimate of the percentage of African nations in the United Nations was 25% for subjects that received 10% as the starting point, but 45% for groups that received 65% as the starting point.¹⁰⁴

In their second example,¹⁰⁵ Kahneman and Tversky asked two groups of high school students to estimate, within five seconds, the value of a numerical expression written on the blackboard. One group estimated the value of:

$$8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1,$$

while the other group estimated the value of:

$$1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8.$$

Both products are, of course, the same. Yet the median estimate for the first sequence was 2250, while the median estimate for the second sequence was 512.¹⁰⁶ Clearly, the initial numbers influenced the estimate; those subjects whose sequences began with low numbers made lower estimates than those whose sequences began with higher numbers.

b. Primacy

Closely related to anchoring is the so-called primacy effect. Solomon Asch provides a good example of this effect.¹⁰⁷ Asch presented subjects with a series of adjectives describing a hypothetical person and then asked the subjects to evaluate the person. The adjectives were "intelligent," "industrious," "impulsive," "critical," "stubborn," and "envious." He gave some subjects the favorable adjectives first, while he gave others the unfavorable adjectives first. The hypothetical person was evaluated more positively by subjects who were first given the favorable adjectives than by those given the unfavorable adjectives first. While scholars disagree over the psychological mechanism accounting for this effect,¹⁰⁸ the conclusion that, in forming impressions, early information predominates over later information is not subject to serious question.

104. *Id.* at 14.

105. *Id.* at 15.

106. *Id.* The correct answer is 40,320.

107. Asch, *Forming Impressions of Personality*, 41 *J. ABNORMAL SOC. PSYCHOLOGY* 258-90 (1946).

108. See R. NISBETT & L. ROSS, *supra* note 78, at 173-74.

Indeed, the primacy effect is so powerful that it demonstrably survives not only the introduction of new evidence, but also the total discrediting of the information forming the basis of the initial reaction.

The potential effects of the anchoring and primacy phenomena in medical decision making are obvious. A patient who is first told the benefits of a proposed procedure and then told its risks is likely to have a more positive response to that procedure than one who is first told the risks and then the benefits. There is a big difference in perception between "Joe, there's an operation that can cure you completely—of course, it carries serious risks . . ." and "Joe, I am recommending to you a very risky operation, but if it succeeds you'll be completely cured . . ."

The impact of the primacy effect is that, in trying to determine the likely effect of missing risk information on a decision about a recommended procedure, knowing whether that information would have been presented *before* or *after* the benefits of the procedure is critical. Can it seriously be claimed that the legal system can not only determine what effect information would have on a patient's decision, but also in what order a physician would have presented the information?

Given the framing, anchoring, and primacy effects, the hypothetical decision reconstruction required by current informed consent doctrine even more clearly is revealed as based on unsupportable inference. Not only must the fact finder hypothetically assess and reconstruct the patient's logic and rationality in processing the missing information, the fact finder must also hypothesize the manner in which the information would, have been presented. The manner in which the information would have been presented is extremely important,¹⁰⁹ yet inherently unknowable.

Thus, unless the law is prepared to address not only what information the doctor must disclose, but also how and in what manner the information is disclosed, the law cannot honestly answer the decision causation question. An honest answer requires either an unlikely finding

109. The role of information sequencing is important not only with regard to the impact that prior information has on the decision maker, but also because it may cause varying degrees of commitment to a particular decision. The role of commitment as a decision heuristic is thoroughly explored in I. JANIS & L. MANN, *DECISION MAKING: A PSYCHOLOGICAL ANALYSIS OF CONFLICT, CHOICE, AND COMMITMENT* 279-308 (1977). One form of partial commitment has been dubbed the "foot-in-the-door" technique. For example, a doctor may encourage a patient to make a particular decision by acquiring the patient's consent on a series of minor decisions which are preparation for the desired final decision. The small preparatory decisions, in and of themselves, do not formally commit the patient to a final decision, but psychologically, the patient becomes committed to the particular course of action. Blood tests, X rays, or other sophisticated and expensive diagnostic tests (e.g., CAT scans or angiograms) may cause partial commitments to a surgical procedure. Information the patient receives after such partial commitments have been made is likely to be far less potent than information received at an earlier stage of decision making. See *id.* at 291-95; Freedman & Fraser, *Compliance Without Pressure: The Foot-In-The-Door Technique*, 4 J. PERSONALITY & SOC. PSYCHOLOGY 195 (1966); Thompson, *Psychological Issues in Informed Consent*, in 3 *MAKING HEALTH CARE DECISIONS*, *supra* note 8, app. H, at 104-05, 113.

of how the doctor would have disclosed the omitted information or imposing an impractical duty to disclose in a particular manner.

C. *The Effect of Prior Idiosyncratic Information*

The above analyses of human decision making reveal many instances in which the patient's prior experiences and knowledge will likely affect his decision significantly. Even if the patient makes decisions in a perfectly logical manner (unlikely though that may be), the final probabilities he calculates for the risks involved in a particular procedure will depend, at least in part, on the information he had previously.¹¹⁰ Thus, a sensitive determination of the decision this precise patient would have made had the missing information been provided would require a careful analysis of the bits of information that were lurking in the recesses of his mind. The litigation process is not likely to excel at this analysis.

Moreover, patients routinely devalue quite probative, but dry, collective information, such as base rates, in favor of less probative, but more memorable, anecdotes. This increases the importance of uncovering those anecdotes in determining how a patient would have decided. Does the patient have an Uncle Harry who faced a similar decision? Has the patient faced a similar decision before? Did the patient see a memorable motion picture about the disease? The patient's base of information and impressions is of critical importance in making his decisions—logically or illogically.

D. *The Psychiatric Dimension*

The justiciability of the causation issue is further compromised by the inability of courts to account for a broad range of psychiatric factors which help shape decision making. In his important work, *The Silent World of Doctor and Patient*, Professor Jay Katz argues that a significant impediment to autonomous decision making is the failure of doctor and patient to account for subtle but powerful influences that affect their interaction.¹¹¹ Katz notes that, early in his work with patients, Freud observed the development of an "intense emotional relationship between the patient and analyst which [cannot] be accounted for by the actual situation."¹¹² Freud labelled this phenomenon "transference," meaning that patients have a decided proclivity to "endow their analyst with many of the characteristics of their earliest caretakers rather than to view the analyst solely as who he is."¹¹³

110. Final probabilities are determined by combining prior information (and the concomitant probabilities) with new information. See generally T. WONNACOTT & R. WONNACOTT, *supra* note 76, at 542.

111. See J. KATZ, *THE SILENT WORLD OF DOCTOR AND PATIENT* chs. V-VI (1984).

112. *Id.* at 142 (quoting from S. FREUD, *An Autobiographical Study*, in 20 STANDARD EDITION OF THE COMPLETE PSYCHOLOGICAL WORKS OF SIGMUND FREUD 42 (1959)).

113. *Id.*

Katz believes that the implications of the transference phenomenon for informed consent are profound. Transference feelings, he argues, "become more intense when persons are ill and beset by fear and anxieties."¹¹⁴ Regression to infantile hopes and fears are a common response to such stress, and thus, opens the patient to viewing the doctor as parent-caretaker rather than merely as healer.¹¹⁵ Unless patients are forced to recognize and confront transference, they are prone to unwarranted acceptance of the doctor's recommended decisions. Katz cautions physicians to help patients deal with them in a more realistic fashion. Yet, he admits that "[t]ransference manifestations . . . cannot be eliminated; they can only be attenuated."¹¹⁶

Transference is, of course, only one of a multitude of interpersonal psychological factors which give content to the complex doctor-patient relationship.¹¹⁷ The presence of such complex factors adds to our considerable doubt about the justiciability of the decision causation issue. As noted earlier, this issue requires a fact finder to determine whether the patient would have agreed to the therapeutic intervention had he been given the additional information which the law demands. If the special relationship between doctor and patient profoundly influences whether the patient imbues the doctor's recommendation with significance well above its objective content, then the decision causation question is even further compromised.

It is not only possible, but quite probable, that additional information would have been nondeterminative as to patient choice. If transference cannot be eliminated, then we must now add it to our list of decision heuristics.¹¹⁸ To litigate decision causation without facing the psycho-

114. *Id.* at 143.

115. *Id.*

116. *Id.* at 145.

117. *Id.* at 114-21. Others have described how decision makers in high conflict situations engage in defensive avoidance of information which will interfere with a tentative decision. I. JANIS & L. MANN, *supra* note 109, at 83-84, 205. The authors further note that when faced with such high conflict decisions, the decision maker exhibits a significant tendency to shift responsibility to other decision makers (herein the physician). *Id.* at 87, 205. The sharper the conflict, the greater the likelihood the patient will resolve the tension by shifting responsibility as a means of dealing with the tensions.

118. This discussion presumes that courts would be prepared to impose a duty on a physician to reduce the transference phenomenon and transform patients into more responsible choice makers. Katz asserts that a physician must take the initiative in addressing this problem:

Physicians need to appreciate that they are not only the victims of these transferences but also their abettors. Because they have been as blind to the existence of transference as their patients, doctors have encouraged and augmented patients' transference feelings by unwittingly promising more than they can deliver or by not confronting their patients' explicit and implicit unrealistic expectations. A greater awareness by both parties of the power of transference and the obligation to contain its power are essential preconditions for conversation. Initially, this obligation must be assumed by professionals rather than by their patients. Patients can only learn of the power of transference over time and through personal experiences with aware physicians who educate them about its manifestations.

The phenomenon of transference reinforces the need for formulating a concept of autonomy that takes human psychology into account. Patients' confusion between past and present,

logical realities appears outright dishonest. To include them would turn the courtroom into a theatre for the exploration of the role of nonquantifiable psychological factors in human decision making.

E. *Litigating Decision Causation*

The impact of these observations is enormous. Unquestionably, the legal system's insistence on determining the hypothetical results of a hypothetical decision-making process incorporates so much uncertainty that its credibility is minimal. Accordingly, determinations about decision causation in the informed choice arena can only be made by blinding ourselves to the complexities inherent in the process. The uncertainties are so great, and the margin for error so small, that any judgment, either way, cannot be made with any confidence.¹¹⁹ Judgments that inherently lack credibility cannot convey their desired message to society in general nor to those to whom they are directed in particular.¹²⁰

Each of the decision heuristics described above, acting separately, would significantly undermine the credibility of decision causation determinations. Acting in combination, the impact is devastating.¹²¹

present and past, parental figures and doctors, and doctors and parental figures affects autonomous functioning in significant ways. . . . Doctors must learn to distinguish themselves with greater deliberateness from parental imagoes who, in time distant, often had to issue commands rather than explanations. To so distinguish themselves, doctors must learn to acknowledge their limitations and the limitations of medicine, to be sensitive to any emergence of magical expectations in their patients, and to try to correct such expectations by explaining what an intervention can and cannot accomplish. In short, doctors must address the irrational and unconscious expectations of patients that inform the choice-making process. Such efforts will not always meet with success and, indeed, can never be totally successful. However hard one tries to be true to Rousseau's aphorism that "It is better to know one's chains than to deck them with flowers," some chains that imprison the human mind inevitably remain decked with flowers.

J. KATZ, *THE SILENT WORLD OF DOCTOR AND PATIENT* 144-47 (1984) (footnote omitted) (quoting from I. BERLIN, *FOUR ESSAYS ON LIBERTY* xxxix (1969)).

No court has recognized such a duty nor does Katz suggest that transference reduction be recognized by the courts. We only suggest that even if a court were to recognize such a duty, it would create causation and valuation problems that would be nonjusticiable.

119. See Cohen, *Confidence in Probability: Burdens of Persuasion in a World of Imperfect Knowledge*, 60 N.Y.U. L. REV. 385 (1985). In these decisions, the confidence interval surrounding the legal system's determination of the likelihood of decision causation will almost certainly straddle 50%, with the result that a decision either way is within the determination's margin of error. See *id.* at 404; see also I. JANIS & L. MANN, *supra* note 109, at 204, 213; Einhorn & Hogarth, *Decision Making Under Ambiguity*, 59 J. BUS. S225 (1986); Einhorn & Hogarth, *Ambiguity and Uncertainty in Probabilistic Inference*, 92 PSYCHOLOGICAL REV. 433 (1985).

120. Such legal decisions, even if they are accurate, are unacceptable and ought to be avoided. See generally Nesson, *The Evidence or the Event? On Judicial Proof and the Acceptability of Verdicts*, 98 HARV. L. REV. 1357 (1985).

Evidence about the success of the present regime in encouraging informed consent is difficult to find. Recently, health care providers responded to a national questionnaire regarding informed consent in administration of intravenous contrast-enhanced radiography. Results of the study are reported by Spring & Aiken, *Overcoming the Ambiguities of Informed Consent Doctrine*, *DIAGNOSTIC IMAGING*, Dec. 1985, at 44. The survey indicates that two-thirds of radiologists did not inform patients of such major reactions as shock, cardiopulmonary compromise, and venal failure, even though their reactions occurred with a frequency ranging from about one in one thousand to one in three thousand. Broad disregard of the legal doctrine appears evident.

121. Courts are particularly ill-suited to resolve such highly "polycentric" problems. See generally Henderson, *supra* note 4.

The prevalence of irrational information processing is particularly troubling. If the legal standard of decision causation is the subjective (this patient) standard, the fact finder must determine how irrational this patient is, or was, at processing medical information generally. More specifically, the fact finder must determine the incremental effect of the omitted information on the rational or irrational decision-making process. Quite obviously, this inquiry into the effect of a piece of incremental information is of a sort which the legal system rarely attempts. As demonstrated by the studies discussed above, the legal system has questionable competence for such an inquiry.

If the standard of decision causation is objective (reasonable patient), the problems are even more daunting. Clearly, the reasonable person (at least if that mythical creature is modeled on actual, accepted human behavior) is not an objectively "rational" decision maker. Therefore, we cannot assume that the reasonable patient would have acted rationally. Yet, the irrationality that would attend a decision made by a *reasonable* patient cannot easily be quantified or predicted. How would a reasonable patient act? Reasonably irrationally? Unless this question can be answered, the objective standard of causation lacks all credibility.¹²²

Even if the legal system were to assume that patients would have processed omitted information in a logically coherent manner (regardless of whether such an assumption is justified), other heuristics, identified above, make hypothetical reconstruction of the decision-making process highly speculative. The manner of presentation is of critical importance in determining what effect information would have had. Yet, any statement of how the information would have been presented is simply guesswork or supposition, unless the legal system is prepared to impose duties

122. The role of causation in tort law has been the subject of prolific debate in recent years. See, e.g., Calabresi, *Concerning Cause and the Law of Torts: An Essay for Harry Kalven, Jr.*, 43 U. CHI. L. REV. 69 (1975); Landes & Posner, *Causation in Tort Law: An Economic Approach*, 12 J. LEGAL STUD. 109 (1983); Shavell, *An Analysis of Causation and the Scope of Liability in the Law of Torts*, 9 J. LEGAL STUD. 463 (1980); Wright, *Actual Causation vs. Probabilistic Linkage: The Bane of Economic Analysis*, 14 J. LEGAL STUD. 435 (1985); *Symposium on Causation in the Law of Torts*, 63 CHI. KENT L. REV. 397 (1987). The debate as to whether the tenacious hold of causation on the law of torts is explainable utilizing efficiency criteria or depends on corrective justice notions is of considerable importance, but is of marginal relevance to this article. The unadorned fact is that causation remains a significant factor in the informed choice cases. If we are correct that the effect of multiple decision heuristics renders any decision causation finding speculative, then whatever the underlying theoretical justification for the role of causation, decision causation findings must fail in the informed choice context because they lack inherent plausibility. Nor can decision causation be rescued by passing it off as a policy-laden "fact." See, e.g., Cole, *Windfall and Probability: A Study of "Cause" in Negligence Law, Part II, Factual Uncertainty and Competitive Fairness*, 52 CALIF. L. REV. 764, 777-93 (1964); Malone, *Ruminations on Cause-in-Fact*, 9 STAN. L. REV. 60 (1956). At the very least, the policy approach requires some sense of the probabilities that the courts are granting recognition. Furthermore, as Professor Wright has demonstrated, the various policy-oriented approaches to cause-in-fact merely merge the cause-in-fact question with other policy questions, but do not remove the difficult cause question from the picture. Wright, *Causation in Tort Law*, 73 CALIF. L. REV. 1735, 1741-45 (1985). The narrow range of the informed choice cases and the multiple decision heuristics render the decision causation inquiry almost valueless.

not only with respect to what information doctors must present to patients, but also how doctors must present that information.¹²³ Similarly, unless we can expose the base on which the omitted information would have rested, determination of its effect is clouded. Finally, the interpersonal dimension of the doctor-patient relationship not only has independent significance, but also affects the patient's evaluation of information.

One might be tempted to defend the current approach to litigating decision causation in informed consent cases by observing that all fact reconstruction is subject to uncertainty. After all, in addition to the cases that courts can clearly resolve one way or the other, some cases will always be too close to call. Usually, we do not allow the specter of the uncertain cases to undermine the credibility of those that are clear. Yet, the context of informed consent litigation is significantly different from the prototypical lawsuit because the easy cases are filtered out before they reach the decision causation issue.

In cases where the omitted information clearly would not have affected the patient's (or a reasonable patient's) decision, the omitted information usually will not meet the materiality requirement and, therefore, the doctor did not violate a duty by failing to disclose it. On the other extreme, in cases in which the omitted information clearly would have led this patient (or a reasonable patient) to decline the recommended procedure, the doctor's recommendation of the procedure likely was malpractice. These filters screen out most of the easy cases before it is necessary to resolve the decision causation issue. The bulk of cases in which the decision causation issue is relevant, then, are the hard cases—those in which the omitted information was material, but the recommended procedure was reasonable. In these difficult cases, the tenuous, speculative nature of decision reconstruction is an acute problem.¹²⁴

123. If the legal system were to take the unlikely step of mandating the manner and order of presentation of relevant information, the proof problems attending claims of breach of this duty would be enormous. Not only would the fact finder have to determine what items of information were communicated from doctor to patient, but also the manner and order in which the items were communicated.

124. This paper has not touched upon such issues as whether patients understand the information given to them, whether they are able to recall that information accurately when a decision has to be made, or whether elements of coercion are present that limit the voluntariness of decision making. Considerable empirical research has focused upon each of these areas. For a comprehensive analysis of the empirical studies done on informed consent, see Meisel & Roth, *Toward an Informed Discussion of Informed Consent: A Review and Critique of the Empirical Studies*, 25 ARIZ. L. REV. 265 (1983). The various studies dealing with each of the aforementioned areas raise questions in their own right as to the efficacy of the decision causation issue. This article has focused solely on the decision-making process as it relates to causation. We have assumed accurate understanding and recall of information on the part of the patient, and that he is uncoerced. Obviously, the extent to which any of the above hypotheses are untrue even further compromises the decision causation issue.

Given the enormity of the empirical literature dealing with informed consent, little in the way of reliable studies sheds light on the relationship between information and decision causation. Several investigators found little correlation between detailed disclosure of risk and patient refusal to undertake a diagnostic test or therapeutic procedure. Alfid, *Informed Consent: A Study of Patient Reaction*, 216 J. A.M.A. 1325, 1328 (1971); Leydecker, Gramer & Kriegelstein, *Patient Information Before Cataract Surgery*, 180 OPHTHALMOLOGICA, BASEL 241 (1980). Contrary results were re-

In this context, note that the uncertainties identified in this article concern only one of the links in the causal chain connecting the missing information to the patient's injury. This article has focused on the decision causation¹²⁵ link—demonstrating that the lack of information caused the patient to decide to go forward with the procedure. The other link in the causal chain, injury causation,¹²⁶ is also critical to an informed consent claim. Unless the procedure caused the patient's injury, the lack of information did not cause the injury. As Shultz and others have shown, however, injury causation is not simple either.¹²⁷ The possible effects of doing nothing, performing the recommended procedure, or performing an alternative procedure present a complex probabilistic tableau that one must fully explore to conclude that injury causation is present.¹²⁸

Clearly, in the close-case context of informed consent litigation, one cannot credibly demonstrate decision causation.¹²⁹ Under traditional

ported in a study by Rosenberg, *Informed Consent: A Reappraisal of Patients' Reactions*, CAL. MED., Nov. 1973, at 64, 67 (in an experimentally designed study, 50% of subjects would have refused the procedure because of risks of which they had been informed). Faden & Beauchamp, *Decision Making and Informed Consent: A Study of the Impact of Disclosed Information*, 7 SOC. INDICATORS RES. 313, 326 (1980), explicitly sought to study the causal relationship between decisions and disclosed information concerning nonsurgical contraceptive techniques and found no evidence that the patients based their decisions on information about the techniques.

Professors Meisel and Roth conclude that most studies are seriously wanting because they do not separate the numerous variables that could affect decision making. They believe that the actual relationship between information and causation is "probably far more complex than the simple linear relationships hypothesized and tested in these studies." Meisel & Roth, *supra*, at 324.

Given the multiplicity of decision heuristics discussed herein, how one would construct a research protocol that could test for all the subtle interactions is difficult to imagine. Moreover, the studies that plumb the existence of a relationship between information and decision making are inapposite to the thesis we present. We do not seek to demonstrate the lack of connection between information and decision making; rather, that the relationship is complex, idiosyncratic, and hence, unpredictable. Our position, therefore, is that for courts to seek to measure the effect of an additional increment of information on an individual patient's decision is folly.

125. See *supra* text accompanying note 38.

126. See *supra* text accompanying note 39.

127. See Shultz, *supra* note 8, at 251, 259.

128. *Id.* Professor Richard Epstein has made this point with particular clarity. After presenting the dual causation issues that attend all informed consent cases, he argues:

The complications involved in applying the doctrine are both great and unavoidable. The possibility of its incorrect application is quite substantial. In the context of any given trial the plaintiff will only win, if he wins at all, if all manner of doubtful inferences on questions of fact, particularly of causation, are made in his behalf. Indeed the difficulty with this cause of action becomes apparent once it is recalled that the plaintiff must show that the preponderance of evidence supports his entire cause of action. It is (or should be) quite insufficient for him to demonstrate that he is 51 percent right with respect to each of the individual elements of his *prima facie* case; if that is the extent of his proof, then the probabilities of establishing the case as a whole are well below what is required.

Epstein, *supra* note 29, at 125-26. While we agree with Professor Epstein that the entire case must be supported by the preponderance of the evidence, significant debate on this point exists. See, e.g., Cohen, *The Logic of Proof*, 1980 CRIM. L. REV. 91; Williams, *The Mathematics of Proof—I*, 1979 CRIM. L. REV. 297.

129. Yet another reason that informed consent cases tend to create too-close-to-call causation questions exists. We are grateful to Professor Richard Epstein for pointing out to us that today, the case is rare where no information has been given to the patient. Such cases were common only before the informed consent doctrine came on the scene. Today, as a matter of routine practice,

models of tort litigation, this would be fatal to the patient's case under any theory for which decision causation is an essential link.¹³⁰

Yet, in some other contexts, the legal system has been willing to allow plaintiffs deprived of material information to recover damages flowing from a decision without proof that the missing information caused the decision. In the securities law area, for example, demonstrating the existence of a material misstatement or omission in proxy materials is sufficient for a stockholder to challenge successfully the results of the stockholder vote—causation is presumed from materiality.¹³¹ Similarly, when a securities fraud violation under section 10(b) of the Securities Exchange Act¹³² involves a failure to disclose, courts have, in the past, held that “positive proof of reliance is not a prerequisite to recovery. All that is necessary is that the facts withheld be material”¹³³

Should patients making informed consent claims similarly benefit from such a conclusive presumption of decision causation? Although such suggestions are extant,¹³⁴ we advise against such a move. First, the impact of such a radical change would be staggering. If causation were conclusively presumed, patients with unfortunate medical outcomes would be able to recover damages for the harm resulting from those outcomes each and every time the doctor failed to disclose material information, even though the outcome followed a procedure that was reasonably recommended and reasonably performed. Also, the plaintiff would have to put forth absolutely no showing that anyone who knew all the facts would have decided differently.

Second, the context of informed consent litigation should be remembered. Informed consent doctrine is, in many ways, an overlay on the canvas of malpractice law. Egregious medical conduct can usually be remedied in a malpractice case in which an informed consent claim would be superfluous. If a doctor induces a patient to agree to an unrea-

some information is given to the patient. Most often, the question is whether it was explicit or extensive enough. Thus the causation question must ask whether the desired additional information would have changed the patient's decision. Professor Epstein notes that this problem has arisen in some of the informed choice drug cases. See, e.g., *MacDonald v. Ortho Pharmaceutical Corp.*, 394 Mass. 131, 475 N.E.2d 65, cert. denied, 474 U.S. 920 (1985). In this case, the defendant warned that life-threatening blood clots might result from use of birth control pills. The defendant did not specifically mention that use of the pill could cause a “stroke.” Thus, the causation issue focuses on a very small increment of information.

130. See, e.g., *PROSSER & KEATON*, *supra* note 8, § 41.

131. *See Mills v. Electric Auto-Lite Co.*, 396 U.S. 375 (1970); cf. *Riskin*, *supra* note 15, at 605 nn.127, 136.

132. 15 U.S.C. § 78j(b) (1982).

133. *Affiliated Ute Citizens v. United States*, 406 U.S. 128, 153-54 (1972). *But see* *Gaines v. Houghton*, 645 F.2d 761, 775 (9th Cir. 1981), cert. denied, 454 U.S. 1145 (1982); *Zweig v. Hearst Corp.*, 594 F.2d 1261, 1271-72 (9th Cir. 1979) (Ely, J., dissenting).

134. *Riskin*, *supra* note 15, at 603. Rosenthal suggests a standard which effectively eliminates causation as a limiting factor in informed consent. He says that “[a] better standard of both materiality and causation would be full disclosure of all of the perils and burdens involved in a course of professional action, so long as, in the jury's judgment, a prudent person might have decided differently if full disclosure had been made.” D. ROSENTHAL, *LAWYER AND CLIENT: WHO'S IN CHARGE?* 156 (1974) (emphasis added).

sonable procedure without full disclosure of the material risks, for example, the patient does not need an informed consent action in order to recover against the doctor for injuries flowing from the procedure. Recommending the procedure was, itself, malpractice.

In the securities area, however, no doctrine serves the function of malpractice law; a tort of negligently recommending an ill-advised transaction does not exist.¹³⁵ In the securities context, the only way to recover against the party who fails to disclose material information concerning a decision that later backfires is through a securities fraud or proxy violation action. If such an action fails because of the difficulties of proving causation, the nondiscloser goes free, no matter how outrageous or ill-advised the transaction. Thus, the presumption of causation serves a useful function in the securities area. The existence of malpractice doctrine, however, largely obviates the need to gloss over decision causation in the informed consent area; malpractice damages can deter recommendations of bad medical procedure without resorting to informed consent theories and presumed decisions.

In the area of products liability informed consent, a compromise of sorts has developed in many states. While decision causation is an element of the action, decision causation is presumed, but rebuttably.¹³⁶ Thus, at least the burden of producing evidence of a lack of decision causation is on the defendant. We believe that no convincing reasons for extending this presumption to medical informed consent cases exist.

First, the patient can be adequately protected against unreasonable medical practice without shifting the decision causation burden. For botched procedures and treatment plans, malpractice doctrine serves well. For informed consent cases not involving malpractice, the patient, as we shall demonstrate,¹³⁷ should be entitled to significant damages for injury to process and dignitary rights. In products liability, however, the process and dignitary rights, to the extent that they exist, must be much less valuable than in the medical area. Accordingly, only proof of decision causation and resulting injury can produce any substantial payoff for plaintiffs and, therefore, deter defendants from failing to disclose product risks.

Second, product manufacturers have a clear profit motive to induce consumers to buy their products, even by failing to disclose risks. While doctors may well profit more from performing a procedure than not performing it, they are paid for their time and services in any event, and thus, may have less of an economic motive to induce patients to choose one procedure over another.¹³⁸ Therefore, shifting the decision causation burden in the products liability informed consent cases prompts defend-

135. Such an act, done intentionally, however, might constitute a violation of § 10(b). See generally L. LOSS, *FUNDAMENTALS OF SECURITIES REGULATION* chs. 9-10 (1988).

136. See cases cited *supra* note 66.

137. See *infra* text accompanying notes 141-93.

138. But see Shultz, *supra* note 8, at 257 & n.153.

ants to alter an economic bias that probably has lesser influence in the medical area.

Third, the decision to warn or not to warn with respect to a product risk is very different than with respect to a medical procedure risk. The product manufacturer decides whether to warn a large, indeterminate class of people, many of whom will never come forward, even if they suffer adverse consequences. The doctor, however, decides whether to warn an individual in a one-on-one interaction about a unique problem where the doctor's relationship with the patient is suffused with duties.

Finally, the considerations set forth above concerning people's abilities to process information raise serious questions as to the appropriateness of the rebuttable presumption even in the products liability cases.¹³⁹ For the most part, informed choice products liability cases involve drugs or vaccines, and patients must evaluate very remote risks. In such contexts, patients must evaluate and integrate data similar to that in classic medical informed consent litigation. Likewise, the doctrines of materiality and strict liability filter out the easy cases, so decision causation inquiries are only made in the most difficult products liability cases. Abandoning the decision causation question and honestly recognizing its nonjusticiability has merit in products liability informed choice cases as well as medical informed consent cases.

Nevertheless, courts are unwilling to impose informed choice liability (in either products or medical contexts) without satisfying themselves that decision causation is sufficiently established. But the courts cannot practically and honestly attain that which they theoretically believe the plaintiff must establish before they can award substantial damages. Using decision causation as the pivotal doctrine for the establishment of liability in a milieu consisting entirely of close-call cases is even more troubling. As noted, the twin doctrines of malpractice (or strict liability) and materiality exclude the gross cases from informed choice litigation.¹⁴⁰ Causation is a sensible screening device when it operates to reject large numbers of clearly unworthy cases. Decision causation plays no such role in informed consent litigation. In this context, decision causation operates exclusively on cases in which its error rate is significant. When we add to the inherent error rate of close cases the decision-making errors identified above, little reason justifies the use of decision causation in informed consent litigation.

How, then, should the legal system deal with the decision causation

139. *But see* Schwartz, *Directions in Contemporary Products Liability Scholarship*, 14 J. LEGAL STUD. 763, 776 (1985), arguing that the ability of manufacturers to more completely control the framing of information presented to the consumer warrants a greater burden of proof on manufacturers. Notably, however, in a products liability case, unlike a medical informed consent case, establishing what information was actually communicated and in what manner is not difficult. Therefore, one of the concerns in malpractice litigation—determining what information was actually communicated and in what manner—is clearly not present in the informed choice warnings cases.

140. *See supra* text accompanying notes 35-40.

problem? The answer is not simple. One of us, Twerski, believes that the cost to the legal system from the indeterminacy of decision causation in the vast majority of nontrivial informed consent cases greatly outweighs the benefits from those few cases in which the plaintiff can credibly demonstrate the causal link. Accordingly, Twerski would declare the issue of decision causation in informed consent situations nonjusticiable and, thereby, reject any legal claim that requires demonstrating decision causation. Cohen agrees with Twerski's cost-benefit calculus, but would leave the door slightly ajar for the rare case in which the plaintiff can credibly demonstrate decision causation. We both agree, however, that in the bulk of cases in which the claim is that omitted material information would have changed a plaintiff's decision, the plaintiff cannot prevail. Thus, because the personal injury model of informed consent litigation depends on proof of decision causation, we must either abandon or severely curtail this model.

IV. THE VALUING OF PROCESS

The abandonment or curtailment of the personal injury model for informed choice might appear to create a significant void that potentially could undercut, if not obliterate, the salutary developments of the last two decades which have imposed responsibilities on physicians and manufacturers to share information with their patients and customers. If decision causation is nonjusticiable, and the plaintiff cannot lay subsequent personal injuries at the doorstep of the defendant who failed to provide the desired information, informed choice emerges as a sanctionless tort. Admittedly, nominal damages could vindicate a pure dignitary right, but they would not likely encourage information sharing. Thus, where the personal injury model may suffer from overinflated damages resulting from unrealistic conclusions about decision causation, a dignitary rights model might suffer from serious undervaluation because of the tradition of valuing such rights minimally.

The feast or famine dimension that characterizes existing tort models is no mere accident of fate. The polarity is a product of a myopic view of the values implicated in informed choice cases. Currently both models perceive choice decisions from a static rather than a dynamic perspective. The plaintiff's decision is viewed as a *res* of sorts. Given a failure to provide information, the question for the courts is how much value should be assigned to the lost decision. Given the *de minimis* recovery under the dignitary rights model, it is not surprising that the courts have chosen the seriously flawed personal injury model. To be sure, informed choice includes both personal injury and dignitary rights aspects, but neither adequately describes the gravamen of the harm the defendant inflicts. Only by substantially recasting the essence of the cause of action will the courts develop a structure sensitive to the true damages inflicted when choice is curtailed or effectively eliminated.

Informed choice is, first and foremost, a *process* right. It reflects process values in two important ways. First, informed choice protects the right of the patient or consumer to evaluate all material information in making decisions. The ultimate decision that the plaintiff would have reached had he been fully informed is not the focus here. Rather, the exclusion of the plaintiff from the deliberative decision-making process lies at the heart of the cause of action. To properly assess damages for the deprivation of the right to deliberate and participate in decision making, one must examine how the law has valued process rights in analogous contexts. Second, decision making is rarely a single event. It is most often an ongoing process, with its own peaks and valleys and points of indeterminacy before the final decision. This process possesses a dynamism all its own. The single-minded focus on valuing decision outcome has diverted attention from the significance of decision input. When viewed as a dynamic process, informed choice rights are far from trivial and can be independently valued.

A. Constitutional Analogies

Valuing process rights has a long history in actions under 42 U.S.C. § 1983¹⁴¹ alleging deprivation of civil rights under color of state law. For many decades, courts have permitted juries to evaluate violations of these process rights and assign significant damages to them.¹⁴²

Judicial scrutiny has focused upon two categories of process rights. In the first category, the plaintiff has been denied access to a forum designed to insure that a substantive right is not unjustly denied. The prototype of this cause of action is the now celebrated *Carey v. Piphus*¹⁴³ decision, where students who had allegedly violated school rules sued school board members for suspending them from school without grant-

141. In 1871, Congress created a cause of action to redress the violation of constitutional rights by persons acting under color of state law. Civil Rights Act of 1871, ch. 22, § 1, 17 Stat. 13 (now codified with minor modification in 42 U.S.C. § 1983 (1982)). In its present form it reads:

Every person who, under color of any statute, ordinance, regulation, custom, or usage, of any State or Territory or the District of Columbia, subjects, or causes to be subjected, any citizen of the United States or other person within the jurisdiction thereof to the deprivation of any rights, privileges, or immunities secured by the Constitution and laws, shall be liable to the party injured in an action at law, suit in equity, or other proper proceeding for redress. For the purposes of this section, any Act of Congress applicable exclusively to the District of Columbia shall be considered to be a statute of the District of Columbia.

Id.

For a thorough treatment of the subject, see S. NAHMUD, *CIVIL RIGHTS AND CIVIL LIBERTIES LITIGATION: THE LAW OF SECTION 1983* (2d ed. 1986); M. SCHWARTZ & J. KIRKLIN, *SECTION 1983 LITIGATION: CLAIMS, DEFENSES AND FEES* (1986).

142. See cases cited *infra* note 146.

143. 435 U.S. 247 (1978). Litigation on a broad range of procedural due process violations is commonplace. See, e.g., *Wilson v. Taylor*, 733 F.2d 1539 (11th Cir. 1984) (discharge of a police officer without pretermination hearing entitled officer to damages); *Saxner v. Benson*, 727 F.2d 669 (7th Cir. 1984) (violation of prisoner's fifth amendment due process rights to hearing for violation of prison discipline resulting in segregation and other discomforts is compensable); *Laje v. Thomason Gen. Hosp.*, 665 F.2d 724 (5th Cir. 1982) (discharge of a doctor is authorized, but not without pretermination discharge hearing).

ing them a formal hearing prior to suspension. In *Carey*, a procedural due process right (designed to insure, inter alia, that the right to attend school was not abrogated for improper reasons nor based on insufficient evidence) protected the substantive "property" right to attend school. The second category of process rights is more substantive in nature. A plaintiff denied the right to vote in an election¹⁴⁴ or the right to free speech¹⁴⁵ complains that the state has abridged a right to become part of a decision-making process or to speak freely. In this genre of cases, substance and procedure merge into one; the process right does not exist solely to protect a separate substantive right.

Prior to *Carey v. Piphus*, a plaintiff denied process rights of either category did not have to establish a demonstrable injury to recover substantial damages.¹⁴⁶ Demonstrable injury in the form of mental distress clearly enhanced the plaintiff's claim for damages.¹⁴⁷ But courts clearly announced that the denial of the right, in and of itself, was of significant moment and could support substantial awards.

*Hostrop v. Board of Junior College District No. 515*¹⁴⁸ reflects the pre-*Carey* attitude of the courts with regard to the valuation of procedural due process rights. In that case plaintiff, a junior college president, alleged that the college board dismissed him because of views he had expressed concerning an ethnic studies program. In addition to charging a violation of first amendment freedom of speech rights, the plaintiff claimed damages because the board dismissed him without a hearing. The Seventh Circuit upheld the district court's finding that the board terminated plaintiff for just cause, not because of his constitutional exercise of first amendment rights.¹⁴⁹ The court then turned to the board's denial to the plaintiff of a pretermination hearing. Given the finding of the district court that the board dismissed plaintiff for just cause, the court concluded that it was "inconceivable that even if plaintiff had been accorded due process rights he would have been allowed to continue in office."¹⁵⁰ Thus, "[t]he wrong done plaintiff was not the termination of his employment . . . but the deprivation of his procedural due process right to notice and hearing."¹⁵¹

In its remand instructions to the lower court, the circuit court acknowledged that valuation of the procedural right was not free from diffi-

144. *Nixon v. Herndon*, 273 U.S. 536 (1927); *Wayne v. Venable*, 260 F. 64 (8th Cir. 1919).

145. *Memphis Community School Dist. v. Stachura*, 477 U.S. 299 (1986); *Burle v. Southworth*, 611 F.2d 406 (1st Cir. 1979); *Stolberg v. Members of Bd. of Trustees*, 474 F.2d 485 (2d Cir. 1973).

146. *Hostrop v. Board of Junior College Dist. No. 515*, 523 F.2d 569 (7th Cir. 1975), *cert. denied*, 425 U.S. 963 (1976); *Wayne v. Venable*, 260 F. 64 (8th Cir. 1919); *Sexton v. Gibbs*, 327 F. Supp. 134 (N.D. Tex. 1970), *aff'd*, 446 F.2d 904 (5th Cir.), *cert. denied*, 404 U.S. 1062 (1971). In *Carey v. Piphus*, 435 U.S. 247, 264 (1978), the Court took issue with the authority relied on by *Hostrop* to support substantial damages for the vindication of a due process right.

147. *Piphus v. Carey*, 545 F.2d 30, 32 (7th Cir. 1976), *rev'd*, 435 U.S. 247 (1978).

148. 523 F.2d 569 (7th Cir. 1975), *cert. denied*, 425 U.S. 963 (1976).

149. *Id.* at 573, 579.

150. *Id.* at 579.

151. *Id.*

culties.¹⁵² Damages reflecting the amount plaintiff would have been awarded had the board terminated the contract without just cause were clearly inappropriate.¹⁵³ The court had to value the procedural right for its own intrinsic worth. Citing case law dating back six decades, the court said:

Although the amount of damages for such an injury cannot be determined by reference to an objective standard, recovery of non-punitive damages for the deprivation of intangible rights for which no pecuniary loss can be shown is not without precedent. Courts have traditionally assessed such damages for tortious injury.¹⁵⁴

A year later, in *Piphus v. Carey*,¹⁵⁵ Judge Tone, the author of *Hostrop*, unmistakably and clearly announced that damages were recoverable:

even if . . . there is no proof of individualized injury to the plaintiff, such as mental distress (which, when found to have been suffered would enhance the general damages recoverable), and even if no pecuniary loss is shown. The amount of the damage to be awarded when no individualized injury is shown is dependent on the nature of the wrong. *The amount fixed by the District Court should be neither so small as to trivialize the right nor so large to provide a windfall.*¹⁵⁶

The position of the courts with regard to substantive constitutional rights was stronger yet. As early as 1919, in *Wayne v. Venable*,¹⁵⁷ the Eighth Circuit upheld a verdict for \$2,000 in favor of each voter the defendants' conspiracy prevented from exercising a right to vote. In eloquent language, which has been quoted countless times, the court said:

In the eyes of the law this right is so valuable that damages are presumed from the wrongful deprivation of it without evidence of actual loss of money, property, or any other valuable thing, and the amount of the damages is a question peculiarly appropriate for the determination of the jury because each member of the jury has personal knowledge of the value of the right.¹⁵⁸

Indeed, over sixty years ago the Supreme Court accepted the principle that deprivation of the right to vote causes compensable damages.¹⁵⁹

The analogy to informed choice litigation is compelling. The purpose of the duty of a physician or a manufacturer to share information is to empower the plaintiff, if he desires, to become a participant in an important decision-making process concerning his own body. To hold this process right hostage to personal injury damages is as illogical as deni-

152. *Id.*

153. *Id.*

154. *Id.*

155. 545 F.2d 30 (7th Cir. 1976), *rev'd*, 435 U.S. 247 (1978).

156. *Id.* at 31-32 (emphasis added).

157. 260 F. 64 (8th Cir. 1919).

158. *Id.* at 66.

159. *Nixon v. Herndon*, 273 U.S. 536 (1927).

grating the value of the right to vote in an election because the vote would not have altered the election result. Courts should value the decision right and assess substantial damages for its violation, even though plaintiffs cannot realistically establish decision causation.

In valuing the right to information in the informed choice context, supporting recoveries well in excess of those awarded in the constitutional tort cases is appropriate.¹⁶⁰ Arguably, restricting damages in the constitutional setting is proper because other deterrent forces serve to abridge the undesirable conduct. Criminal sanctions, injunctive relief, and the award of attorney's fees to successful litigants act as partial, if incomplete, deterrents.¹⁶¹ The glare of public reaction and the power of elective reform further serve as partial curbs on undesirable behavior. However, only damages that create the appropriate deterrent against unilateral decision making can enforce the right to information in the medical and products contexts.

The decisions of the United States Supreme Court in *Carey v. Phipus*¹⁶² and *Memphis Community School District v. Stachura*¹⁶³ do not contradict this thesis. Admittedly, taken together, these cases hold that, for the violation of both procedural and substantive constitutional rights, a court may not award anything but nominal damages if the plaintiff establishes no other damages. For several reasons, however, the Court's pronouncements in these cases should have little bearing on the wisdom of recognizing compensation to accomplish pure deterrence in the informed choice setting. First, the Court argued that no historical precedent supports deterrence through section 1983 actions based on anything other than compensation of the plaintiff.¹⁶⁴ Second, as noted above, the Court recognized that even if inferred damages for the violation of constitutional rights are not recognized, other deterrent forces work to protect those rights.¹⁶⁵ Third, the *Carey-Stachura* doctrine has been the object of blistering academic commentary.¹⁶⁶ Finally, *Stachura* may have resurrected the valuation-of-the-right doctrine shortly after inter-

160. Pre-*Carey* process right violations with no proof of actual damages tended to yield small presumed damage awards. See, e.g., *Seaton v. Sky Realty Co.*, 491 F.2d 634 (7th Cir. 1974) (five hundred dollars); *Sexton v. Gibbs*, 327 F. Supp. 134 (N.D. Tex. 1970) (five hundred dollars).

161. *Carey v. Phipus*, 435 U.S. 247, 256 n.11 (1978).

162. 435 U.S. 247 (1978).

163. 477 U.S. 299 (1986).

164. *Carey*, 435 U.S. at 256.

165. *Id.* at 256-57 & n.11.

166. See, e.g., *Love, Damages: A Remedy for the Violation of Constitutional Rights*, 67 CALIF. L. REV. 1242 (1979); Note, *Damage Awards for Constitutional Torts: A Reconsideration After Carey v. Phipus*, 93 HARV. L. REV. 966 (1980). Post-*Carey*, several circuits continued to recognize damages for the abstract value of substantive constitutional rights. See, e.g., *Bell v. Little Axe Indep. School Dist. No. 70*, 766 F.2d 1391, 1408-11 (10th Cir. 1985); *Herrera v. Valentine*, 653 F.2d 1220, 1227-29 (8th Cir. 1981); *Konczak v. Tyrrell*, 603 F.2d 13, 17 (7th Cir. 1979), cert. denied, 444 U.S. 1016 (1980). For excellent discussions identifying reasons for recognizing intrinsic rather than instrumental values, see L. TRIBE, *AMERICAN CONSTITUTIONAL LAW* § 10-7 (2d ed. 1988); *Sapphire, Specifying Due Process Values: Toward A More Responsive Approach to Procedural Protection*, 127 U. PA. L. REV. 111 (1978).

ring it. The Court noted that it was objecting to evaluation of a constitutional right. However, the Court opined:

[W]hen a plaintiff seeks compensation for an injury that is likely to have occurred but difficult to establish, some form of presumed damages may possibly be appropriate. In those circumstances, presumed damages may roughly approximate the harm that the plaintiff suffered and thereby compensate for harms that may be impossible to measure.¹⁶⁷

Once courts recognize that decision causation is nonjusticiable, they can use the constitutional rights cases as an analogous guide to an informed choice action seeking recovery for the denial of a right to engage in a significant decision-making process.¹⁶⁸ These constitutional rights cases clearly differentiate between the outcome of the process and the denial of participation in the process itself.¹⁶⁹

167. *Memphis Community School Dist. v. Stachura*, 477 U.S. 299, 310-11 (1986) (citations omitted). S. NAHMOD, *supra* note 141, § 4.01, notes that *Carey* seemed to draw a distinction between inappropriate presumed and appropriate inferred damages. Thus, the Court is apparently willing to allow for recovery of process right damages so long as they are dressed in the garb of compensatory damages, not valuing the intrinsic right. Because the plaintiff may not be able to prove other actual damages, she may apparently recover the intrinsic damages, albeit as compensatories.

168. Professor Nahmod has correctly drawn the distinction between the existence of a constitutional violation and cause-in-fact for damages purposes. With regard to the violation of the constitutional right, plaintiff bears the burden of proving a violation. Once the violation is established, however, *Carey* shifts the burden of proof to the defendant to prove by a preponderance of the evidence that no "but for" relation between the constitutional violation and plaintiff's damages existed. *Carey v. Piphus*, 435 U.S. 247, 260-61 (1978); S. NAHMOD, *supra* note 141, § 4.02.

Notably, in *Carey*, 435 U.S. at 261 n.16, the Court responded to the argument of respondent that damages for the violation of the intrinsic right were necessary because respondent was "deprived of the chance to present facts or arguments in mitigation to the initial decision maker," and that "[i]t can never be known . . . what, if anything, the exercise of such an opportunity to plead one's cause on judgmental or discretionary grounds would have availed." This argument questions the justiciability of decision causation. The Court, in our opinion, correctly rejected the argument. The issues and all the mitigating facts were before the lower court, and there was no reason why they could not resolve how they would have ruled on a closed set of facts. This context is far different than adjudicating decision causation in informed consent litigation, where the fact finder has no way of predicting how the factual data would have been integrated by the decision maker.

169. Numerous scholars have discussed the importance of process-related rights. E.g., Summers, *Evaluating and Improving Legal Process—A Plea for "Process Values"*, 60 CORNELL L. REV. 1 (1974). Frank Michelman has explored the values of process as though process has some independent value, in and of itself. Michelman, *The Supreme Court and Litigation Access Fees: The Right to Protect One's Rights*, 1973 DUKE L.J. 1153, 1172-77. Recent works in feminist legal theory also emphasize the importance of process as an independent value in various senses. Minow, *The Supreme Court, 1986 Term—Foreword: Justice Engendered*, 101 HARV. L. REV. 10 (1987) (process of judicial decision making), Schneider, *The Dialectic of Rights and Politics: Perspectives from the Women's Movement*, 61 N.Y.U. L. REV. 589 (1986) (dialectical process of rights assertion and social change).

Some might question why we propose to value a process which is subject to so much irrationality. As discussed *supra* note 91, we take no position with regard to the irrationality of decision making. We argue only that decision making is hopelessly unpredictable, and hence, nonjusticiable. Furthermore, the process arguments set forth in this article do not depend on decision-making rationality for their verity. Decision making is an important reflection of autonomy, and hence, worthy of protection without regard to either its rationality or its predictability.

We take no position in this article about whether process rights should be protected in other legal contexts. Medical choice and products liability cases have already recognized a duty to convey

B. Valuing Autonomous Decision Making

Relying on the personal injury model in informed consent cases not only has diverted attention from valuing the intrinsic right to participate in decision making, it has also been responsible for the lack of analysis, in the literature, of what values autonomous decision making fosters. Though the discussion that follows is primarily instrumentalist, separating the instrumental value from the inherent value of the right itself is often difficult.¹⁷⁰

1. The Trauma of Suddenness

A patient suffering from a disease who undergoes a therapeutic intervention usually has a basic understanding of the normal progression of the illness. The ability of the patient to mentally adjust to and gradually accommodate the changed reality brought about by the illness substantially reduces shock and anxiety. Illnesses that are severe and sudden in their onset, such as heart attacks and strokes, produce enormous anxiety for those who suffer first exposures because of the suddenness of the insult.¹⁷¹ In a matter of a few minutes, the victim's world has drastically changed. Not unlike the traumatic neurosis that follows a sudden and unexpected accident, the unexpected nature of the harm takes a toll separate and apart from the medical injury itself.¹⁷²

When a doctor deprives a patient of information with regard to risks that attend therapeutic intervention and the risks actually occur, the patient is beset by serious and unexpected psychological iatrogenic injury, in addition to the physical injury. Not only does the patient suffer needless trauma, but the patient is also profoundly troubled that medical therapy induced the trauma. The very therapy designed to heal has caused serious injury. Similarly, the purchaser of a product who has no reason to believe that the product will harm him often confronts sudden and unexpected emotional injury when a product which he previously per-

information to give the recipient decision-making power. These two areas raise particularly vexing decision causation issues when personal injury damage awards are based on the hypothesis of an alternative choice. To our knowledge, no other areas of the law present the extreme problems indigenous to these two discrete subject matters.

170. In order to assure that the informed choice doctrine produces the proper level of deterrence, courts will need to value both the process right itself and the factors set forth below. As Professor Richard Epstein has reminded us, many plaintiffs will not bring suit for the violation of informed consent rules, even though the level of information provided was inadequate. If the patient who wishes to bring suit does not have adequate incentive to do so, the right may pass into oblivion. This means that incentives to protect the process right should be seriously assessed. This does not necessarily support using personal injury damages as the measure of the process right.

171. See Stern, *Psychiatric Management of Acute Myocardial Infarction in the Coronary Care Unit*, 60 AM. J. CARDIOLOGY 59J (1987).

172. Such damages are routinely alleged in personal injury claims. See M. BELL, MODERN DAMAGES § 259 (1960); see also Andrews, *Informed Consent Statutes and the Decisionmaking Process*, 5 J. LEGAL MED. 163, 165-68 (1984); Wolfensberger & Menolascino, *A Theoretical Framework for the Management of Parents of the Mentally Retarded*, in PSYCHIATRIC APPROACHES TO MENTAL RETARDATION ch. 20, at 478-81 (F. Menolascino ed. 1970).

ceived as beneficial or totally benign injures him. Although these damages fall primarily within the category of mental distress and do not reflect the physical injury which results from the uninformed risks of the therapeutic intervention, the seriousness of the physical injury will nonetheless affect the severity of the damage done by the corresponding emotional injury. A patient who is suddenly paralyzed or without bladder control has good reason to react with panic. The occurrence of more minor risks is likely to be less disconcerting.

Not all informed consent cases involve unexpected trauma. But, this kind of shock plays an important role in a significant percentage of the cases. The harm is not trivial and deserves recognition.¹⁷³ Because the doctor caused the trauma by her failure to warn the patient of the risks, the traumatic nature of the injury should be cognizable whether or not the patient would have consented to the therapeutic intervention if fully informed.

2. *Willingness and Acceptance*

A patient who is fully informed for reasoned decision making brings personal willingness and acceptance to the ultimate decision. This point

173. Shultz believes that the law of informed consent's major importance is to provide choice between alternative therapies. She attaches minor significance to the duty to inform a patient about remote risks. See Shultz, *supra* note 8, at 228. We believe that even remote risk information is of considerable importance.

An excellent review of the literature dealing with the direct health benefits which inure to patients who are adequately informed of possible risks and negative aspects which attend therapeutic and diagnostic procedures is found in Andrews, *Informed Consent Statutes and the Decisionmaking Process*, *supra* note 172, at 164-75. The classic work on this subject is I. JANIS, *PSYCHOLOGICAL STRESS: PSYCHOANALYTIC AND BEHAVIORAL STUDIES OF SURGICAL PATIENTS* (1958). See also I. JANIS & L. MANN, *supra* note 109. The crux of Janis' thesis is that preparation for impending crisis or disaster causes what he calls the "work of worrying." This emotional inoculation permits the patient to develop a set of psychological defenses so that the patient is better able to cope with the adversity when and if it becomes a reality.

The work of Janis has been repeatedly tested in a variety of settings. Widespread agreement exists that well-informed patients display a better ability to cope with adversity. See, e.g., Johnson & Leventhal, *Effects of Accurate Expectations and Behavioral Instructions on Reactions During a Noxious Medical Examination*, 29 J. PERSONALITY & SOC. PSYCHOLOGY 710 (1974); Levy & McGee, *Childbirth and a Crisis: A Test of Janis' Theory of Communication and Stress Resolution*, 31 J. PERSONALITY & SOC. PSYCHOLOGY 171 (1975); Schmitt & Woolridge, *Psychological Preparation of Surgical Patients*, 22 NURSING RES. 108 (1973). Some researchers have questioned whether the mechanism which accounts for reduced stress results from the "work of worrying." See Vernon & Bigelow, *Effect of Information About a Potentially Stressful Situation on Responses to Stress Impact*, 29 J. PERSONALITY & SOC. PSYCHOLOGY 50 (1974). Another has questioned its validity when applied to some personality types. See Andrew, *Recovery From Surgery, with and Without Preparatory Instruction, for Three Coping Styles*, 15 J. PERSONALITY & SOC. PSYCHOLOGY 223 (1970).

A recent study has suggested that providing a patient a choice between alternative surgical procedures may reduce anxiety level both before and after surgery. Morris & Royle, *Offering Patients a Choice of Surgery for Early Breast Cancer: A Reduction in Anxiety and Depression in Patients and Their Husbands*, 26 SOC. SCI. MED. 583 (1988). The researchers studied two groups of patients who suffered from early stages of breast cancer. One group was given a choice between simple mastectomy and wide excision plus radiotherapy and another group was given no choice (simple mastectomy was performed due to the location of the tumor). A significantly higher percentage of the patients not offered a choice of surgery experienced clinical levels of anxiety and depression both before and after the operation compared with the patients who were offered a choice.

is obvious and seems unnecessary to belabor. However, this very obvious point has eluded the courts. Their preoccupation with decision causation has prevented them from identifying this very real deprivation as one worthy of significant compensation.

The wrongful birth cases illustrate how little attention the courts have given to these values.¹⁷⁴ Consider the following hypothetical cases. Their respective obstetricians do not inform two pregnant women in their late thirties that amniocentesis can detect whether their fetuses have Down's syndrome. Both women subsequently give birth to children that suffer from the disability. One woman is a stalwart right-to-life advocate who has lectured throughout the country declaring that under no circumstances would she ever have an abortion. The second woman has not only supported liberal availability of abortion as a national policy, but has, during her nationwide lectures, clearly stated that if she knowingly faced the prospect of bearing a child with a serious birth defect, she would abort the fetus. Following the traditional decision causation rules, the proabortion plaintiff could establish a case for wrongful birth damages from the denial to her of information which would have led her to a decision to abort.¹⁷⁵ A court would probably dismiss the right-to-life

174. Wrongful birth cases involve claims by parents against health care providers for failing to inform the parents of the risks of having a child with a serious birth defect. *See, e.g.*, Gallagher v. Duke Univ., 638 F. Supp. 979 (M.D.N.C. 1986); Smith v. Cote, 128 N.H. 231, 513 A.2d 341 (1986); Berman v. Allan, 80 N.J. 421, 404 A.2d 8 (1979); Becker v. Schwartz, 46 N.Y.2d 401, 386 N.E.2d 807, 413 N.Y.S.2d 895 (1978); Dumer v. St. Michael's Hosp., 69 Wis. 2d 766, 233 N.W.2d 372 (1975).

The parents invariably claim that had they been adequately informed they would have chosen to abort the fetus, and thus, would not have incurred the expense of raising the handicapped child. Since *Roe v. Wade*, 410 U.S. 113 (1973), almost all courts passing on the question have recognized the cause of action. *See Note, Wrongful Birth Actions: The Case Against Legislative Curtailment*, 100 HARV. L. REV. 2017, 2018 n.5 (1987).

Wrongful birth actions, brought on behalf of the parents, should be distinguished from wrongful life actions, brought on behalf of the child that is born with the birth defect. In contrast to wrongful birth actions, the wrongful life actions have not been well-received by the courts. Because the child contends that as a result of the health care provider's negligence she was born to suffer, her claim is essentially that she would have been better off not being born. This argument finds its antecedent in *Job 3:2*. Courts refuse to value the injury to the child who was wrongfully born, because damages must reflect a comparison with the condition of nothingness—the result if the parents had aborted the fetus. *See Goldberg v. Ruskin*, 113 Ill. 2d 482, 485, 499 N.E.2d 406, 407 (1986); *Lininger v. Eisenbaum*, No. 86SC307, slip op. at 20 n.10 (Colo. Nov. 28, 1988); *Becker v. Schwartz*, 46 N.Y.2d at 412, 386 N.E.2d at 812, 413 N.Y.S.2d at 900-01. *But see Turpin v. Sortini*, 31 Cal. 3d 220, 643 P.2d 954, 182 Cal. Rptr. 337 (1982); *Procanik v. Cillo*, 97 N.J. 339, 478 A.2d 755 (1984).

175. The wrongful birth cases are predicated upon the ability of the parents to establish that had they been informed of the likely birth defect, the mother would have chosen to abort. *See, e.g.*, *Robak v. United States*, 658 F.2d 471, 477 (7th Cir. 1981) (“[B]ut for defendant's negligent failure to inform Mrs. Robak of her rubella and its consequences, she would have obtained an abortion and the Robaks would not have suffered the damages for which they seek recovery.”); *Smith v. Cote*, 128 N.H. 231, 241, 513 A.2d 341, 347 (1986) (causation is established if plaintiff can show “that, but for the defendants' negligent failure to inform her of the risks of bearing a child with birth defects, she would have obtained an abortion.”); *Dumer v. St. Michael's Hosp.*, 69 Wis. 2d 766, 776, 233 N.W.2d 372, 377 (1975) (plaintiffs must convince trier of fact that if informed of effects of rubella on the fetus that the parents “would have sought and submitted to an abortion of the wife.”); *see also Capron, Tort Liability in Genetic Counseling*, 79 COLUM. L. REV. 618, 638 n.90 (1979); *Note, Father and*

plaintiff's claim on summary judgment. After all, she would not have chosen to abort in any event. Yet, such a result would, in our opinion, be wholly unjustified.

Parents who are deeply committed to a religious or ethical position against abortion are entitled to exercise their choice consistent with their religious or ethical precepts. Denial of that choice deprives them of significant rights. "The moral affront . . . is not diminished because the parents, if given the choice, would have permitted the birth of the child. The crucial moral decision, which was theirs to make, was denied them."¹⁷⁶

Even if the parents' choice would have been the same, they were deprived of the opportunity to give expression to important moral choices. One can easily imagine soul-searching discussions between husband and wife in which they choose to affirm that they are prepared to practice what they preach. Consultation with religious leaders may provide them solace, if not a sense that their actions are saintly. The blessing of time to accommodate while they still have options may deepen their resolve that the child is indeed wanted. Moreover, earlier knowledge would give the couple several months to prepare for the consequences of their decision.

The role of willingness and acceptance is of equal importance in the

Mother Know Best: Defining the Liability of Physicians for Inadequate Genetic Counseling, 87 YALE L.J. 1488, 1509-10 (arguing for subjective causation test in genetic counseling cases).

176. *Berman v. Allan*, 80 N.J. 421, 439, 404 A.2d 8, 18 (1979) (Handler, J., concurring in part and dissenting in part). In speaking of the damages suffered by parents who gave birth to a child with Down's syndrome and were not told of the risk and the availability of amniocentesis to test for the condition, Handler argued:

Without doubt, expectant parents, kept in ignorance of severe and permanent defects affecting their unborn child, suffer greatly when the awful truth dawns upon them with the birth of the child. Human experience has told each of us, personally or vicariously, something of this anguish. Parents of such a child experience a welter of negative feelings—bewilderment, guilt, remorse and anguish—as well as anger, depression and despair. When such a tragedy comes without warning these terrible emotions are bound to be felt even more deeply. "Novelty shock" may well exacerbate the suffering. This, I believe, is the crux of the wrong done in this case. Through the failure of the doctors to advise an expectant mother, and father, of the likelihood or certainty of the birth of a mongoloid child, the parents were given no opportunity to cushion the blow, mute the hurt, or prepare themselves as parents for the birth of their seriously impaired child. Their injury is real and palpable. Moreover, it is not easy to overcome these feelings or adjust to the tragedy of having a defective child. It is recognized that a mother, even in normal circumstances, may suffer depressive and negative feelings upon the birth of a healthy child. If her psychological state has been further impaired by the shock of the birth of a defective child her recovery may well be even more prolonged and dubious. In any given case, the mental and emotional suffering of parents might continue for some period of time beyond the birth of a child and should be recognized as an important aspect of the parents' injury.

Because of the unique nature of the tort, involving as it does the denial of the opportunity to decide whether to become the parents of a handicapped child, the suffering of the parents assumes another, important dimension. There should be recognized in the stressful setting of this case the reality of moral injury. Such injury may be thought of as the deprivation of moral initiative and ethical choice. Persons, confronted with the awesome decision of whether or not to allow the birth of a defective child, face a moral dilemma of enormous consequence. They deal with a profound moral problem. To be denied the opportunity—indeed, the right—to apply one's own moral values in reaching that decision, is a serious, irreversible wrong.

Id. at 438-39, 404 A.2d at 17-18 (citations omitted). See also *Procanik v. Cillo*, 97 N.J. 339, 360, 478 A.2d 755, 766-67 (1984) (Handler, J., concurring in part and dissenting in part).

more traditional medical informed choice case. Most people are painfully aware that illness deprives them of enormous freedom and that their options are limited. However, when someone unilaterally takes away even the few choices left to them, bitterness and anger follow.

Again, the focus on personal injury damages misses the point. The law tells physicians that they should provide information to enhance the patient's right to *decline* a recommended procedure, thus avoiding its attendant risks, or to permit *alternate* decisions to be made. But doctors intuitively know that rarely will patients second-guess their recommendations.¹⁷⁷ And in any event, doctors believe that replaying the hypothetical decision making of a patient presented with a reasonable recommendation is impossible.¹⁷⁸ The single-minded obsession with decision causation has prevented the law from sending the appropriate message to doctors. Information for *alternate* decision making is not of primary importance, but rather, information for *involvement* in the process of decision making is crucial.¹⁷⁹ In any event, the former is often illusory. The doctor denies the latter right in all cases where she acts without fully informing the patient.

3. *Valuing the Options*

Not all choice deprivations are of equal magnitude. When valuing the denial to the plaintiff of his right to exercise options, one must con-

177. Beecher, *Consent in Clinical Experimentation: Myth and Reality*, 195 J. A.M.A. 34, 34-35 (1966); see also Ingelfinger, *Informed (But Uneducated) Consent*, 287 NEW ENG. J. MED. 465, 466 (1972). In a study by Appelbaum & Roth, *Treatment Refusal in Medical Hospitals*, in 2 MAKING HEALTH CARE DECISIONS, *supra* note 8, app. D, the authors report on the reasons that patients refused therapeutic and diagnostic intervention in hospitals. They conclude that the failure to provide adequate information was "by itself an inadequate explanation for refusal" of treatment. *Id.* at 423 (emphasis in original). The authors catalogue a wide variety of noninformation reasons that they believe motivated patient refusal. In many instances, doctors or other health care providers were able to convince the patient to agree to the procedure.

Lidz & Meisel, *Informed Consent and the Structure of Medical Care*, in 2 MAKING HEALTH CARE DECISIONS, *supra* note 8, app. C, investigated the role of informed consent in differing treatment settings. They conclude that:

Fundamentally, patients feel that they are unequal to the task of making medical decisions, even when provided information to do so. They feel no more equipped to decide which treatment among several alternatives to choose than the average person does to choose between several ways to build a wall. If we want a wall built, we tell the contractor to use brick and where to put it. The contractor chooses the brick and the mortar, hires the assistants, and decides whether to use two or three layers of brick. If a sick person wants his illness attended to, he feels that he is well-advised to hire a physician, osteopath, or chiropractor to deal with it. The patient chooses the doctor and presents the problem. The rest is the doctor's concern.

Although it is sheer speculation, it is possible that what deters doctors from obtaining informed consent in conformity with the spirit of the doctrine is that they know, and have long known, what we have found in this study: that patients are not interested in, nor do they believe that they are capable of, playing the role assigned by law. Knowing this—and believing, too, that patients are not capable of playing that role—doctors do not take the time and effort themselves to comply with the legal dictates addressed to them.

Id. at 403-04.

178. See, e.g., Beecher, *Some Guiding Principles for Clinical Investigation*, 195 J. A.M.A. 1135 (1966); Laforet, *The Fiction of Informed Consent*, 235 J. A.M.A. 1579 (1976); Ravitch, *Informed Consent—Descent to Absurdity*, MED. TIMES, Sept. 1973, at 164.

179. See 1 MAKING HEALTH CARE DECISIONS, *supra* note 8, ch. 7, at 153-54.

sider the range of options available and their possible benefits and detriments. The greater the range of benefits available through alternate choice, the greater the harm done to the choice-making process. A patient facing two alternative surgical procedures with only slightly different benefits and only slightly different risks of paralysis is deprived of less by the denial of information than a woman facing a choice between radical mastectomy and chemotherapy. Once more, the focus on the undesirable result rather than on the uninformed nature of the decision-making process has diverted attention from the actual damages that flow from a crippled decision-making process.

*Blankenship v. Cincinnati Milacron Chemical, Inc.*¹⁸⁰ illustrates the very high cost of failing to identify and value the range of options denied plaintiffs. In that case, eight former employees of Milacron sued their employer for subjecting them to noxious chemical fumes which caused them injury. The plaintiffs alleged that the defendant, though it had knowledge that the situation existed, "failed to correct said conditions, failed to warn appellants-employees of the dangers and conditions that existed and failed to report said conditions to the various state and federal agencies to which they were required to report by law."¹⁸¹

Notwithstanding the seriousness of the allegations, the trial court dismissed plaintiffs' actions because workers' compensation covered the employer, and thus immunized the employer from tort liability. On appeal the Ohio Supreme Court noted the allegations that Milacron had intentionally failed to warn its employees of the dangers of the toxic chemicals. The court held that the Ohio Legislature did not intend the Ohio worker compensation statute to immunize employers from intentionally tortious conduct, and thus, recognized a common law right to tort recovery. In a sharp partial dissent, Justice Locher took issue with the majority's intentional tort analysis.¹⁸² He argued that if the employer did not act with "knowledge to substantial certainty" that harm would result, then mere knowledge on the part of the employer that it was subjecting plaintiffs to a risk of harm did not constitute an intentional tort.¹⁸³

In *Jones v. VIP Development Co.*,¹⁸⁴ the Ohio Supreme Court expanded *Blankenship* beyond toxic torts. In a set of cases consolidated for appeal, the court allowed the intentional tort exception to include failure to warn employees about dangers from high voltage distribution lines on the premises and from removing a safety cover from a discharge chute. The court relied on the definition of intent embodied in section 8A of the *Restatement (Second) of Torts*, which includes instances where the defendant desired to bring about the harm or acted with knowledge to sub-

180. 69 Ohio St. 2d 608, 433 N.E.2d 572 (Ohio), *cert. denied*, 459 U.S. 857 (1982).

181. *Id.* at 609, 433 N.E.2d at 574.

182. *Id.* at 620-21, 433 N.E.2d at 580-82 (Locher, J., concurring in part and dissenting in part).

183. *Id.* at 621, 433 N.E.2d at 581 (Locher, J., concurring in part and dissenting in part).

184. 15 Ohio St. 3d 90, 472 N.E.2d 1046 (Ohio 1984).

stantial certainty that the harm would come about.¹⁸⁵ The court said: "A defendant who fails to warn of a known defect or hazard which poses a grave threat of injury may reasonably be considered to have acted despite a belief that harm is substantially certain to occur."¹⁸⁶

Scholarly writings have scathingly attacked *Blankenship* and *Jones*.¹⁸⁷ If the logic of these cases held true, then workers' compensation immunity could be easily bypassed by an allegation that the employer was aware of a risk and had intentionally not corrected it. Employers sought and ultimately accomplished legislative reform which brought the intentional tort exception back into line with the traditional definition of intent.¹⁸⁸

The court should have analyzed *Blankenship* as an informed choice case. The employer had in its possession information regarding the toxic nature of the work environment that it did not share with its employees. The employees were entitled to the information so that they could choose among a broad range of options in deciding whether to continue working in the presence of such toxic chemicals, and if so, under what terms they wished to do so. Terminating their employment was not the only option available to the employees. For example, with full knowledge of the danger, they might have bargained for pay increases that reflected the high risk of exposure to toxicants, or for health, disability, and death benefits. Or employees might have bargained for lessened exposure to the risk through shorter hours, alternate shifts between tasks which entailed exposure to toxic fumes and those which did not, gas masks, and so on.

The failure to identify and value these options was, we believe, responsible for the legislative overruling of the *Blankenship* doctrine. The *Blankenship* court struggled to find a defensible reason for excluding the employer from workers' compensation immunity. It reasoned that the workers' compensation bargain covered only negligent torts and not situations with a clear intent to harm. However, this was not a case of an employer physically assaulting an employee. The harm that eventuated was not substantially certain to follow from the exposure to toxic fumes. The defendant merely knew that a risk of harm was present. In its zeal to reach such conduct, the court stretched intentional tort principles to cover an employer who acted with knowledge of risks which could pro-

185. RESTATEMENT (SECOND) OF TORTS § 8A (1965).

186. *Jones*, 15 Ohio St. 3d at 96, 472 N.E.2d at 1052.

187. Epstein, *The Historical Origins and Economic Structure of Worker's Compensation Law*, 16 GA. L. REV. 775, 803 (1982); Comment, *In the Wake of Blankenship: Following Footprints in the Mire of Intentional Torts in the Workplace in Ohio*, 12 N. KY. L. REV. 267 (1985). The leading treatise describes the Ohio court "as if driven by some passionate determination to destroy the exclusiveness principle altogether." A. LARSON, LARSON'S WORKMEN'S COMPENSATION § 68.15, at 13-54 (J. Duke ed. 1988).

188. OHIO REV. CODE ANN. § 4121.80(G)(1) (Anderson Supp. 1987) now defines "intentional tort" as "an act committed with the intent to injure another or committed with the belief that the injury is substantially certain to occur." Even where intent is established, only a limited recovery from a special intentional tort fund is allowed. *Id.* § 4121.80(D)-(E).

duce physical injury. Such an approach presented a real threat to the integrity of workers' compensation.

The court was correct that refusal of an employer to share a private cache of information with employees is wholly inconsistent with the workers' compensation bargain, but not because the employer has acted intentionally to cause harm. If employees face risks of which they are unaware, and upon which they are unable to obtain information, they enter the employment relationship with severely crippled bargaining power. Potential personal injury goes to the heart of the employment relationship. That employees would agree to a workers' compensation bargain when unable to evaluate the risks of employment is inconceivable.

Blankenship stands apart from the run-of-the-mill workers' compensation case because the employer totally excluded the workers from the process of risk evaluation and legitimate choice making. In *Jones*, however, the employer did not block employees as a class from discovering general risks attendant to employment. Employees may have been ill-informed as to a particular risk on a given day, but this hardly warrants abandonment of workers' compensation immunity. In short, *Blankenship* implicated information crucial to the fundamental employment decision—whether to work for a particular employer and on what terms. *Jones* dealt with failure to provide information knowable by employees (if not actually known to the plaintiffs). Thus, *Jones* dealt with risk, not choice. Workers' compensation traditionally covers injuries from such risks.

Had *Blankenship* articulated a narrow choice-based exception to workers' compensation, rather than the intent-based broadside, it likely would not have engendered the kind of opposition that led to its legislative repeal. The intent-based exception opened the door to full personal injury recovery in a significant percentage of workers' compensation cases. A choice-based, process exception would have narrowed both the scope of cases and the amounts recoverable, with a correspondingly diminished threat to the workers' compensation system.

The cost of treating all cases with personal injuries as "personal injury" cases is substantial. Where choice-making and process values are the gravamen of the harm, they must be identified and valued separate and apart from the resultant personal injury. Whether courts should ever recompense the resultant personal injury in informed choice litigation is a matter to which we now turn our attention.

4. *Compensating for the Bad Result*

As indicated above, the authors disagree whether plaintiffs should recover for physical injuries that occur following a decision predicated on

inadequate information.¹⁸⁹ We agree, however, that, at a minimum, in the traditional informed consent case the plaintiff should not recover personal injury damages unless he is able to establish circumstances that provide some assurance of integrity to the decision causation finding. Furthermore, with regard to a narrow band of cases, we both believe that a strong case can be made to allow full recovery of personal injury damages.

Not all medical informed consent cases involve medical decisions: some decisions relate almost solely to personal values and personal preferences. Medicine merely provides the backdrop for a decision that is truly nonmedical in nature. The wrongful birth cases, discussed earlier, are illustrative.¹⁹⁰ The decision whether to abort a fetus in the first trimester is relatively free of medical risk and does not require sensitive evaluation of medical risk data. The decision causation question does not ask the trier of fact to choose from sharply differing medical preferences nor to evaluate what effect small pieces of incremental medical risk information would have had on the patient's decision. The jury does not reproduce a decision-making process reflecting the exigencies of a wrenching medical decision by asking how one piece of abstract risk information would have affected the decision. Deciding what value judgment the patient would have made is more readily based on an evaluation of the patient's religious and ethical beliefs, the patient's life-style, and other matters that are more readily provable in the courtroom. In this special kind of case, decision causation may be justiciable, and those courts that have allowed substantial damages for failing to provide the requisite information may have been justified in doing so.¹⁹¹

Recognizing an exception for cases in which differing nonmedical values of patients make decision causation a justiciable issue does not create the kind of exception that undermines the thesis of this article. Admittedly, patients will always be able to contend that their differing values would have led them to choose one form of therapy over another. The crucial distinction is that before a court can determine whether the particular values of a patient would have led that patient to a contrary decision, the court must be able to predict with some confidence how that

189. See *supra* text following note 140.

190. See *supra* text accompanying notes 170-72.

191. Decisions with regard to whether a woman would have decided to abort had her doctor given her the requisite information are not unlike the decisions dealing with the cessation of life-support systems when the patient is incompetent. Courts faced with deciding the hypothetical question—what would this patient have decided had he been competent?—have looked to a broad range of evidence to help determine the patient's subjective desires. See *In re Conroy*, 98 N.J. 321, 361-62, 486 A.2d 1209, 1229-30 (1985) (in addition to all evidence of a plaintiff's actual statements on the issue, the surrogate decision maker should consider a patient's religious beliefs or "patient's consistent pattern of conduct with regard to prior decisions about his own medical care"). In wrongful birth litigation, the jury is the surrogate decision maker, determining whether the mother would have aborted. The same kind of wide-ranging evidence that courts consider in the life-support cases is likely to inform this decision. Attempting to determine the result of a hypothetical idiosyncratic decision about sharply conflicting medical preferences is far different.

patient would have perceived and evaluated the risks of the alternative therapies. Unless one has confidence in that prediction, engaging in the process of determining how the patient's values would have affected his decision is not possible. As demonstrated earlier, how patients perceive and process information is unpredictable and subject to great variation. Thus, no model for information processing will support a baseline upon which value judgments can then operate. Nonetheless, one of the authors, Cohen, believes that courts should allow plaintiffs to establish that circumstances peculiar to the patient are so unusual that, with additional information, the value judgment would have been made contrary to the chosen therapy. Note that this approach would require the use of a subjective test for causation. The objective standard would be meaningless under such an approach because gauging either the irrationality or the value system of an objectively reasonable person would be impossible. On the other hand, Twerski believes that the complexity of the decision process renders the decision causation question nonjusticiable when the fact finder must gauge conflicting medical preferences. For Twerski, the key to adequate protection of the right to decision making lies in building sufficient deterrence into the law of informed choice—appropriately valuing the right by identifying the serious emotional harm that emanates from its denial.

5. *Valuing Process and Malpractice Reform*

No examination of medical informed consent can take place without recognizing the crisis atmosphere that presently pervades medical malpractice litigation. The perception that traditional notions of personal injury law do not function adequately are so widespread that legislatures throughout the nation are seriously considering radical statutory reform. No-fault proposals and other deviations from the traditional tort model are in the offing.¹⁹²

Regardless of the advisability or necessity of these changes in malpractice law, they are largely inapposite to the process-based model of informed consent proposed in this article. By moving the focus away from personal injury to process rights, this model eliminates many of the

192. For early discussions on the subject, see J. O'CONNELL, ENDING INSULT TO INJURY 29-47 (1975); Keeton, *Compensation for Medical Accidents*, 121 U. PA. L. REV. 590 (1973). The malpractice crisis has spawned considerable interest in various types of no-fault proposals. See, e.g., FLORIDA SENATE COMM. ON COMMERCE, FLORIDA MEDICAL MALPRACTICE REFORM AND A REVIEW OF COURT-ORDERED ARBITRATION (1988); O'Connell, *Neo-No-Fault Remedies for Medical Injuries: Coordinated Statutory and Contractual Alternatives*, LAW & CONTEMP. PROBS., Spring 1986, at 125; Tancredi, *Designing a No-Fault Alternative*, LAW & CONTEMP. PROBS., Spring 1986, at 277. Physician groups have propounded proposals for radically restructuring medical malpractice utilizing a fault-based system. See AM. MEDICAL ASS'N & SPECIALTY SOC'Y MEDICAL LIAB. PROJECT, A PROPOSED ALTERNATIVE TO THE CIVIL JUSTICE SYSTEM FOR RESOLVING MEDICAL LIABILITY DISPUTES: A FAULT-BASED, ADMINISTRATIVE SYSTEM (1988); MEDICAL SOC'Y OF THE STATE OF NEW YORK, AN ACT TO ESTABLISH THE PATIENTS' INJURY COMPENSATION SYSTEM OF THE STATE OF NEW YORK (Working Draft Feb. 5, 1988).

problems that are the object of the malpractice reform movement.¹⁹³ While we argue that process rights should be valued significantly, such values are by their nature not likely to produce the exorbitant damages which have fueled the movement for change.

As malpractice reform continues, one great danger is that it will be overbroad. In the crisis atmosphere surrounding the reforms, legislatures are not likely to be discriminating in setting the scope of their actions. They are likely to view all medical litigation as of one cloth. Sweeping away the important process rights that we have identified in a tide aimed at personal injury damages would be highly unfortunate.

V. CONCLUSION

Decision causation plays a pivotal role in the law of informed choice. Courts appear unwilling to assess damages for the bad result that follows an uninformed choice unless they believe that the patient, fully informed, would have chosen against the therapeutic intervention. Though scholars have suggested that courts abandon decision causation as an element of the cause of action, no evidence shows that courts will consider this approach. We believe that decision causation has retained its vitality in informed choice litigation because it provides a key to substantial personal injury damages. If a court can conclude that, given additional information, the patient would have refused the recommended therapy, then the court can justify awarding damages for the undesirable results of the therapy.

The justiciability of the decision causation issue depends on fashioning a credible model of decision making. If we cannot confidently predict how people perceive and process information for close-call decisions, we cannot determine whether a given piece of information would have altered the decision. Without an accurate model of decision making, the decision causation issue is nothing more than a guessing game. This article has demonstrated that reconstructing the patient's hypothetical decision process is virtually impossible and reshaping the doctor's duty to

193. Although the process-oriented model is not tied to artificial caps on recovery for the violation of the right, it recognizes that recovery of full personal injury damages is rarely, if ever, warranted. To the extent that open-ended recovery for pain and suffering has driven the malpractice crisis, the proposed model probably reduces the open-endedness of that kind of recovery substantially. See generally Priest, *The Current Insurance Crisis and Modern Tort Law*, 96 YALE L.J. 1521 (1986). Priest argues that the expansion of tort law to provide insurance for injuries even though those injuries were unpreventable has led to the unravelling of insurance markets for a variety of reasons. He suggests that we excise the insurance function from tort law and that the law of torts concern itself solely with accident reduction. Once the law correctly identifies the process right suggested herein, damages should be more susceptible to the kind of precise valuation that would deter the undesired conduct. To the extent that the law of informed consent compensates for injuries that would have taken place in any event (because plaintiff would have decided in favor of the therapy), the compensation for such an injury serves only as insurance for an unpreventable injury. Furthermore, the courts' failure to discount informed consent recoveries for injuries that might have occurred had the alternative therapy been utilized also gives damages that are the equivalent of insurance for unpreventable injuries. See Epstein, *supra* note 29, at 121 n.73.

inform in order to compensate for patients' unpredictable decisions is impractical.

Rather than focusing on decision causation, we suggest that courts direct their attention to valuing the process of decision making, separate and apart from the outcome of the decision. If doctors (or product manufacturers) understood that the law encourages participation in decision making, rather than avoidance of bad results attributable to undisclosed risks, they would more likely foster that goal rather than create a paper record to convince jurors that they disclosed a given piece of information. The change in focus would not only identify and value the true damage that occurs in informed choice cases, it would also communicate to those responsible for sharing information the true harm they bring about by their undesirable conduct. Today, the law sends a harsh and irrational message to those whose conduct it seeks to alter. We suggest that a message somewhat less harsh, but far more rational, will result in the delivery of more information, and for the right reasons. In any event, the change would spare us the silliness of litigating an issue which all know to be a mirage. The law cannot lie with impunity without exacting a heavy price. It need not do so. The truth is a quite acceptable alternative.

