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DOCTRINAL COLLAPSE IN PRODUCTS LIABILITY: THE EMPTY SHELL OF FAILURE TO WARN

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Liability for a manufacturer's failure to warn of product-related risks is a well-established feature of modern products liability law. Yet many serious doctrinal and conceptual problems underlie these claims. Professors Henderson and Twerski explore these problems and argue that failure-to-warn jurisprudence is confused, perhaps irreparably, and that this confusion often results in the imposition of excessive liability on manufacturers. The authors begin by exposing basic errors resulting from courts' confusion over whether to apply a strict liability or a negligence standard of care in failure-to-warn cases. Having determined that negligence is the appropriate standard, they then examine more substantial and intractable difficulties in failure-to-warn litigation, particularly the inability of juries to consider the marginal costs and benefits of adding warnings to those already provided. The authors conclude that fairness and efficiency goals of products liability law would be better served if judges were to take a more active role in screening out marginal failure-to-warn claims.

INTRODUCTION

Negligence dominates tort. Since courts first recognized the general duty of care in the mid-nineteenth century,¹ cases of all types have been tailored to fit the fault-based formula. Activities as diverse as automobile driving,² medical care provision,³ and land management⁴ are securely en-

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¹ The major works detailing the development of early American tort law are L. Friedman, *A History of American Tort Law* (2d ed. 1985); M. Horowitz, *The Transformation of American Law* (1977); Gregory, *Trespass to Negligence to Absolute Liability*, 37 Va. L. Rev. 359 (1951); Schwartz, *The Character of Early American Tort Law*, 36 UCLA L. Rev. 641 (1989); Schwartz, *Tort Law and the Economy in Nineteenth-Century America: A Reinterpretation*, 90 Yale L.J. 1717 (1981).

² Notwithstanding the argument that a large number of automobile accidents are not fault-based but are rather the product of split-second decisionmaking in a hostile environment, negligence remains the dominant mode for litigating such cases. See, e.g., 3 F. Harper, F. James & O. Gray, *The Law of Torts* §§ 11.4, 12.4 (2d ed. 1986) [hereinafter *The Law of Torts*]; R. Keeton & J. O'Connell, *Basic Protection for the Traffic Victim* 15-22 (1965); Ehrenzweig, "Full-Aid" Insurance for the Traffic Victim—A Voluntary Compensation Plan, 43 Calif. L. Rev. 1, 4 (1955); McNiece & Thornton, *Automobile Accident Prevention and Compensation*, 27 N.Y.U. L. Rev. 585, 604-05 (1952). The no-fault revolt of the 1970s never replaced the fault-based system in its entirety in any jurisdiction. More than half the states have not bought into even modest reform.

³ The case-by-case negligence litigation system continues for medical care cases, although

sconced in negligence doctrine. With the advent of modern American products liability law three decades ago,⁵ the traditional elements of negligence were quickly assimilated into the case law.⁶ This Article argues that deep and disturbing doctrinal problems exist with regard to a major category of negligence litigation—products cases involving failures to warn. Commercial distributors of products owe users and consumers a duty to warn of product-related risks that are not obvious. Failure to warn when a reasonable person would have warned exposes defendants to tort liability, as do other forms of unreasonably risky conduct in a negligence regime. In contrast to other areas of tort, however, the pre-

strong arguments have been made for at least partial replacement by a system which compensates for a pre-defined list of adverse consequences. See ABA Comm'n on Medical Professional Liability, Designated Compensable Event System: A Feasibility Study 49-51, 77-79 (1979); Henderson, The Boundary Problems of Enterprise Liability, 41 Md. L. Rev. 659, 668-73 (1982); Tancredi, Designing a No-Fault Alternative, 49 Law & Contemp. Probs. 277, 280-83 (Spring 1986).

Negligence law also governs the cause of action for informed consent, although numerous commentators have argued that it is in truth a dignitary tort. See, e.g., Katz, Informed Consent—A Fairy Tale? Law's Vision, 39 U. Pitt. L. Rev. 137, 143-47 (1977); Schultz, From Informed Consent to Patient Choice: A New Protected Interest, 95 Yale L.J. 219, 226-29 (1985).

⁴ In the case of landowner liability, traditional limited duty rules have been abandoned in many jurisdictions in favor of the all-purpose negligence formula. See, e.g., Rowland v. Christian, 69 Cal. 2d 108, 119, 443 P.2d 561, 568, 70 Cal. Rptr. 97, 104 (1968); Mile High Fence Co. v. Rodovich, 175 Colo. 537, 546-47, 489 P.2d 308, 313-14 (1971); Basso v. Miller, 40 N.Y.2d 233, 240-41, 352 N.E.2d 868, 872, 386 N.Y.S.2d 564, 568 (1976). The inexorable march of negligence doctrine swept away traditional rules limiting liability to adult trespassers as well as licensees and invitees. See 4 The Law of Torts, supra note 2, § 27.1-2.

⁵ By abolishing privity, Henningsen v. Bloomfield Motors, Inc., 32 N.J. 358, 413-17, 161 A.2d 69, 99-102 (1960), set the stage for the adoption of § 402A of the Restatement (Second) of Torts in 1964. Two articles by the late Dean Prosser chronicle the historic changes. See Prosser, The Assault upon the Citadel, 69 Yale L.J. 1099 (1960); Prosser, The Fall of the Citadel, 50 Minn. L. Rev. 791 (1966).

⁶ The traditional common law concepts of duty, standard of care, cause-in-fact, proximate cause, and contributory fault became part of products litigation. For an extensive discussion of the role of duty in products liability, see Twerski, Seizing the Middle Ground Between Rules and Standards in Design Defect Litigation: Advancing Directed Verdict Practice in the Law of Torts, 57 N.Y.U. L. Rev. 521 (1982). Standard of care or standard of product quality is basically governed by the risk-utility standard. See authorities cited in note 23 infra.

Cause-in-fact is governed by the self-same hypothetical *sine qua non* rule which governs negligence actions. See Haragan v. Union Oil Co., 312 F. Supp. 1392, 1395 (D. Alaska 1970); Steward v. Von Solbrig Hosp., Inc., 24 Ill. App. 3d 599, 603, 321 N.E.2d 428, 431-32 (1974); Midwestern V.W. Corp. v. Ringley, 503 S.W.2d 745, 747 (Ky. 1973); W. Prosser, The Law of Torts § 103 (5th ed. 1971). Proximate cause continues as a liability-limiting concept. See W. Keeton, D. Dobbs, R. Keeton & D. Owen, Prosser and Keeton on the Law of Torts § 102, at 711 (5th ed. 1984) [hereinafter Prosser & Keeton]. With regard to contributory fault, there is some controversy as to whether it should be an affirmative defense. However, a strong majority of courts apply comparative fault in products cases. See, e.g., Daly v. General Motors Corp., 20 Cal. 3d 725, 742, 575 P.2d 1162, 1172, 144 Cal. Rptr. 380, 390 (1978); Coney v. J.L.G. Indus., Inc., 97 Ill. 2d 104, 116, 454 N.E.2d 197, 202 (1983); V. Schwartz, Comparative Negligence § 12.2 (1986); H. Woods, Comparative Fault § 14.42-47 (1987).

cast negligence standards are inadequate for the tasks to which they have been assigned. The doctrine purporting to govern these cases has collapsed upon itself. To reestablish coherence, significant changes are necessary; fine-tuning will not suffice. Whatever must be done to set things right, the first step is to understand the problem. Meaningful changes in decisionmaking can only occur if policy makers, including judges, are made sensitive to the need for change.

Focusing on failure to warn may strike some followers of products liability as strange. Given the comparatively greater attention paid by commentators recently to liability for defective product designs,⁷ one might assume that failure to warn is a relatively problem-free area of law. Design cases present difficult issues, and we have no quarrel with those who have focused on them.⁸ But notwithstanding the attention paid to design litigation, at this stage in the development of products liability, failure to warn presents more serious doctrinal difficulties. Given the analytical confusion we identify in this Article, it is clear that defendants cannot pattern their responsive behavior in ways that optimize the relevant levels of product safety. Thus, the time is overdue to take a hard, critical look at an area that many seem to have assumed to be relatively problem free.⁹ We are motivated to do so not only because we perceive the theoretical underpinnings of the failure-to-warn doctrine to be unsound, but for intensely practical reasons as well. Far too many frivolous failure-to-warn cases survive appellate review. The absence of principled standards has fostered an atmosphere of lawlessness. Even the powerful tort reform movement of the past decade has had little effect on reversing the decisional patterns in failure-to-warn cases.

To understand the nature of the difficulties with failure-to-warn doctrine, we contrast it with defective-design litigation. With respect to allegedly defective product designs, commentators and courts have come to recognize that, given the interdependence of risk-utility factors such as

⁷ See authorities cited in note 23 *infra*.

⁸ Indeed both of the authors have written extensively on the difficulties which attend design litigation. See Henderson, *Expanding the Negligence Concept: Retreat from the Rule of Law*, 51 *Ind. L.J.* 467 (1976) [hereinafter Henderson, *Expanding the Negligence Concept*]; Henderson, *Judicial Review of Manufacturers' Conscious Design Choices: The Limits of Adjudication*, 73 *Colum. L. Rev.* 1531 (1973) [hereinafter Henderson, *Judicial Review of Design Choices*]; Twerski, Weinstein, Donaher & Piehler, *Shifting Perspectives in Products Liability: From Quality to Process Standards*, 55 *N.Y.U. L. Rev.* 347 (1980) [hereinafter Twerski, *Shifting Perspectives*]; Twerski, *supra* note 6.

⁹ In an early piece, one of the authors noted that warning litigation may present complex litigation problems. See Twerski, Weinstein, Donaher & Piehler, *The Use and Abuse of Warnings in Products Liability—Design Defect Litigation Comes of Age*, 61 *Cornell L. Rev.* 495 (1976) [hereinafter Twerski, *The Use and Abuse of Warnings*]. For an early perceptive critique of failure-to-warn doctrine, see R. Epstein, *Modern Products Liability Law* 93-118 (1980).

product function, aesthetics, durability, maintenance, and safety, the task of weighing such factors tests the limits of adjudication.¹⁰ Forced to evaluate alternative design possibilities by attaching values to such factors, and realizing that the values shift and change as the factors are rearranged in varying combinations, courts are tempted to give up the struggle and send most design cases to juries to decide on vague instructions. Responding to these difficulties in application, commentators¹¹ and courts¹²—and recently legislatures¹³—have adjusted the doctrinal

¹⁰ See authorities cited in note 8 *supra*. Numerous courts have recognized the difficulties that attend design litigation. See, e.g., *Dawson v. Chrysler Corp.*, 630 F.2d 950, 962-63 (3d Cir. 1980), cert. denied, 450 U.S. 959 (1981); *Knipper v. Ford Motor Co.*, 546 F.2d 993, 999 (D.C. Cir. 1976); *Bowman v. General Motors Corp.*, 427 F. Supp. 234, 241 & n.12 (E.D. Pa. 1977); *Owens v. Allis-Chalmers Corp.*, 83 Mich. App. 74, 79-81 & nn. 1-4, 268 N.W.2d 291, 294 & nn. 1-4 (1978); *Brown v. United States Stove*, 98 N.J. 155, 175-83, 484 A.2d 1234, 1245-49 (1984) (Schrieber, J., concurring); *Temple v. Wean United, Inc.*, 50 Ohio St. 2d 317, 326, 364 N.E.2d 267, 273 (1977); *Wilson v. Piper Aircraft Corp.*, 282 Or. 61, 66-67, 577 P.2d 1322, 1327-28 (1978); *Lewis v. Coffing Hoist Div.*, 515 Pa. 334, 346-47, 528 A.2d 590, 596 (1987) (Hutchinson, J., dissenting).

¹¹ See Fischer, *Products Liability—Functionally Imposed Strict Liability*, 32 Okla. L. Rev. 93, 114-16 (1979); Henderson, *Manufacturers' Liability for Defective Product Design: A Proposed Statutory Reform*, 56 N.C.L. Rev. 625, 630-32 (1978) [hereinafter Henderson, *Proposed Statutory Reform*]; Henderson, *Renewed Judicial Controversy Over Defective Product Design: Toward the Preservation of an Emerging Consensus*, 63 Minn. L. Rev. 773, 773-81 (1979) [hereinafter Henderson, *Defective Product Design*]; Schwartz, *Foreword: Understanding Products Liability*, 67 Calif. L. Rev. 435, 464-93 (1979); Twerski, *A Moderate and Restrained Federal Product Liability Bill: Targeting the Crisis Areas for Resolution*, 18 U. Mich. J.L. Ref. 575, 580-610 (1985); Wade, *On Product "Design Defects" and Their Actionability*, 33 Vand. L. Rev. 551, 566-75 (1980).

¹² See *Camacho v. Honda Motor Co., Ltd.*, 741 P.2d 1240, 1244-45 (Colo. 1987); *Troja v. Black & Decker Mfg. Co.*, 62 Md. App. 101, 107-09, 488 A.2d 516, 518-19 (1985); *Prentis v. Yale Mfg. Co.*, 421 Mich. 670, 689-91, 365 N.W.2d 176, 185-86 (1984); *Kallio v. Ford Motor Co.*, 407 N.W.2d 92, 94-96 (Minn. 1987); *Macri v. Ames McDonough Co.*, 211 N.J. Super. 636, 639-41, 512 A.2d 548, 550-51 (1986); *Turner v. General Motors Corp.*, 584 S.W.2d 844, 847 (Tex. 1979).

¹³ Many jurisdictions have passed "state-of-art" statutes which bar recovery when defendants can show that their product designs conformed to the best available technology known at the time of distribution. See, e.g., *Ariz. Rev. Stat. Ann.* § 12-683.1 (1982); *Ark. Stat. Ann.* § 16-116-104 (1979); *Colo. Rev. Stat.* § 13-21-403(a) (1977); *Idaho Code* § 6-1406 (1980); *Ind. Code* § 33-1-1.5-4 (1982); *Iowa Code* § 668.12 (1986); *Kan. Stat. Ann.* § 60-3307 (1986); *Ky. Rev. Stat. Ann.* § 411.310(2) (Baldwin 1979 & Supp. 1984); *La. Rev. Stat. Ann.* § 9:2800.59 (West 1988); *Mich. Comp. Laws* § 600.2946(3) (1978); *Neb. Rev. Stat.* §§ 25-21, 182 (1978); *N.H. Rev. Stat. Ann.* § 507-D:4 (1988); *N.J. Stat. Ann.* § 2A:58C-1.3.a.(1) (West 1987); *Ohio Rev. Code Ann.* § 2307.75(F) (Page's Supp. 1989); *Tenn. Code Ann.* § 29-28-105(b) (1978); *Wash. Rev. Code Ann.* § 7.72.050 (Supp. 1985). Section 203(c)(1) of the proposed Uniform Product Safety Act of 1988 (proposed draft 1988) also provides for a state-of-art defense.

Several states provide that compliance with governmental standards creates a presumption of nondefectiveness. See, e.g., *Colo. Rev. Stat.* § 13-21-403(b) (1977); *Kan. Stat. Ann.* § 60-3304 (1981); *N.D. Cent. Code* § 28-01.1-05(3) (1979); *Tenn. Code Ann.* § 29-28-104 (1978). Over 25 states have passed legislation limiting punitive damages. For a listing of these states, see J. Henderson & A. Twerski, *Products Liability: Problems and Process* 57-59 (Supp. 1989). These statutes are of particular significance in design litigation because design cases are highly vulnerable to punitive damage claims. See Owens, *Problems in Assessing Punitive*

bases of liability to make design cases more adjudicable. Whether these efforts have succeeded is debatable.¹⁴ But few observers seriously question the premise that workable solutions will come, sooner or later, from appropriate adjustments in the controlling doctrine.¹⁵

In contrast, the failure-to-warn claim has all but escaped searching analysis. A flurry of commentary¹⁶ did follow the decision of a major state appellate court which held that a manufacturer could be liable for failing to warn about a risk that was scientifically unknowable at the time the product was marketed.¹⁷ And recently, several writers have complained that it is too easy to make out a *prima facie* failure-to-warn case.¹⁸ But generally the unspoken assumption is that the all-purpose negligence formula works well in failure-to-warn cases.

The perception that all is well is fueled by the unique character of failure-to-warn claims. With allegedly defective designs, defendants often can show that an alternative design suggested by the plaintiff would have made things worse, and therefore courts hearing design cases must conduct elaborate cost-benefit analyses to test these claims. By contrast, in failure-to-warn cases the common assumption is that warnings can

Damages Against Manufacturers of Defective Products, 49 U. Chi. L. Rev. 1, 11 (1982).

¹⁴ Some observers question the ability of the tort reform movement to make a significant impact on the excesses of the present litigation system. See, e.g., Epstein, *The Risks of Risk/Utility*, 98 Ohio St. L.J. 469 (1987) (arguing that risk-utility is hopelessly open-ended); Priest, *The Current Insurance Crisis and Modern Tort Law*, 96 Yale L.J. 1521, 1587-90 (1987) (questioning long-term effectiveness of current tort law reform); Rabin, *Some Reflections on the Process of Tort Reform*, 25 San Diego L. Rev. 13, 42-43 (1988) (arguing that substantive law reform is not likely to be significant); Twerski, *The Joint Tortfeasor Legislative Revolt: A Rational Response to the Critics*, 22 U.C. Davis L. Rev. 1125, 1133-34 (1989) (arguing that structure of tort liability system resists legislative change).

¹⁵ The authors, who have been among the sharpest critics of open-ended design litigation, believe that design litigation has begun to come into focus. See authorities cited in note 11 *supra*. The belief that design litigation would ultimately come under firm judicial control has been confirmed by a recent empirical study. See Henderson & Eisenberg, *The Quiet Revolution in Products Liability: An Empirical Study of Legal Change*, 37 UCLA L. Rev. 479 (1990). For a description of this study, see notes 194-95 *infra*.

¹⁶ See, e.g., Danzon, *Tort Reform and the Role of Government in Private Insurance Markets*, 13 J. Legal Stud. 517 (1984); Henderson, *Coping with the Time Dimension in Products Liability*, 69 Calif. L. Rev. 919 (1981); Page, *Generic Product Risks: The Case Against Comment k and for Strict Liability*, 58 N.Y.U. L. Rev. 853 (1983); Schwartz, *Products Liability, Corporate Structure, and Bankruptcy: Toxic Substances and the Remote Risk Relationship*, 14 J. Legal Stud. 689 (1985).

¹⁷ See *Beshada v. Johns-Manville Prods. Corp.*, 90 N.J. 191, 202-04, 447 A.2d 539, 545-46 (1982).

¹⁸ See, e.g., R. Epstein, *supra* note 9, at 93; P. Huber, *Liability: The Legal Revolution and Its Consequences* 51-58 (1988); Priest, *Products Liability Law and the Accident Rate*, in *Liability: Perspectives and Policy*, at 217-20 (R. Litan & C. Winston eds. 1988); Schwartz, *Proposals for Products Liability Reform: A Theoretical Synthesis*, 97 Yale L.J. 353, 398 (1988); Report of the Tort Policy Working Group on the Causes, Extent and Policy Implications of the Current Crisis in Insurance Availability and Affordability, at 32 n.25 (February 1986) (on file at New York University Law Review).

often be improved upon but can never be made worse; that is, the issue at stake is always whether the defendant ought to have supplied consumers with more, and by definition better, information about product risks.¹⁹ Whether the defendant should have supplied more information seems, therefore, an intuitively manageable, eminently adjudicable question. The problems in the failure-to-warn area, if there be any, seem capable of being solved by marginal adjustments of judicial standards.²⁰

We believe, however, that the shared wisdom regarding the negligence standard in failure-to-warn cases overlooks two serious flaws. First, there are doctrinal confusions that result from some courts' misguided attempts to distinguish (and apply) a strict liability cause of action for failure to warn. These confusions, which inhibit the law from reaching its objectives, need to be eliminated. Lkening these doctrinal problems to weeds in a garden, Part I urges courts or legislatures to pull them. Second, and more importantly, we show that even a weed-free failure-to-warn garden may not be beneficially productive. Part II, accordingly, demonstrates that applying even well-framed negligence doctrine to test the adequacy of product warnings provides little more than an occasion for mouthing rhetoric. Concepts such as risk foreseeability, risk-utility balancing, and proximate causation are so devoid of content in the failure-to-warn context that they cannot hope to test the bona fides of the plaintiff's claim. We conclude that even a well-tended failure-to-warn garden probably cannot support growth. The real problem, it turns out, is not with the weeds. It is steeped in the soil of negligence itself.

Can anything be done to put things right with respect to this second, more profound difficulty? We have no remedies that can be set in place easily. The problems we describe may defy solution. Nevertheless, we believe it is necessary to take a hard look at what is happening in failure-to-warn cases. For one thing, even if the situation in products cases is beyond meaningful remedy, other areas relying on failure-to-warn theories may find what we have to say useful. For another, it may yet be possible to develop solutions which lie in the middle ground between the trivial and the draconian. Because we have reason to believe that courts will be increasingly receptive to reasonable proposals for change, we feel

¹⁹ See, e.g., *Moran v. Fabergé, Inc.*, 273 Md. 538, 544, 332 A.2d 11, 15 (1975); *Frcund v. Cellofilm Properties, Inc.*, 87 N.J. 229, 238 n.1, 432 A.2d 925, 930 n.1 (1981); *Dambacher v. Mallis*, 336 Pa. Super. 22, 58 n.7, 485 A.2d 408, 427 n.7 (1984); *Wheeler v. General Tire & Rubber Co.*, 142 Wis. 2d 798, 811-13, 419 N.W.2d 331, 336-37 (Wis. Ct. App. 1987). For early discussions noting the comparative ease of proving a warning case over a design case, see *Noel, Products Defective Because of Inadequate Directions or Warnings*, 23 Sw. L.J. 256, 260-63 (1969).

²⁰ For attempts to introduce such marginal adjustments in failure-to-warn law without attacking the problems discussed in this paper, see Model Uniform Prod. Liab. Act § 104(c), 44 Fed. Reg. 62,714 (1979) [hereinafter MUPLA].

bound to advance our own proposals. We urge that courts (and if not courts, legislatures) adopt firmer, nontrivial guidelines for the adjudication of product warnings cases. We offer these guidelines with the hope that from them may evolve a reasoned set of principles with which judges can more fairly and effectively adjudicate warnings claims.

I

WEEDING THE FAILURE-TO-WARN GARDEN

As we shall demonstrate in Part II, negligence doctrine, even if free from errors, will not rescue failure-to-warn litigation from its inherent lawlessness. However, these errors cannot be ignored. Bad doctrine serves to increase exponentially the unfairness in a cause of action that is already unformed and unbounded. We thus begin by turning to fundamental doctrinal errors that have infected failure-to-warn case law in many jurisdictions.

A. *The "Strict Liability v. Negligence" Debate*

Modern American products liability started off on the wrong doctrinal foot twenty-five years ago and has never regained its stride. To understand the nature of the problem, one must examine it in historical context. The American Law Institute gave birth to this analytic confusion with the highly influential section 402A of the Restatement (Second) of Torts, which states that strict liability applies equally well to cases involving manufacturing defects, design defects, and failures to warn.²¹ Strict liability can be applied coherently in manufacturing defect cases because a product's defectiveness can be determined without resort to negligence-oriented cost-benefit balancing.²² But in both defective-design and failure-to-warn cases, cost-benefit balancing is inevitably required to determine product defectiveness.²³ Because cost-benefit balancing is also

²¹ The text of § 402A does not explicitly state that it applies to design and warnings claims. But its comments, especially comments h, i, j, k, and p, make clear that the drafters intended that result. And courts ever since have read it this way. See, e.g., *Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 132-33, 501 P.2d 1153, 1162, 104 Cal. Rptr. 433, 441-42 (1972).

²² See MUPLA, *supra* note 20, § 104(A) & comments. Many courts have recognized that the legal standard for manufacturing defects is relatively simple as compared to generically dangerous products. See, e.g., *Caterpillar Tractor Co. v. Beck*, 593 P.2d 871, 880 (Alaska 1979); *Phipps v. General Motors Corp.*, 278 Md. 337, 344, 363 A.2d 955, 959 (1976); *Prentis v. Yale Mfg. Co.*, 421 Mich. 670, 683-84, 365 N.W.2d 176, 182 (1984).

²³ Most of the recent literature in products liability has focused on the reasonableness test and the appropriateness of risk-utility balancing as a method for establishing the existence of defects. See Birnbaum, *Unmasking the Test for Design Defect: From Negligence to [Warranty] to Strict Liability to Negligence*, 33 Vand. L. Rev. 593, 618-31 (1980); Epstein, *Products Liability: The Search for the Middle Ground*, 56 N.C.L. Rev. 643, 648-54 (1978); Henderson, *Defective Product Design*, *supra* note 11, at 773-81; Henderson, *Expanding the Negligence Concept*, *supra* note 8, at 482-522; Henderson, *Judicial Review of Design Choices*, *supra* note

at the heart of negligence,²⁴ it is no easy matter in design and warning cases to discover a difference between strict liability and negligence.

Having adopted strict liability across the board, courts found themselves trapped by their own rhetoric. Strict liability, as everyone knows, is a doctrine more favorable to plaintiffs than is negligence. Thus, courts which found that in the midst of "strict liability" cases they were knee-deep in traditional negligence balancing, undertook a prolonged search for the strict liability "edge." After years of frustration, many courts have finally abandoned the search and declared that, for all intents and purposes, strict liability, as applied to generically dangerous product cases, was simply negligence by another name.²⁵ However, many courts continue to insist that strict liability provides some practical benefit to claimants that negligence doctrine does not.²⁶ In doing so they have been forced either to articulate outrageous positions that both deeply of-

8, at 1552-73; Henderson, Proposed Statutory Reform, *supra* note 11, at 630-32; Hoenig, Product Designs and Strict Tort Liability: Is There a Better Approach?, 8 Sw. U.L. Rev. 109, 112-22 (1976); Keeton, Products Liability—Design Hazards and the Meaning of Defect, 10 Cumb. L. Rev. 293, 310-13 (1979); Twerski, Shifting Perspectives, *supra* note 8, at 347-58; Vandall, "Design Defect" in Products Liability: Rethinking Negligence and Strict Liability, 43 Ohio St. L.J. 61, 72-75 (1982); Note, Products Liability—Negligence Presumed: An Evolution, 67 Tex. L. Rev. 851, 859-64 (1989); see generally Note, Strict Products Liability and the Risk-Utility Test for Design Defect: An Economic Analysis, 84 Colum. L. Rev. 2045 (1984).

Most courts have adopted risk-utility as either an exclusive or an alternative ground of liability. See, e.g., *Dreisonstok v. Volkswagen, A.G.*, 489 F.2d 1066, 1071-73 (4th Cir. 1974) (exclusive ground); *Caterpillar Tractor*, 593 P.2d at 885 (alternative ground); *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 432, 573 P.2d 443, 455-56 (1978) (alternative ground); *Camacho v. Honda Motor Co.*, 741 P.2d 1240, 1246-49 (Colo. 1987) (exclusive ground); *Prentis*, 421 Mich. at 686-90, 365 N.W.2d at 185-86 (exclusive ground); *Bilotta v. Kelley Co., Inc.*, 346 N.W.2d 616, 622 (Minn. 1984) (exclusive ground); *Lewis v. Bucyrus-Erie, Inc.*, 622 S.W.2d 920, 927 (Mo. 1981) (exclusive ground); *Thibault v. Sears, Roebuck & Co.*, 118 N.H. 802, 807, 395 A.2d 843, 846 (1978) (alternative ground); *Michalko v. Cooke Color & Chem. Corp.*, 91 N.J. 386, 394, 451 A.2d 179, 183 (1982) (exclusive ground); *Cover v. Cohen*, 61 N.Y.2d 261, 266-67, 461 N.E.2d 864, 866, 473 N.Y.S.2d 378, 386 (1983) (exclusive ground); *Wilson v. Piper Aircraft Corp.*, 282 Or. 61, 67-68, 577 P.2d 1322, 1326 (1978) (exclusive ground); *Morningstar v. Black & Decker Mfg. Co.*, 162 W. Va. 857, 887-90, 253 S.E.2d 666, 682-83 (1979) (exclusive ground). Federal statutes also use the reasonableness concept in setting design standards. See, e.g., National Traffic and Motor Vehicle Safety Act, 15 U.S.C. § 1392(f) (1988); Consumer Product Safety Act, 15 U.S.C. §§ 2056(a), 2058(c) (1988).

²⁴ In perhaps the most famous formulation of the negligence concept, in *United States v. Carroll Towing Co.*, 158 F.2d 169, 173 (2d Cir. 1947), Judge Learned Hand observed: "[The defendant's] duty . . . to provide against resulting injuries is a function of three variables: (1) The probability [of an accident]; (2) the gravity of the resulting injury, if [an accident occurs]; (3) the burden of adequate precautions."

²⁵ See, e.g., *Gauthier v. AMF, Inc.*, 788 F.2d 634, 637 (9th Cir. 1986); *Flaminio v. Honda Motor Co.*, 733 F.2d 463, 467 (7th Cir. 1984); *Gordon v. Niagara Mach. & Tool Works*, 574 F.2d 1182, 1190 (5th Cir. 1978); *St. Germain v. Husgvarna Corp.*, 544 A.2d 1283, 1285 (Me. 1988); *Prentis*, 421 Mich. at 687-88, 365 N.W.2d at 180-82 (1986); *Rainbow v. Albert Elia Bldg. Co.*, 49 A.D.2d 250, 252-53, 373 N.Y.S.2d 928, 930-31 (1975); *Memphis Bank & Trust Co. v. Water Serv.*, 758 S.W.2d 525, 528 (Tenn. Ct. App. 1986).

²⁶ See cases cited in note 28 *infra*.

fend traditional notions of moral responsibility and prevent tort law from achieving its objectives, or to create verbal distinctions that have little practical consequence other than to confuse litigants and commentators. We turn first to an example of the former type of error, and then to some examples of the latter.

1. *Liability for Failing to Warn About Unknowable Risks*

Courts might distinguish between product-oriented strict liability theory and conduct-oriented negligence theory by dispensing with the reasonable foreseeability standard which lies at the heart of negligence theory. A plaintiff could then recover for damages caused by a defective product even though the risk that the plaintiff claims should have been warned against was unforeseeable at the time the product was distributed. Given this distinction, a negligence standard, with its focus on the conduct of the manufacturer, would impose liability for failure to warn only when the defendant knew, or should have known, of the relevant information.²⁷ In contrast, a reasonable manufacturer could be found liable under a strict liability standard even if he had no access to the information that later became available.²⁸

However tempting it may be for courts to hold distributors "strictly" liable for unknowable risks, doing so prevents the achievement of either of two contrasting objectives underlying tort law, as identified by the majority of commentators. One view regards tort law as essentially enhancing non-instrumental norms of fairness which mediate between conflicting individual preferences.²⁹ The other view interprets tort

²⁷ See Restatement (Second) of Torts § 289 comment j (1965) (failure to investigate risk of harm constituted actionable negligence where conditions were such that reasonable person would investigate); 3 The Law of Torts, *supra* note 2, § 16.5 (negligence centers on actual or reasonable foreseeability).

²⁸ See Keeton, Products Liability—Inadequacy of Information, 48 Tex. L. Rev. 398, 404 (1970) (seller should be liable even if she neither knew, could have known, nor ought to have known unreasonable risk actually existed); see also *Miller v. Upjohn Co.*, 465 So. 2d 42, 45 (La. Ct. App.) (strict liability holds for product liability cases, except for drug cases, regardless of manufacturer's knowledge of risk), cert. denied, 467 So. 2d 533 (La. 1985); *Bilotta v. Kelley Co.*, 346 N.W.2d 616, 622 (Minn. 1984) ("The distinction between strict liability and negligence in design defect and failure-to-warn cases is that in strict liability, knowledge of the condition of the product and the risks involved in that condition will be imputed to the manufacturer, whereas in negligence these elements must be proven."); *Johnson v. Clark Equip. Co.*, 274 Or. 403, 417 n.12, 547 P.2d 132, 142 n.12 (1976) (foreseeability not appropriate consideration when determining whether manufacturer should be liable without fault), rev'd on other grounds, 292 Or. 590, 642 P.2d 624 (1982); *Roach v. Kononen*, 269 Or. 457, 465, 525 P.2d 125, 129 (1974) (designer strictly liable even though his actions were entirely reasonable considering his knowledge at time of product design and sale).

²⁹ See Fletcher, Fairness and Utility in Tort Theory, 85 Harv. L. Rev. 537, 540-41 (1972) (identifying non-instrumental "paradigm of reciprocity" as one underlying concern of tort law).

law as essentially furthering instrumental, allocative efficiency objectives, which help competitive markets put resources to their highest uses without attempting to mediate between individual preferences.³⁰

If we assume, under the fairness view, that a basic postulate of legal duty is that the conduct the law seeks to induce is capable of being performed and, as a corollary, that the law eschews imposing duties to perform impossible tasks,³¹ then imposing liability for failure to warn of unknowable risks is grossly unfair.³² On the other hand, imposing liability for failing to warn of scientifically unknowable risks also strikes hard against the efficiency objective. As a number of commentators have noted, manufacturers cannot, by hypothesis, insure against risks that even reasonably careful persons do not know exist.³³ As a consequence, when strict liability is imposed retroactively for risks about which the defendants could not have known at distribution, defendants can only charge the losses against earnings or capital, or go out of business. Either way, inefficiencies result. Later entrants to the market enjoy a decided advantage over earlier entrants who are saddled with obligations that they could not insure against or avoid by exercising reasonable care. A rule that penalizes longevity and contradicts fundamental rules of risk spreading by asking the impossible of manufacturers is counterproductive³⁴ and likely headed for oblivion. Negligence, not strict liability, should, and eventually will, govern the time dimension issues in products liability litigation.

Although strict liability here serves neither fairness nor efficiency, a small cadre of courts have nevertheless followed the lead of the New Jersey Supreme Court³⁵ and have imposed liability for defendants' failure

³⁰ See generally G. Calabresi, *The Cost of Accidents* (1970) (goal of accident law is to minimize costs both of accidents and of their avoidance).

³¹ See Henderson, *Process Constraints in Tort*, 67 *Cornell L. Rev.* 901, 914-15 (1982).

³² One might argue that strict liability does not require changes in primary conduct—the actor held strictly liable is not expected to invest further in safety precautions but rather merely to insure against losses that are not worth preventing. But when risks are unknowable, they cannot be insured against. See note 33 and accompanying text *infra*. Moreover, the concept of *failure* to warn unavoidably implies the failure by the defendant to do something he should have and could have done.

³³ See, e.g., Schwartz, *supra* note 16, at 736 (concluding that it is both unfair and inefficient to impose liability for risks which would not be revealed fully by cost-effective research).

³⁴ See Sales, *The Duty to Warn and Instruct for Safe Use in Strict Tort Liability*, 13 *St. Mary's L.J.* 521, 546 (1982) (imposition of strict liability for failure to warn denies public of valuable products); see also Wheeler & Kress, *A Comment on Recent Developments in Judicial Imputation of Post-Manufacture Knowledge in Strict Liability Cases*, 6 *J. Prod. Liab.* 127, 137-40 (1983) (arguing that imputation of post-manufacture knowledge in warning cases will increase disproportionately the liability of producers of food and chemical products over mechanical products).

³⁵ *Beshada v. Johns-Manville Prods. Corp.*, 90 N.J. 191, 204, 447 A.2d 539, 546 (1982) (rejecting "state of the art" defense in strict liability cases).

to warn of risks which were scientifically unknowable when the product was marketed.³⁶ In a later decision, the New Jersey court did restrict its earlier holding to asbestos cases.³⁷ Thus, under current New Jersey law, for all other warnings cases predicated on strict liability, the defendant now bears "the burden of proving that the information was not reasonably available or obtainable and that it therefore lacked actual or constructive knowledge of the defect."³⁸ However, it is questionable whether this partial retreat is meaningful. Given that defendants are unlikely to carry the burden of proving a negative, the modified New Jersey rule may be the functional equivalent of true strict liability. Whatever the label, the point is the same. Liability for unknowable risks is a weed that should not be allowed to take root in the failure-to-warn garden.

2. *The Semantic Disputes*

a. *The "Product v. Conduct" Imbroglia.* Some courts in failure-to-warn cases distinguish between strict liability and negligence on the ground that the former focuses on the quality of the product, while the latter focuses on the conduct of the defendant.³⁹ Courts that speak in these terms employ such delphic language that it is often difficult to identify the point they are trying to make.

³⁶ See, e.g., *Kisor v. Johns-Manville Corp.*, 783 F.2d 1337, 1339, 1342 (9th Cir. 1986) (applying Washington law); *In re Hawaii Fed. Asbestos Cases*, 699 F. Supp. 233, 236 (D. Haw. 1988) (applying Hawaii law); *Hayes v. Ariens Co.*, 391 Mass. 407, 413, 462 N.E.2d 273, 277 (1984); *Elmore v. Owens-Illinois, Inc.*, 673 S.W.2d 434, 438 (Mo. 1984) (en banc); *Carreter v. Colson Equip. Co.*, 346 Pa. Super. 95, 101, 499 A.2d 326, 330-31 (1985). Courts in several pre-*Beshada* cases held defendants strictly liable for information which was unavailable to reasonable manufacturers. See note 28 supra; see also *Jackson v. Coast Paint & Lacquer Co.*, 499 F.2d 809, 812 (9th Cir. 1974) (applying Restatement (Second) of Torts § 402A to hold defendant's reasonable belief immaterial in strict liability). A comprehensive compilation of the case law can be found in Campbell & Edwards, *The Duty to Warn and the Duty to Inform: Marketing Defects in Strict Products Liability* 3-9 (Defense Research Monograph No. 6, 1989).

³⁷ *Feldman v. Lederele Laboratories*, 97 N.J. 429, 455, 479 A.2d 374, 388 (1984). *Feldman* was later upheld against an equal protection attack. See *In re Asbestos Litigation*, 829 F.2d 1233, 1238 (3d Cir. 1987) (denial of "state of the art" defense to asbestos manufacturer neither violated any fundamental rights nor created a suspect classification), cert. denied, 485 U.S. 1029 (1988).

³⁸ *Feldman*, 97 N.J. at 455-56, 479 A.2d at 388.

³⁹ See, e.g., *Falk v. Keene Corp.*, 53 Wash. App. 238, 244-46, 767 P.2d 576, 580-81 ("[Strict liability] focuses on a manufacturer's defective product, the burden of an alternative design, and consumer expectations. As such, it is a fundamentally and irreconcilably different analysis from negligence, which focuses on a manufacturer's conduct."), aff'd, 113 Wash. 2d 645, 782 P.2d 974 (1989) (en banc); see also *Woodill v. Parke Davis & Co.*, 79 Ill. 2d 26, 34, 402 N.E.2d 194, 198 (1980) (failure to warn requires scienter, but "strict liability has been upheld as a distinguishable doctrine from its counterpart in negligence, based on the fact that it is the inadequacy of the warning that is looked to, rather than the conduct of the particular manufacturer . . .").

Perhaps these courts sense that a negligence standard, which speaks to reasonable behavior, will be too easy on defendants, whereas the product-oriented strict liability theory is, appropriately, less forgiving. Alternatively, such courts may believe that a "reasonable manufacturer" standard would not be sufficiently demanding of the smaller manufacturer, who may be unable to invest heavily in research and development.

Assuming we are correct in our observations, these underlying concerns do not warrant so fine a distinction between product and conduct. Concern that a negligence standard may be too forgiving is clearly misplaced. The law of negligence is based on the hypothetical reasonable person.⁴⁰ The test is objective; subjective factors peculiar to individual defendants generally do not excuse liability.⁴¹ Moreover, manufacturers are held to the standard of investigation and knowledge of an expert in the field.⁴² Thus, courts already have a specific rule, devised long ago in negligence law, to assure that ignorance will not be excused where information was reasonably attainable by those with sophisticated expertise.

Perhaps the only practical difference between negligence and strict liability cases is that juries occasionally will be harder on defendants when applying a strict liability instruction than they would be when holding them to the standard of an expert in the field. Nonetheless, considering the confusion that results from the coexistence of two such closely related theories, the "product versus conduct" game is not worth the candle. Once again, traditional negligence should emerge as the prevailing theory in failure-to-warn cases; the product/conduct distinction is another weed which needs to be pulled.

b. The Relevance of Contributory Fault. Another possible reason for framing failure-to-warn claims in terms of strict liability is related to the role of plaintiff's contributory fault in products litigation. Some courts have held that contributory fault, which is relevant in the negligence context, is not a defense to a strict liability claim.⁴³ And many more have held that, even if contributory fault is a defense in strict liability, a plaintiff's failure to inspect a product for defects does not count as contributory fault.⁴⁴ At bottom, courts' different treatments of these af-

⁴⁰ See Restatement (Second) of Torts § 291 comment c (1965).

⁴¹ See *id.* § 289 comment n; see also note 42 *infra*.

⁴² See 4 *The Law of Torts*, *supra* note 2, § 28.4.

⁴³ See, e.g., *Lippard v. Houdaille Indus.*, 715 S.W.2d 491, 493 (Mo. 1986) (*en banc*); *Bowling v. Heil Co.*, 31 Ohio St. 3d 277, 285, 511 N.E.2d 373, 378 (1987); *Kirkland v. General Motors Corp.*, 521 P.2d 1353, 1367 (Okla. 1974); *Staymates v. ITT Holub Indus.*, 364 Pa. Super. 37, 47, 527 A.2d 140, 145 (1987).

⁴⁴ See, e.g., *Murray v. Fairbanks Morse*, 610 F.2d 149, 161-62 n.14 (3d Cir. 1979) (applying law of Virgin Islands); *Simpson v. General Motors Corp.*, 108 Ill. 2d 146, 152, 483 N.E.2d 1, 3 (1985).

firmative defenses reflect a difference of opinion as to whether product-related risks are best borne entirely by the manufacturers who have created them or should be partially borne by negligent users and consumers.⁴⁵ But why the answer to this question should necessarily depend on whether the case is styled in negligence or strict liability is not clear. A court could just as easily work within the traditional negligence framework in a failure-to-warn case and remain free to resolve the issue of product-related contributory fault as it sees fit.⁴⁶ The policy ground for absolving the plaintiff from some aspect of fault need not be tied formally to the requisites of the plaintiff's *prima facie* case.

c. *Summing Up the Semantic Dispute: The Importance of Terminology.* Many courts that acknowledge negligence as the substantive basis of failure-to-warn liability nevertheless insist on behaving as though strict liability were somehow being applied.⁴⁷ Thus, courts instruct juries that an important issue in the plaintiff's strict liability claim is whether the product was defective, and that defectiveness depends, in turn, on whether a reasonable manufacturer would have known of the risk and would have warned against it.⁴⁸ So long as everybody understands that nothing more than a word game is being played, there is nothing inherently wrong in defining strict liability for product defects in negligence

⁴⁵ Compare Fischer, *Products Liability—Applicability of Comparative Negligence*, 43 Mo. L. Rev. 431, 432-33 (1978) (arguing that introduction of comparative negligence defense in products liability cases would encourage consumer carefulness) and Schwartz, *Strict Liability and Comparative Negligence*, 42 Tenn. L. Rev. 171, 179 (1976) (claiming that comparative negligence in products liability cases justifiably places costs on individual user) with Twerski, *The Use and Abuse of Comparative Negligence in Products Liability*, 10 Ind. L. Rev. 797, 829-30 (1977) (arguing for limited application of comparative negligence in products liability law). See also Wade, *Products Liability and Plaintiff's Fault—The Uniform Comparative Fault Act*, 29 Mercer L. Rev. 373, 391 (1978) (Uniform Act would allow introduction of comparative negligence into products liability law).

⁴⁶ See, e.g., *Wheeler v. John Deere Co.*, 862 F.2d 1404, 1412 (10th Cir. 1988) (applying Kansas law to uphold jury instruction under which manufacturer has a strict duty of care and consumer a duty of ordinary care); *Daly v. General Motors Corp.*, 20 Cal. 3d 725, 737, 575 P.2d 1162, 1168-69, 144 Cal. Rptr. 380, 387 (1978) (adopting comparative fault for products liability cases after reviewing relevant policies and refusing to be bound by linguistic labels); *Bell v. Jet Wheel Blast*, 462 So. 2d 166, 171-72 (La. 1985) (stating that comparative fault will be used in a products liability case when reduction of award realistically will promote user care without drastically reducing manufacturers' incentive to make a safer product).

⁴⁷ See, e.g., *Payne v. Soft Sheen Prods., Inc.*, 486 A.2d 712, 725-26 (D.C. 1985) (cause of action for injuries from defective product could sound either in negligence or strict liability); *Jarrell v. Monsanto Co.*, 528 N.E.2d 1158, 1168 n.7 (Ind. Ct. App. 1988) (noting difficulty of distinguishing between negligence and strict liability in failure-to-warn cases); *Frederick v. Niagara Mach. & Tool Works*, 107 A.D.2d 1063, 1064, 486 N.Y.S.2d 564, 565 (1985) (little difference between failure-to-warn cases under strict liability or negligence).

⁴⁸ See, e.g., *Finn v. G.D. Searle & Co.*, 35 Cal. 3d 691, 698, 677 P.2d 1147, 1151-52, 200 Cal. Rptr. 870, 874 (1989) (upholding jury verdict based on instruction that products liability defendant had duty to inform medical profession if it "knew or should have known" of risks).

terms. Indeed, if everybody were likely to understand that much, it would do no real harm to call this "thunderbolt liability" or "gonzo liability."⁴⁹ However, people tend to give real meaning to differences in terminology; they forget that word games are being played. Thus, although mixing negligence and strict liability concepts is often a game of semantics, the game has more than semantic impact—it breeds confusion and, inevitably, bad law.

B. *The Causation Presumption*

Many courts have held that when the defendant fails to provide an adequate warning, it is presumed that such a warning would have been read and heeded by the user had it been given.⁵⁰ This presumption serves to get the plaintiff over the hurdle of establishing causation in all but the weakest of cases. The rationale most often given for the presumption is that it is a mirror image of a presumption that defendants enjoy under comment j to section 402A of the Restatement (Second) of Torts.⁵¹ That comment provides:

Where warning is given, the seller may reasonably assume that it will be read and heeded; and a product bearing such a warning, which is safe for use if it is followed, is not in defective condition, nor is it unreasonably dangerous.⁵²

It is argued that if a seller is entitled to a presumption that a warning will be read and heeded, a plaintiff should be entitled to the converse causation presumption when no warning, or an inadequate warning, is given.⁵³ We will consider in a later discussion the substantive merits of granting

⁴⁹ As Humpty Dumpty, in *Through the Looking Glass*, observed: "When I use a word . . . it means just what I choose it to mean — neither more nor less." L. Carroll, *The Annotated Alice: Alice's Adventures in Wonderland & Through The Looking Glass* 269 (C. Potter ed. 1960).

⁵⁰ See, e.g., *Benoit v. Ryan Chevrolet*, 428 So. 2d 489, 493 n.8 (La. Ct. App. 1982); *Cunningham v. Charles Pfizer & Co.*, 532 P.2d 1377, 1382 (Okla. 1974); *Menard v. Newhall*, 135 Vt. 53, 54, 373 A.2d 505, 506 (1977); see also 3 *American Law of Products Liability* § 32:74, at 118 (3d ed. 1987) (stating that "[w]here the product has no warning, it may be presumed that the plaintiff would have read and heeded the proper warning had one been given," and citing cases).

⁵¹ See, e.g., *Reyes v. Wyeth Laboratories*, 498 F.2d 1264, 1281 (5th Cir.) (applying Texas law), cert. denied, 419 U.S. 1096 (1974); *Nissen Trampoline Co. v. Terre Haute First Nat'l Bank*, 332 N.E.2d 820, 826-27 (Ind. Ct. App. 1975), rev'd on procedural grounds, 265 Ind. 457, 358 N.E.2d 974 (1976); *Wooderson v. Ortho Pharmaceutical Corp.*, 235 Kan. 387, 410, 681 P.2d 1038, 1057, cert. denied, 469 U.S. 965 (1984); *Wolfe v. Ford Motor Co.*, 6 Mass. App. Ct. 346, 352, 376 N.E.2d 143, 147 (1978); *Butz v. Werner*, 438 N.W.2d 509, 517 (N.D. 1989); *Seley v. G.D. Searle & Co.*, 67 Ohio St. 2d 192, 200, 423 N.E.2d 831, 838 (1981); *Technical Chem. Co. v. Jacobs*, 480 S.W.2d 602, 606 (Tex. 1972). But see *Potthoff v. Alms*, 583 P.2d 309, 311 (Colo. Ct. App. 1978) (affirming trial court's refusal to instruct jury that if a warning is given, it will be heeded).

⁵² Restatement (Second) of Torts § 402A comment j (1965).

⁵³ See cases cited in note 50 supra.

the plaintiff this causation presumption.⁵⁴ Our more limited objective here is to show that the logic of the courts that rely formally on comment j is seriously flawed. Plaintiffs may deserve a presumption regarding causation, but such a presumption cannot be derived logically from comment j.

A closer analysis of the causation presumption is required to see why it does not derive logically from comment j. If a risk is not obvious to a substantial number of users and consumers, and a proper warning will suffice to bring that risk to the attention of most such users and consumers, then the defendant owes a duty to provide such a warning.⁵⁵ Once such a warning is provided, the product is no longer in a defective condition, as it is not unreasonably dangerous to consumers. And when the product is reasonably safe and nondefective, the question of causation in the particular case involving the particular plaintiff is never reached. Thus, when comment j says that "the seller may reasonably assume," it is not referring to a presumption that any individual plaintiff actually did read and heed the warning; to the contrary, it is certain from the outset that at least *some* consumers will not have done so.⁵⁶ Rather, comment j says that if the warning is adequate and is likely to reach many, even if not all, consumers, then, for purposes of determining whether the defendant has discharged his underlying duty to warn, it reasonably may be assumed that consumers will act on the warning. Once the conclusion is reached that the defendant has satisfied this duty, the plaintiff's claim fails at the threshold and the question of individualized causation never arises.

To insist that any particular plaintiff should enjoy a presumption of individualized causation when adequate warnings are not given because the defendant enjoys such a presumption when warnings are given is to rely on false logic. Comment j never addresses the causation issue, as such, nor does it create any presumption of individualized causation benefiting defendants. All it says is that, if the defendant provides an adequate warning, he fulfills his duty of care, and that, in determining the adequacy of the warning, courts will examine its likely effects on reasonable consumers generally, not the actual effects on particular consumers. Thus, to rely on comment j to derive a presumption of actual, individual causation for plaintiffs in failure-to-warn cases is to commit serious error.

⁵⁴ See text accompanying notes 246-50 *infra*.

⁵⁵ See Prosser & Keeton, *supra* note 6, § 96 at 685-86, 697; 4 The Law of Torts, *supra* note 2, § 27.16.

⁵⁶ See Schwartz & Driver, Warnings in the Workplace: The Need for Synthesis of Law and Communication Theory, 52 U. Cin. L. Rev. 38, 51 (1983).

*C. Doctrinal Errors Relating to the Obviousness
of Product-Related Risks*

The general rule in American products law is that defendants owe no duty to warn of risks that are obvious to normal, reasonable users and consumers.⁵⁷ Warnings are required with respect to hidden risks, but obvious risks are better left to consumers themselves, or to product designers, to identify and minimize.⁵⁸ Perhaps more than any other aspect of warnings doctrine, this traditional rule should help courts cull unworthy failure-to-warn claims from the worthy. And yet, in spite of its universal acceptance as a general proposition, the rule regarding obvious risks is beset with problems in its application. One of these difficulties—the unwillingness of some courts to resolve cases for defendants as a matter of law when there is a paucity of proof to support the conclusion that the risks are other than obvious—is considered in a later discussion.⁵⁹ Here we examine more basic doctrinal errors—where courts have misapplied the law governing obvious risks in ways that render all but impossible the task of managing certain types of failure-to-warn claims.

Clearly the most dramatic example of doctrinal error is the refusal of some courts to adhere to the traditional rule that obvious risks need not be warned against. To understand how judicial negation of such a sensible position could have occurred, a brief detour into design litigation is necessary. For many years, a so-called “patent danger rule” operated in a majority of jurisdictions as a complete barrier to liability based on allegedly defective design.⁶⁰ This doctrine came under heavy attack from legal commentators who argued, with justification, that the obviousness of the danger speaks to only one of several factors in the risk-utility

⁵⁷ See, e.g., *Argubright v. Beech Aircraft Corp.*, 868 F.2d 764, 766 (5th Cir.), cert. denied, 110 S. Ct. 325 (1989); *Plante v. Hobart Corp.*, 771 F.2d 617, 620 (1st Cir. 1985); *Smith v. Hub Mfg., Inc.*, 634 F. Supp. 1505, 1508 (N.D.N.Y. 1986); *Complaint of Diehl*, 610 F. Supp. 223, 227 (D. Idaho 1985); *Fanning v. LeMay*, 38 Ill. 2d 209, 212, 230 N.E.2d 182, 185 (1967); *Duncan v. Louisiana Power & Light Co.*, 532 So. 2d 968, 971 (La. Ct. App. 1988); *Bell v. Wysong & Miles Co.*, 26 Mass. App. 1011, 531 N.E.2d 267, 269 (1988), review denied, 404 Mass. 1101, 536 N.E.2d 612 (1989); *Spaulding v. Lesco Int'l Corp.*, 182 Mich. App. 285, 451 N.W.2d 603, 609 (1990); *Nabkey v. Jack Loeks Enters., Inc.*, 376 Mich. 397, 400-01, 137 N.W.2d 132, 134 (1965); *Dempsey v. Virginia Dare Stores*, 239 Mo. App. 355, 359, 186 S.W.2d 217, 220 (1945); *Ruggiero v. Max Braun & Sons, Inc.*, 141 A.D.2d 528, 529-30, 529 N.Y.S.2d 144, 146 (1988); *Berry v. Eckhardt Porsche Audi, Inc.*, 578 P.2d 1195, 1196 (Okla. 1978).

⁵⁸ The reference to product designers refers to the fact that some risks must be designed against even though they are obvious. See, e.g., *Pike v. Frank G. Hough Co.*, 2 Cal. 3d 465, 474, 467 P.2d 229, 235, 85 Cal. Rptr. 629, 635 (1970) (manufacturer had duty to correct obvious blind spot in bulldozer).

⁵⁹ See text accompanying notes 200-12 *infra*.

⁶⁰ The leading case expressing the patent danger rule was *Campo v. Scofield*, 301 N.Y. 468, 95 N.E.2d 802 (1950). *Campo* was overruled by *Micallef v. Miehle Co.*, 39 N.Y.2d 376, 348 N.E.2d 571, 384 N.Y.S.2d 115 (1976).

formula governing design-based liability.⁶¹ The obviousness of risk tends to reduce, but does not invariably eliminate, the likelihood of injury. In other words, the obviousness of the risk suggests that it is less likely that cost-effective design alternatives are available, but plaintiffs should not be foreclosed categorically from making such a showing. Over the past several decades, a majority of courts have adopted this reasoning and have abolished the patent danger rule as a threshold limitation on defendants' duty in design cases.⁶² Ironically, commentators have argued more recently that the patent danger doctrine reflects important contractual norms which should not have been abandoned so quickly.⁶³ Some courts have steadfastly adhered to the patent danger doctrine in design cases.⁶⁴

Whether the patent danger rule in design defect litigation makes sense is a close question, and the controversy regarding its validity is understandable. For example, even courts that do not formally recognize the patent danger rule sometimes conclude in a particular case that the obviousness of the risk bars recovery for allegedly bad design as a matter of law.⁶⁵ What is puzzling is that some courts have concluded that the demise of the patent danger rule in design cases also has meaning with

⁶¹ See, e.g., *Darling, The Patent Danger Rule: An Analysis and a Survey of Its Vitality*, 29 *Mercer L. Rev.* 583 (1978) (patent danger rule ignores risk-utility analysis); *Marschall, An Obvious Wrong Does Not Make a Right: Manufacturers' Liability for Patently Dangerous Products*, 48 *N.Y.U. L. Rev.* 1065 (1973) (obviousness test ignores fairness concerns).

⁶² See, e.g., *Pike*, 2 Cal. 3d at 474, 467 P.2d at 234, 85 Cal. Rptr. at 635 (obviousness irrelevant to issue of duty); *Auburn Mach. Works Co., Inc. v. Jones*, 366 So. 2d 1167, 1167 (Fla. 1979) (potency of danger relevant only as part of defendant's case); *Holm v. Sponco Mfg., Inc.*, 324 N.W.2d 207, 208-13 (Minn. 1982) (patent danger test incompatible with public policy of apportioning loss).

⁶³ See P. Huber, *Liability, The Legal Revolution and Its Consequences* 19-32 (1988) (contractual norms, rather than tort rules, should predominate); Epstein, *supra* note 14, at 474-75 (risk-utility balancing for patent dangers violates market norms); Priest, *A Theory of the Consumer Product Warranty*, 90 *Yale L.J.* 1297, 1350 (1981) (consumers who can control level of risk by prudent product use would prefer standardized contractual disclaimers as a means of avoiding higher product costs which reflect riskier use by other consumers). But see Whitford, *Comment on a Theory of the Consumer Product Warranty*, 91 *Yale L.J.* 1371, 1382 & n.39 (1982) (judicial decisions expanding warranty liability may improve efficiency of loss allocation). For a reply to Whitford, see Priest, *The Best Evidence of the Effect of Products Liability Law on Accident Rate: Reply*, 91 *Yale L.J.* 1386 (1982).

⁶⁴ See, e.g., *Hedgepeth v. Fruehauf Corp.*, 634 F. Supp. 93, 98 (S.D. Miss. 1986) (open and obvious danger of walking on slick deck in cowboy boots defeated claim); *Orkin Exterminating Co. v. Dawn Food Prods.*, 186 Ga. App. 201, 203, 366 S.E.2d 792, 794 (1988) (no duty to protect against patent defects); *Bemis Co., Inc. v. Rubush*, 427 N.E.2d 1058, 1061-64 (Ind. 1981) (no duty to warn of obvious danger), cert. denied, 459 U.S. 825 (1982); *McCollum v. Grove Mfg. Co.*, 58 N.C. App. 283, 287, 293 S.E.2d 632, 635 (1982) (where machine patently dangerous because of method of functioning, manufacturer has duty to eliminate only latent defects), aff'd, 307 N.C. 695, 300 S.E.2d 374 (1983).

⁶⁵ See, e.g., *Jackson v. Corning Glass Works*, 538 A.2d 666, 669 (R.I. 1988).

reference to claims based on failure to warn.⁶⁶ Yet, the argument for abandoning the patent danger rule in warnings cases, simply because the rule has been abandoned in design cases, makes no sense. In a design case, the obviousness of the danger does not necessarily preclude the possibility that an alternative design would reduce the risk cost-effectively.⁶⁷ By contrast, assuming that some risks are patently obvious,⁶⁸ the obviousness of a product-related risk invariably serves the same function as a warning that the risk is present. Thus, nothing is to be gained by adding a warning of the danger already telegraphed by the product itself.⁶⁹

Fortunately, only a small minority of jurisdictions have rejected the traditional patent danger rule, holding that defendants must warn of obvious risks.⁷⁰ However, a larger number of courts have committed related errors by placing on defendants the burdens of production and persuasion on the obviousness issue. Traditionally (and, we argue, properly), the plaintiff bears the burden of proving, as part of his *prima facie* case, that the risk that materialized in harm was not obvious.⁷¹ However, a minority of courts now shift the burden to the defendant by one of two methods. A few courts speak of the obviousness of the risk explicitly, as though it were an affirmative defense;⁷² a somewhat larger number justify sending close cases to the jury by using language that suggests that the defendant somehow failed to carry its burden of proving obviousness.⁷³ Shifting the burden of proof, whether explicitly or implicitly, constitutes a departure from well-established doctrine and contributes to the inability of judges to sort out warnings claims consistently and coherently.

Yet another error relating to obviousness involves the question of

⁶⁶ See *Harris v. Karri-On Campers, Inc.*, 640 F.2d 65, 67 (7th Cir. 1981) (applying West Virginia law); *Horen v. Coleco Indus., Inc.*, 169 Mich. App. 725, 729-30, 426 N.W.2d 794, 796 (1988); *Campos v. Firestone Tire & Rubber Co.*, 98 N.J. 198, 207-08, 485 A.2d 305, 309-11 (1984); *Olson v. A.W. Chesterton Co.*, 256 N.W.2d 530, 536-37 (N.D. 1977).

⁶⁷ See notes 61-62 *supra*.

⁶⁸ For a discussion and rejection of the proposition that no risks are ever *completely* obvious, see text accompanying notes 200-12 *infra*.

⁶⁹ See note 57 *supra*.

⁷⁰ See note 66 *supra*.

⁷¹ See, e.g., *FMC Corp. v. Brown*, 526 N.E.2d 719, 728-29 (Ind. Ct. App. 1988).

⁷² See, e.g., *Shaffer v. AMF, Inc.*, 842 F.2d 893, 897 (6th Cir. 1988) (*dictum*); *Butz v. Werner*, 438 N.W.2d 509, 512 n.2 (N.D. 1980) (*dictum*).

⁷³ See, e.g., *Soto v. E.W. Bliss Div. of Gulf & W. Mfg. Co.*, 116 Ill. App. 3d 880, 886-87, 452 N.E.2d 572, 577-78 (1983) (defendant claimed it had no duty to warn because risks associated with operating punch press were open and obvious; court stated that risks were less obvious and that it was "a question of fact as to whether the lack of warning rendered the press unreasonably dangerous"); *Long v. Deere & Co.*, 238 Kan. 766, 772-74, 715 P.2d 1023, 1032-33 (1986) (defendant argued that warnings on crawler loader, if inadequate, were not as a matter of law proximate cause of plaintiff's injury; court stated that issue was properly submitted to jury).

whether different categories of users and consumers should be treated differently. Most courts agree that for purposes of determining whether the defendant owed a duty to warn of a particular risk, the standard for testing obviousness is objective. Thus, the issue for purposes of determining whether a breach of duty occurred is not whether the plaintiff actually recognized the risk,⁷⁴ but whether a reasonable person in the plaintiff's position would have done so.⁷⁵ Under traditional failure-to-warn doctrine, if more than one category of users and consumers is foreseeably likely to use or consume the product, then the duty owed to the particular plaintiff will be judged by the category of users or consumers into which the plaintiff falls.⁷⁶ If the plaintiff is an expert, no duty to warn may be owed him even if such duties are owed to non-expert users or consumers.⁷⁷ However, some courts have confused the issue of the objectivity of the obviousness standard with the issue of who should review that standard. Thus, courts faced with lawsuits by consumer-experts have shifted the question of whether a risk was obvious to a reasonable expert from the duty element of the plaintiff's claim to the issue of proximate cause.⁷⁸ The latter inquiry, in contrast to the issue of defendant's duty, is almost always for the jury, not the judge, to decide. This confusion prevents courts from weeding out cases which should be decided for the defendant as a matter of law.⁷⁹

One final doctrinal error relating to the obviousness of risks in warnings cases remains to be identified. We have observed that non-obviousness is a necessary condition to recovery for failure to warn. It does not follow, however, that it should also constitute a sufficient condition for holding a defendant liable. That is, a defendant manufacturer does not owe users and consumers a duty to warn of *all* risks that are not

⁷⁴ When the plaintiff has actual knowledge of an otherwise hidden risk from another information source, the defendant's failure to warn, though tortious, is deemed not to have caused the plaintiff's injuries. See, e.g., *Horak v. Pullman, Inc.*, 764 F.2d 1092, 1096-97 (5th Cir. 1985) (where plaintiff had actual knowledge of danger, lack of warning not proximate cause of back injury).

⁷⁵ See note 55 supra; see, e.g., *Malek v. Miller Brewing Co.*, 749 S.W.2d 521, 522 (Tex. Ct. App. 1988) (defendant has no duty to warn of danger of driving after drinking defendant's brand of beer).

⁷⁶ If a foreseeable class of users or consumers is inexperienced or inept, the warnings must be adjusted accordingly. See, e.g., *Todalén v. United States Chem. Co.*, 424 N.W.2d 73, 80 (Minn. Ct. App. 1988) (user's lack of special knowledge of risks associated with caustic cleaning product a factor in defining defendant's duty to warn).

⁷⁷ See, e.g., *Du Cote v. Liberty Mutual Ins. Co.*, 451 So. 2d 1211, 1213 (La. Ct. App.) (no duty to warn electrician of risk of electrocution from using ungrounded power saw), cert. denied, 457 So. 2d 15 (La. 1984).

⁷⁸ See, e.g., *Glittenburg v. Wilcenski*, 174 Mich. App. 321, 327-28, 435 N.W.2d 480, 483 (1989) (plaintiff's expertise went to issue of proximate cause, not duty to warn).

⁷⁹ For a discussion of why these kinds of cases should not be sent to the jury, see notes 101-04 and accompanying text *infra*.

obvious, but only non-obvious risks that bear some special causal nexus to the defendant's product. The product must, in some sense of the word, "create" the risk. If it does not, then the manufacturer should not be required to supply warnings, even if the risks are not obvious to users and consumers.

An example will help clarify this point. Assume M is a producer and retailer of shoes. One day M sells P a new pair of shoes. P walks onto a snow-covered, frozen pond wearing the shoes and falls through the ice. P sues M claiming that M should have warned him about walking onto snow-covered ponds in the winter. Assume that P argues, persuasively, that the risk of falling through snow-covered ice is not obvious to the class of persons (visitors from warmer climes) of which he is a member, and that the warning could have been included in the brochure supplied with the shoes which already warned, among other things, about how the leather soles of the new shoes become slippery when wet. Should this plaintiff reach the jury? We submit that he should not, even if a reasonable jury could find that the risks of weak ice on snow-covered ponds were not obvious to reasonable persons in the plaintiff's position. The defendant's shoes had nothing, or almost nothing,⁸⁰ to do with the plaintiff's falling through the ice. The failure to warn may have proximately caused the accident in the sense that a warning would have prevented the accident. But a court should conclude that the defendant owed no duty to warn of risks not created by its product.⁸¹

Notwithstanding the good sense of this conclusion, a number of courts have imposed a duty to warn on facts similar to these.⁸² While a larger number have refused,⁸³ the potential for error is great. The non-obviousness of the risk to the users, together with the apparent opportunity to reduce the risk by requiring the defendant to warn, lure some courts into pressing defendants to perform a warnings function that

⁸⁰ He was wearing the shoes. But presumably he would have worn other shoes if not these. The particular shoes produced by M had nothing to do with motivating or not preventing P's walk across the pond.

⁸¹ If frozen ponds, then stairs? Slippery slopes?

⁸² See, e.g., *Brown v. Sears, Roebuck & Co.*, 136 Ariz. 556, 564-65, 667 P.2d 750, 758-59 (Ct. App. 1983) (power saw manufacturer should warn against risk of electrocution from using saw with frayed extension cord); *DeLeon v. Commercial Mfg. & Supply Co.*, 148 Cal. App. 3d 336, 349, 195 Cal. Rptr. 867, 875 (1983) (defendant owed duty to warn purchaser of bin not to set it up near dangerous machinery).

⁸³ See, e.g., *Davis v. Caterpillar Tractor Co.*, 719 P.2d 324, 328 (Colo. Ct. App. 1985) (no duty to warn tractor driver that dead tree might fall on him); *In re Dickens*, 161 Ill. App. 3d 565, 570-71, 515 N.E.2d 208, 211 (1987) (no duty to warn antenna purchaser not to touch high tension wire); *Keirs v. Weber Int'l Stores, Inc.*, 352 Pa. Super. 111, 117, 507 A.2d 406, 409 (1986) (no duty to warn consumer against dousing jacket with flammable liquid and exposing it to flames).

makes unfair and possibly inefficient demands on them.⁸⁴

As our subsequent discussion makes clear,⁸⁵ the largest single error courts commit with respect to the element of obviousness is not directly related to any misunderstanding of doctrine, but instead lies in their tendency to send cases to the jury on weak facts even if the law is decided correctly. But the doctrinal errors described in this section exacerbate the degree to which this occurs. The plaintiff, not the defendant, should have the burden of proof on the obviousness issue. Each plaintiff should have the obviousness of product-related risks judged against an objective standard adjusted to the class of users or consumers of which the plaintiff is a member. Non-obviousness alone should not trigger a duty to warn of risks that are not created by the defendant's product. As we shall see, obviousness is one part of the warnings litigation garden that might be capable of producing healthy, helpful crops.⁸⁶ Courts should be especially careful to keep it free of weeds.

D. Confusing Risk-Reduction and Informed-Choice Warnings

Courts generally recognize that product warnings serve two distinct but related functions. First, warnings may reduce the risk of product-related injury by allowing consumers to behave more carefully than if they remained ignorant of risks associated with product use.⁸⁷ By behaving more carefully, consumers help to achieve the efficiency objective of tort law. Second, warnings may provide consumers with the information necessary to choose whether or not they wish to encounter certain kinds of risks on a "take it or leave it" basis. While assuring more informed consumer choices increases efficiency, it also reflects fairness concerns more clearly than do risk-reduction efforts.⁸⁸ Risk-reduction warnings

⁸⁴ Courts that impose liability in these cases effectively are imposing a general duty to rescue persons whom the defendants have in no way put at risk, something American courts generally refuse to do in other contexts. For the argument that it is unfair to impose such a duty, see Epstein, *A Theory of Strict Liability*, 2 J. Legal Stud. 151, 200-01 (1973). For the argument that it is inefficient to do so, see Landes & Posner, *Salvors, Finders, Good Samaritans, and Other Rescuers: An Economic Study of Law and Altruism*, 7 J. Legal Stud. 83, 119-24 (1978). For the argument that process values support a no-duty rule in these cases, see Henderson, *supra* note 31, at 928-43.

⁸⁵ See text accompanying notes 193-203 *infra*.

⁸⁶ See text accompanying notes 200-12 *infra*.

⁸⁷ For classic examples of risk-reduction warnings, see, e.g., *Powell v. Standard Brands Paint Co.*, 166 Cal. App. 3d 357, 212 Cal. Rptr. 395 (1985) (warning as to flammability of paint thinner); *Burch v. Amsterdam Corp.*, 366 A.2d 1079 (D.C. 1976) (warning as to flammability of floor tile adhesive).

⁸⁸ 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. Fiberboard Paper Prods. Corp.*, 493 F.2d 1076, 1089-90 (5th Cir. 1973) (asbestos), cert. denied, 419 U.S. 869 (1974). Several early commentators distinguished between warnings to reduce the risk of harm—risk-reduction warnings—and warnings given

cases are common to almost all product categories and form the central focus of this Article. Informed-choice warning litigation is generally limited to prescription drugs and cosmetics,⁸⁹ although occasionally other products are implicated.⁹⁰ As with all legal distinctions, the lines between these two types of warnings often blur. Even in a classic case of the product user being able to use the product more safely thanks to clear warnings, the user may also decide to decrease his level of usage in order to reduce the residual risks of injury. And even when the warning says "one out of one million people who take this drug become blind as a result," the consumer who chooses to go ahead and take it can be on the lookout for early symptoms that might reduce the severity of his injury if he turns out (inescapably, once he decides to consume) to be one of the unlucky few.⁹¹

The difference between risk-reduction and informed-choice warnings is closely analogous to the distinction between a medical malpractice case premised on negligent conduct and one based on the theory of informed consent. The negligence case tests the reasonableness of the doctor's conduct.⁹² It looks to risk reduction. The informed-consent claim, while acknowledging that the standard of conduct was adequate (and therefore that risk reduction is not involved),⁹³ questions the privilege of the doctor to act at all without providing the patient with adequate information to decide whether he wishes to encounter the risk. Scholarship

simply to inform the purchaser that the use of the product involves a nonreducible risk—informed-choice warnings. See, e.g., Twerski, *The Use and Abuse of Warnings*, *supra* note 9, at 519. 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); McClellan, *Strict Liability for Drug Induced Injuries: An Excursion Through the Maze of Products Liability, Negligence and Absolute Liability*, 25 *Wayne L. Rev.* 1, 32 (1978). Considerable judicial authority identifies defendants' failure to provide for informed choice as a separate ground for a products-liability action. Many of these cases cite the language of Restatement (Second) of Torts § 402A comment k (1965). See, e.g., *Graham v. Wyeth Laboratories*, 666 F. Supp. 1483, 1498 (D. Kan. 1987); *Finn v. G.D. Searle & Co.*, 35 Cal. 3d 691, 699, 677 P.2d 1147, 1152, 200 Cal. Rptr. 870, 875 (1984); *Hamilton v. Hardy*, 37 Colo. App. 375, 380, 549 P.2d 1099, 1110 (1976); *Ortho Pharmaceutical Corp. v. Chapman*, 180 Ind. App. 33, 55 n.11, 388 N.E.2d 541, 555 n.11 (1979). In the case of unavoidably unsafe products, the user or consumer typically can do little or nothing to reduce the risk of injury once the choice to use or consume is made.

⁸⁹ See, e.g., *Kehm v. Proctor & Gamble Mfg. Co.*, 724 F.2d 613 (8th Cir. 1983) (tampon and toxic shock syndrome); *Wright v. Carter Prods., Inc.*, 244 F.2d 53 (2d Cir. 1957) (deodorant); *Kaempfe v. Lehn & Fink Prod. Corp.*, 21 A.D.2d 197, 249 N.Y.S.2d 840 (1964) (deodorant), *aff'd*, 20 N.Y.2d 818, 231 N.E.2d 294, 284 N.Y.S.2d 708 (1967); see also cases cited in note 88 *supra*.

⁹⁰ See, e.g., *Borel*, 493 F.2d 1076 (asbestos).

⁹¹ Cf. *McEwen v. Ortho Pharmaceutical Corp.*, 270 Or. 375, 528 P.2d 522 (1974) (defendant has duty to warn of statistically insignificant possibility of injury to plaintiff).

⁹² See *Prosser & Keeton*, *supra* note 6, § 32, at 187-89.

⁹³ See, e.g., *Salis v. United States*, 522 F. Supp. 989, 997-99 (M.D. Pa. 1981); *Miller v. Van Newkirk*, 628 P.2d 143, 146-47 (Colo. Ct. App. 1981).

dealing with medical malpractice reflects an understanding that, with regard to standard of care and causation, the negligence standard used in typical risk-reduction cases may not be appropriate for informed-choice issues.⁹⁴ For example, considerable controversy exists regarding whether the standard of adequate disclosure required of the physician to the patient should be that provided by a reasonable doctor⁹⁵ (the negligence standard) or that expected by a reasonable patient (the informed-choice standard).⁹⁶ Similarly, opinions differ strongly regarding the burden the plaintiff should bear in establishing decision-causation: need the plaintiff prove that he would have made a contrary decision had he been provided with additional information?⁹⁷

⁹⁴ See generally P. Appelbaum, C. Lidz & A. Meisel, *Informed Consent: Legal Theory and Clinical Practice* § 35.65, at 112-29 (1987) [hereinafter P. Appelbaum, *Informed Consent*]; Prosser & Keeton, *supra* note 6, § 32, at 189-92; Katz, *Informed Consent—A Fairy Tale? Law's Vision*, 39 U. Pitt. L. Rev. 137, 142-43 (1977); Schultz, *supra* note 3, at 223-29; Note, *Restructuring Informed Consent: Legal Therapy for the Doctor-Patient Relationship*, 79 Yale L.J. 1533, 1535 (1970).

⁹⁵ Beginning with *Natanson v. Kline*, 186 Kan. 393, 350 P.2d 1093 (1960), courts have held that the standard for medical disclosure is that amount of information which a reasonable medical practitioner would provide under the same or similar circumstances. See, e.g., *Rush v. Miller*, 648 F.2d 1075, 1096 (6th Cir. 1981); *Shetter v. Rochelle*, 2 Ariz. App. 358, 363, 409 P.2d 74, 86 (1965), modified, 2 Ariz. App. 607, 411 P.2d 45 (1966); *Fuller v. Starnes*, 268 Ark. 476, 478, 597 S.W.2d 88, 90 (1980); *Ditlow v. Kaplan*, 181 So. 2d 226, 228 (Fla. Dist. 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, 1028 (1978) (citing cases that measure physician's duty to inform by standard of what reasonable physician would disclose under same or similar circumstances). This test almost invariably required medical expert testimony as to what information a prudent doctor would impart to a similarly situated patient. 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); *Leyson v. Steurmann*, 5 Haw. App. 504, 705 P.2d 37, 44 (1985); *Casey v. Penn*, 45 Ill. App. 3d 573, 584, 360 N.E.2d 93, 101 (1977); *Bly v. Rhoads*, 216 Va. 645, 649, 222 S.E.2d 783, 787-88 (1979). 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).

⁹⁶ See, e.g., *Canterbury v. Spence*, 464 F.2d 772, 787 (D.C. Cir.), cert. denied, 409 U.S. 1064 (1972); *Cobbs v. Grant*, 8 Cal. 3d 229, 244-45, 502 P.2d 1, 10-11, 104 Cal. Rptr. 505, 514-15 (1972); *Wilkinson v. Vessey*, 110 R.I. 606, 627, 295 A.2d 676, 689 (1972); *Miller v. Kennedy*, 11 Wash. App. 272, 282-83, 522 P.2d 852, 860 (1974), aff'd, 85 Wash. 2d 151, 152, 530 P.2d 334, 334 (1975) (per curiam). Under the reasoning of these cases, a patient's right to information is not dictated by a medical professional's assessment of which risks and therapy alternatives are worthy of consideration. Courts which 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, e.g., *Canterbury*, 464 F.2d at 792; *Cobbs*, 8 Cal. 3d at 242-43, 502 P.2d at 10, 104 Cal. Rptr. at 513-14; *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).

⁹⁷ *Canterbury* held that even if the doctor failed to disclose a material risk, liability does not attach unless a prudent person in the plaintiff's position, if given the requisite information, would choose against the therapy actually undertaken. See *Canterbury*, 464 F.2d at 790-91; see also *Cobbs*, 8 Cal. 3d at 245, 502 P.2d at 11-12, 104 Cal. Rptr. at 516-17; *Reikes v. Martin*, 471 So. 2d 385, 392-93 (Miss. 1985). Only a small minority of the decisions following *Canter-*

Compared with their medical malpractice counterparts, products failure-to-warn cases reflect little judicial sensitivity regarding the distinction between risk-reduction and informed-choice warnings.⁹⁸ Courts most often treat all failure-to-warn cases as of one cloth.⁹⁹ However, it is possible that if they fully appreciated the distinction they might, for example, be less willing to apply the causation presumption in risk-reduction cases. In informed-consent cases, where the function of a particular warning would have been to empower the plaintiff by allowing him to decide whether he wished to expose himself to the risk at all, second-guessing the decision the plaintiff would have made had he received the warning defeats the objective sought to be achieved: to transfer the decision from the defendant to the plaintiff.¹⁰⁰ In these cases, therefore, the presumption for the plaintiff is justified. By contrast, when the role of the warning is the more traditional one of risk reduction, the plaintiff's burden arguably should be higher. In the context of pure risk-reduction cases, the defendant's failure to warn constitutes less of a personal insult to the plaintiff and more of a wasteful generator of social costs. To make a valid case, the plaintiff arguably should be required to show that such waste has, indeed, been caused by defendant's failure to warn—that, having received a proper warning, the plaintiff would have behaved differ-

bury test causation by a subjective standard that seeks to determine whether a particular patient would have consented if she had been provided with the requisite information. See, e.g., *Scott v. Bradford*, 606 P.2d 554, 559 (Okla. 1979); *Arina v. Gingrich*, 84 Or. App. 25, 31-32, 733 P.2d 75, 79 (1987), *aff'd*, 305 Or. 1, 4, 748 P.2d 547, 548 (1988) (en banc); *Wilkinson v. Vesey*, 110 R.I. 606, 628-29, 295 A.2d 676, 690 (1972). The use of an objective test for causation has been the subject of considerable scholarly criticism. See, e.g., P. Appelbaum, *Informed Consent*, *supra* note 94, 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."); see also J. Katz, *The Silent World of Doctor and Patient* 79-80 (1984) (voicing similar criticism); Epstein, *Medical Malpractice: The Case for Contract*, 1 Am. B. Found. Res. J. 87, 121 n.72 (1976) (same); Goldstein, *For Harold Laswell: Some Reflections on Human Dignity, Entrapment, Informed Consent and the Plea Bargain*, 84 Yale L.J. 683, 691 (1975) (same); Schultz, *supra* note 3, at 249-51 (same); 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) (same).

⁹⁸ For an extensive discussion of the unique problems involved in litigating informed-choice cases, see Twerski & Cohen, *Informed Decision Making and the Law of Torts: The Myth of Justiciable Causation*, 1988 U. Ill. L. Rev. 607.

⁹⁹ Courts, for example, indiscriminately cross-cite warnings cases without noting the distinction between risk-reduction warnings and informed-choice warnings. See, e.g., *Reyes v. Wyeth Laboratories*, 498 F.2d 1264, 1280-82 (5th Cir.) (informed-choice case citing risk-reduction warning cases as authority), cert. denied, 419 U.S. 1096 (1974); *Wooderson v. Ortho Pharmaceutical Corp.*, 235 Kan. 387, 402-06, 681 P.2d 1038, 1057 (risk-reduction warnings case citing informed-choice cases as authority), cert. denied, 469 U.S. 965 (1984); *Bloxom v. Bloxom*, 512 So. 2d 839, 844 (La. 1987) (same).

¹⁰⁰ See Kidwell, *The Duty to Warn: A Description of the Model of Decision*, 53 Tex. L. Rev. 1375, 1408 (1975).

ently and avoided injury. We shall not opine at length on these policy issues at this stage of the discussion. Rather, we simply note that the case law has paid them little heed, and that greater sophistication is required.

E. The Garden Weeded: A Clean Failure-to-Warn Doctrine

For purposes of the ensuing discussion, we shall assume that courts apply a failure-to-warn doctrine that is free of the conceptual errors identified above. The failure-to-warn cause of action, accordingly, is couched in simple negligence, free from any reference to strict liability. Plaintiff bears the burden of proof on causation and is helped by a presumption of causation only if justified on the facts of the case. Defendants owe no duty to warn of obvious dangers. Furthermore, courts differentiate between risk-reduction and informed-choice cases and fashion doctrine by taking into account the different policy goals appropriate to each category.

Given this rather simple and straightforward doctrinal base, one might expect that litigation should proceed without unmanageable difficulty. Indeed, some manufacturers might believe that, with such a cleaned-up version of the law, the millennium has arrived. However, as we view the situation, we have merely cleared away the underbrush to reveal still more difficult conceptual and doctrinal problems which arise when this pure version of negligence law is applied to failure-to-warn fact patterns. As we shall make clear in the next section, the negligence framework in failure-to-warn cases, even when taken in its conceptually purest form, raises insolvable judicial problems. Certainly it is not up to the task of sorting out failure-to-warn claims in a rational, consistent, and sensible way. Our objectives in the discussions which follow are to explain this doctrinal failure and to identify the steps necessary to restore the integrity of decisionmaking in this important area of products liability law.

II

THE EMPTY SHELL OF FAILURE TO WARN: THE ABSENCE OF ADEQUATE RESTRAINTS ON JURY DISCRETION

We assume for purposes of this discussion that the fundamental doctrinal problems governing failure to warn discussed in the previous section have been resolved. The concerns we now address derive from the fact that the plaintiff in a negligence case is required to establish the several elements of her claim by a preponderance of the evidence.¹⁰¹ With

¹⁰¹ See J. Henderson & R. Pearson, *The Torts Process* 11 (3d ed. 1988).

respect to each element, the court must decide whether or not the plaintiff has presented sufficient evidence to permit a jury to find in her favor.¹⁰² For the liability system to achieve reasonably consistent patterns of outcomes and for courts to be able to prevent or overturn inconsistent and unfounded jury verdicts, the legal rules and standards must be sufficiently specific, and must refer to facts that are sufficiently verifiable.¹⁰³ Without adequate restraints on the exercise of unreviewable jury discretion, the liability system drifts into lawlessness. The problem is not that jurors are necessarily disposed to decide cases on whim. Indeed, we are inclined to think that jurors try to do a good job, and we have no reason to believe that the judge's instructions do not restrain jury behavior. But if the rules and standards of decision are so ambiguous that, even upon review of the record by a judge they will support practically any jury outcome, then the system itself tacitly permits, even if it does not explicitly invite, jury lawlessness.¹⁰⁴

Our thesis is that, in sharp contrast to other areas of negligence and products liability law, the standards governing failure-to-warn negligence claims provide restraints on jury discretion that are so inadequate as to be virtually nonexistent. As we shall explain in the discussions that follow, the problem is not so much that the standards are vague; vagueness is a source of difficulty in negligence law generally,¹⁰⁵ but no more so here than elsewhere.¹⁰⁶ Rather, the problem resides in the fact that the standards governing failure to warn too frequently rely on unavailable data and unverifiable facts.¹⁰⁷

Before considering individually each element in a failure-to-warn negligence case, a brief overview will be useful. As with negligence law generally, the plaintiff's *prima facie* failure-to-warn case provides three junctures at which courts may assess the adequacy of the claim: (1) preliminary risk-utility screening; (2) full-blown risk-utility balancing; and (3) causation. Preliminary screening pertains to courts' initial, intuitive assessments of the likelihood and severity of harm that a defendant's be-

¹⁰² *Id.* at 48-50.

¹⁰³ See Henderson, *supra* note 31, at 901.

¹⁰⁴ Justice Frankfurter made the following observation regarding the perceived tendency of federal trial judges to send all Federal Employers' Liability Act cases to the jury:

The easy but timid way out for a trial judge is to leave all cases tried to a jury for jury determination, but in so doing he fails in his duty to take a case from the jury when the evidence would not warrant a verdict by it. A timid judge, like a biased judge, is intrinsically a lawless judge.

Wilkerson v. McCarthy, 336 U.S. 53, 65 (1948) (Frankfurter, J., concurring).

¹⁰⁵ See Henderson, *Expanding the Negligence Concept*, *supra* note 8, at 478-82.

¹⁰⁶ See Henderson, *Design Defect Litigation Revisited*, 61 *Cornell L. Rev.* 541, 542-47 (1976); Henderson, *Judicial Review of Design Choices*, *supra* note 8, at 1559-60 n.121.

¹⁰⁷ For a discussion of the problem of nonverifiability in tort litigation, see Henderson, *supra* note 31, at 913-14.

havior might cause. For most negligence claims other than those involving failures to warn, the place for a court to begin to assess the strength of a plaintiff's claim is with the relative foreseeability, viewed *ex ante* at the time the defendant acted, of the risk that materialized in the plaintiff's injury.¹⁰⁸ Although precise quantification is never possible, courts instinctively react skeptically when a reasonable person in the defendant's position would have recognized only a very remote risk of injury.¹⁰⁹ Judges traditionally have taken negligence cases from juries due to the remoteness of the risk, standing apart from other factors.¹¹⁰

Risk-utility balancing is the next logical place at which a court can cast a skeptical eye on an arguably weak negligence claim. At this stage, the court explicitly weighs the foreseeability of risk against the putative costs of the risk-reduction measures.¹¹¹ When these risk-reduction costs are relatively great and the foreseeable risks of injury are relatively small, the court can and should resolve the case for the defendant as a matter of law.

The third point in the plaintiff's *prima facie* case at which a court applying negligence analysis can cull weak claims is in reviewing the causation requirement. Even if a reasonable defendant would have discerned a significant risk of injury and would have taken suitable precautions to avoid that risk, the plaintiff may not recover unless the precautions would have prevented or reduced the plaintiff's injuries.¹¹²

The sections that follow examine each of these potential restraints on jury discretion. We will show that in negligent failure-to-warn litigation, the restraints are virtually nonexistent. To accomplish our objective, we will compare and contrast failure-to-warn claims with claims of defective design, showing how the two areas are fundamentally different by highlighting the shortcomings of failure-to-warn doctrine.

¹⁰⁸ Cf. *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947) (Hand, J.) (identifying probability of injury as first of three variables in famous negligence formula).

¹⁰⁹ The best-known example of the independent use of risk foreseeability is found in *Palsgraf v. Long Island R.R.*, 248 N.Y. 339, 344, 162 N.E. 99, 100 (1928), in which Judge Cardozo concluded: "The risk reasonably to be perceived defines the duty to be obeyed." Another casebook favorite is the early decision of the English Court of Exchequer, *Blyth v. Birmingham Waterworks Co.*, 11 Ex. 781, 784-85, 156 Eng. Rep. 1047, 1049 (1856) (water company could not reasonably have foreseen bursting of pipes due to extraordinarily cold weather).

¹¹⁰ See, e.g., *Palsgraf*, 248 N.Y. at 344, 162 N.E. at 100; see generally Green, *Foreseeability in Negligence Law*, 61 Colum. L. Rev. 1401, 1403-17 (1961) (discussing English cases).

¹¹¹ See note 24 *supra*. The costs of risk-reduction measures are the third variable in Judge Hand's negligence equation—"the burden of adequate precautions." See *Carroll Towing*, 159 F.2d at 173.

¹¹² See, e.g., *Ford v. Trident Fisheries Co.*, 232 Mass. 400, 401, 122 N.E. 389, 390 (1919) (any negligence in company's positioning of rescue boat did not contribute to decedent's death).

A. Preliminary Risk-Utility Screening

We use the phrase "preliminary risk-utility screening" to refer to a court's initial assessment of the relative proximity or remoteness of a product-related risk, measured by the probability of injury that a reasonable defendant would have perceived at the time she acted.¹¹³ To understand how this preliminary screening process affects judicial decisionmaking in failure-to-warn cases, we will first consider in the defective-design context how it helps courts decide which cases should not reach the jury. This comparison is important because it highlights the potential ability of preliminary screening to serve as an independent test of the validity of plaintiffs' failure-to-warn claims.

When a judge's initial assessment of a design claim reveals that, at the time the defendant acted, the risk of plaintiff's injury was quite remote, a distinctive train of logic is set in motion. The judge knows that design changes have risk-utility implications extending beyond the category of user and consumer represented by the plaintiff. Any design change will have to be weighed against the possible increased cost it will impose on the manufacturer, and against the new potential risks it will pose for the consumer. Design changes, in other words, come in "chunks," and the chunks tend to come in minimum sizes.¹¹⁴ The risk of injury, therefore, must exceed some instinctive, judicially-measured threshold of significance before a costly design change is evaluated under full-blown risk-utility balancing.¹¹⁵

While every design change suggested by an injured plaintiff need not require a complete product overhaul, even the smallest chunk of alternative design entails at least some degree of modification. An analogy to writing and editing a paper helps to illustrate this point. Introducing a new idea toward the end of a nearly-completed paper will almost inevitably require revisions at various earlier stages in order to maintain the argument and logic of the piece. When the benefits to be gained by making this late addition are minimal, the writer may intuitively decide that

¹¹³ See note 108 *supra*.

¹¹⁴ This point anticipates a more robust discussion of the same issue in the next section, which deals with full-blown risk-utility balancing. See notes 129-58 and accompanying text *infra*. It can be understood intuitively by means of an example. Suppose that an injured plaintiff claims that a machine design should have included a safeguard against a bizarre accidental injury. Even before the court seriously addresses the question of whether a safeguard is feasible and cost-effective, the court can assume in nearly every design case that the design change will be at least "somewhat costly," and will implicate this user as well as others. If the accident is *truly* bizarre, the court may intervene and terminate the inquiry at this early juncture. Assuming that only one person is likely to be injured, very remote risks are not worth pursuing because the financial burden of redesigning the product is not cost-effective.

¹¹⁵ Two types of costs are avoided by resolving design cases early: transaction costs in the form of expensive trials, and error costs in the form of judicially required design changes which will not reduce the risk of injury to future consumers.

it is simply not worth the effort to add the new section if doing so would require reorganizing and rewriting significant portions of the paper. Likewise, in design litigation, judges frequently determine at the outset that an improved design which might have protected the plaintiff would nonetheless require such costly and elaborate alterations that the change simply does not merit a more careful analysis under full-blown risk-utility balancing. Judges can, and often do, wait to intervene until more substantial risk-utility data are before them,¹¹⁶ much as an editor might wait to abandon a proposed addition to a text until she had carefully reviewed the entire piece. But when the relevant risks are remote, those data (which, after all, are costly to obtain) may not be required in order to reach, at the outset of the analysis, a principled decision not to impose the change.¹¹⁷

In contrast to suggested alternatives in design cases, suggested alternatives in failure-to-warn cases appear to be easily compartmentalized. Like additional memory chips which are used to expand the capacity of a computer, warnings would seem to be added easily without requiring adjustments to the rest of the machine.¹¹⁸ When a risk is perceived in the context of an alternative design, it can be addressed only by a design change which unavoidably affects other related risks and utilities and thereby generates a not insignificant minimum threshold of avoidance costs. But when a risk is perceived in the context of failure to warn, a tailor-made remedy seems to be automatically available, precisely limited to the category of users and consumers represented by the plaintiff. The plaintiff argues that the manufacturer should share the information, however remote the risks it describes, with users and consumers.¹¹⁹ The rela-

¹¹⁶ See, e.g., *Brown v. Sears, Roebuck & Co.*, 136 Ariz. 556, 562-63, 667 P.2d 750, 756-57 (1983) (summary judgment for defendant reversed; question whether defendant-manufacturer should have designed power saw to work safely when used with a frayed, ungrounded extension cord required a trial).

¹¹⁷ See, e.g., *Elsroth v. Johnson & Johnson*, 700 F. Supp. 151, 164-65 (S.D.N.Y. 1988) (summary judgment for defendant; no duty to design package against remote risk of tampering); *Morrison v. Grand Union Forks Hous. Auth.*, 436 N.W.2d 221, 229 (N.D. 1989) (summary judgment for defendant; no need for defendant-manufacturer to design battery-powered smoke detector against remote risk that someone would use it without batteries).

¹¹⁸ This difference, though seemingly intuitive, is essentially rhetorical. See text accompanying notes 130-50 *infra*.

¹¹⁹ In addition to arguments based on cost, plaintiffs frequently succeed at trial in characterizing risks previously considered unknowable as "knowable from the outset" by a reasonable observer. Simply stated, it is extremely difficult for a court to dismiss as a matter of law a failure-to-warn claim on remoteness grounds when the plaintiff has introduced evidence that the risk actually materialized in the form of the plaintiff's injury. Because the product did, in fact, cause the injury, a court is sorely tempted to permit the inference to be drawn that a reasonable product distributor should have foreseen the risk of injury and should have warned against it. See cases cited in notes 204-05 *infra*. Thus the plaintiff will argue that at least some additional information was obtainable and should have been shared with him in the form of a

tive remoteness of the risk may create problems for the failure-to-warn plaintiff when the court reaches the full-blown risk-utility stage of the analysis—eliminating remote risks cannot justify much in the way of avoidance costs.¹²⁰ The remoteness of the risk may also create problems with causation—would telling the plaintiff about a remote risk have done any good? We will address those problems in subsequent discussions.¹²¹ But at the preliminary screening stage, the remoteness of the perceived risk will rarely provide the court in a failure-to-warn case with an independent means of taking the plaintiff's claim from the jury.¹²² This difficulty will occur because the plaintiff who claims that the manufacturer failed to warn, unlike the plaintiff claiming defective design, will be able to tailor his suggested alternative course of conduct precisely to the facts of his case in terms that have no immediately obvious consequences for other aspects of production, marketing, and distribution. All the defendant must do, contends the plaintiff, is add slightly to his warnings. On its face, the failure-to-warn claim is so modestly self-contained that, even when the risk is remote, it nevertheless fails to trigger the preliminary risk-utility screening which courts give to design-defect claims because the apparent unobtrusiveness of the plaintiff's request automatically counterbalances the remoteness of the risk. Thus, the relative unlikelihood of injury viewed *ex ante* loses its independent capacity to serve as a basis for taking the failure-to-warn case from the jury.¹²³

In addition to revealing the contrasting screening approaches taken by judges to design-defect and failure-to-warn cases, an examination of preliminary risk-utility screening helps to highlight the possible blurring of the risk-reduction and informed-choice warning distinction.¹²⁴ Our earlier discussion distinguished these two kinds of warnings and indicated that our analysis applies primarily to risk-reduction cases.¹²⁵ Nevertheless, one might be tempted to confuse this important distinction and to respond to our risk-foreseeability arguments as follows: "Your analysis criticizes failure-to-warn jurisprudence for failing to support judicial

warning, even if information sufficient to justify massive redesign or withholding of the product from the market was not.

¹²⁰ See note 115 *supra*.

¹²¹ See text accompanying notes 129-62 *infra*.

¹²² See, e.g., *Butler v. L. Sonneborn Sons, Inc.*, 296 F.2d 623, 626 (2d Cir. 1961), cited in *Wheeler v. General Tire & Rubber Co.*, 142 Wis. 2d 798, 812, 419 N.W.2d 331, 337 (Ct. App. 1987) ("if injury is likely to be serious, even slight foreseeability may warrant a finding that prudence requires the manufacturer to take the small additional burden to warn"). Remoteness must be distinguished from obviousness. Many more decisions deny liability for failure to warn as a matter of law on the ground that the risk is obvious than do so on the ground that the risk is remote. See text accompanying notes 200-05 *infra*.

¹²³ See note 119 *supra*.

¹²⁴ See text accompanying notes 87-100 *supra*.

¹²⁵ *Id.*

interventions based on the remoteness of the risk of injury, standing apart from other elements in the case. Your repeated use of the phrase 'apparent modesty' implies that plaintiffs are sneaking unworthy claims past unsuspecting judges. Nothing could be further from the truth. What your analysis overlooks is that users and consumers have a right to know the complete truth about the risks to which they are being exposed by defendants' products, however remote those risks may be. Nothing less than their personal integrity as human beings is at stake."

This argument is flawed because it invokes informed-choice reasoning to respond to a risk-reduction analysis.¹²⁶ Our analysis focused on the potential of warnings to reduce wasteful accident costs, not to vindicate consumers' personal integrity. If failure-to-warn claims are viewed as vindicating consumers' personal integrity, we ask that our hypothetical respondent describe and justify the appropriate measure of recovery for such invasion.¹²⁷ In our view, traditional tort recovery should and will follow upon the plaintiff's successful establishment of the elements required to prove the need for an adequate risk-reduction warning. If warning of remote risks does not reduce accident costs—and the informed-choice argument must concede that a given warning may not reduce such costs¹²⁸—then we are justified in being skeptical even if such warnings somehow enhance personhood values. In any event, it is inappropriate to support traditional tort recovery, which has risk reduction as its central goal, with arguments that refer to the protection of intangible interests in personal integrity.

Of course, a different argument is available to our hypothetical heckler, one that is based firmly on risk-reduction policy objectives: if the alternative warnings sought by plaintiffs in remote-risk cases are, in fact, divisible into interchangeable microchips, then it is only fitting that judges not resolve cases for defendants at this early stage. If the additional chip turns out to add a sufficiently large increment of memory to allow plaintiff to perform new computations—that is, if the remote risk warning is cost-justified and would have saved the plaintiff from harm—the plaintiff's claim is, after all, valid, and the court should not resolve these issues until examining the risk-utility and causation elements more thoroughly.

¹²⁶ For an example of a court committing the same error, see *Wheeler*, 142 Wis. 2d at 811-12, 419 N.W.2d at 336-37.

¹²⁷ Presumably, one would place a value on the plaintiff's interest in personhood invaded by the defendant's actions. For an extensive discussion of this issue, see Twerski & Cohen, *supra* note 98, at 648-53.

¹²⁸ If the invasion of the plaintiff's interest is a dignitary invasion akin to offensive battery, it need not actually or proximately cause physical injury to be actionable. See Restatement (Second) of Torts § 18 (1965) (offensive battery actionable whether or not it causes physical or emotional injury); see also Twerski & Cohen, *supra* note 98, at 648-53.

Our answer here requires us to anticipate, to some extent, what follows in subsequent discussions. What if, we ask, it should turn out that neither the full-blown risk-utility nor the causation analyses provide courts with sufficient guidelines for screening out marginal claims? In that event, the failure of preliminary risk-utility screening to provide an independent basis for sorting out warnings claims would, in hindsight, be regrettable. For now, we do not ask our readers to conclude whether or not the failure of preliminary screening to act as a gatekeeper is necessarily unfortunate. But if full-blown risk-utility and causation analyses should prove to be slippery slopes heading for the jury, then this failure of courts to engage adequately in preliminary screening will be cause for regret.

B. Risk-Utility Balancing

Even if the remoteness of the risk does not support the summary dismissal of a weak failure-to-warn claim, one should expect that, when the costs of making such warnings are explicitly considered in a risk-utility balancing, judicial culling of weak claims can and will occur. Courts should recognize that warning about relatively remote risks generates substantial social costs which in most cases outweigh any corresponding benefits in reducing accident costs. The most significant social cost generated by requiring distributors to warn against remote risks is the reduced effectiveness of potentially helpful warnings directed towards risks which are not remote.¹²⁹ Bombarded with nearly useless warnings about risks that rarely materialize in harm, many consumers could be expected to give up on warnings altogether.¹³⁰ And the few persons who might continue to take warnings seriously in an environment crowded with warnings of remote risks would probably overreact, investing too heavily in their versions of "safety."¹³¹ Given these limits on the capacity of consumers to react effectively to excessive risk information, the optimal, rather than the highest, levels of risk information, measured

¹²⁹ See Twerski, *The Use and Abuse of Warnings*, *supra* note 9, at 513-17; Schwartz & Driver, *Workplace Warnings*, *supra* note 56, at 54 n.71.

¹³⁰ See *Cotton v. Buckeye Gas Prods. Co.*, 840 F.2d 935, 937-39 (D.C. Cir. 1988); *Kerr v. Koemm*, 557 F. Supp. 283, 288 n.2 (S.D.N.Y. 1983); *Finn v. G.D. Searle & Co.*, 35 Cal. 3d 695, 701, 677 P.2d 1147, 1153, 200 Cal. Rptr. 870, 876 (1984); *Dunn v. Lederle Laboratories*, 121 Mich. App. 73, 81-83, 328 N.W.2d 576, 580-81 (1983). For an excellent discussion of this point relying on the work of cognition experts, see Schwartz & Driver, *supra* note 56, at 58-60.

¹³¹ See *Petty v. United States*, 740 F.2d 1428, 1441-42 (8th Cir. 1984) (Bright, J., dissenting); *Reyes v. Wyeth Laboratories*, 498 F.2d 1264, 1293 (5th Cir. 1974), cert. denied, 419 U.S. 1096 (1974); Franklin & Mais, *Tort Law and Mass Immunization Programs: Lessons from the Polio and Flu Episodes*, 65 Calif. L. Rev. 754, 759, 774 (1977); see also, *Pill Poll—National Survey Finds Many Have Bad Information, The State* (Columbia, S.C.), Mar. 6, 1985, at 2 (Gallup poll shows that Americans greatly overestimate the risks and underestimate the effectiveness of birth control pills).

both qualitatively and quantitatively, are what is called for.¹³²

The mess courts make of risk-utility balancing in failure-to-warn cases exemplifies the failure of the products liability system to reach, or indeed even to aim for, optimal levels of risk information. Among the factors contributing to the difficulties is the tendency for official decisionmakers—both judges and juries—to assume erroneously that warnings are virtually costless.¹³³ Because courts are accustomed to assigning monetary value to the accident-costs side of the risk-utility calculus,¹³⁴ it is only natural for them to think in monetary terms when addressing the avoidance-costs side. Unfortunately, the visible monetary costs of additional warnings are typically quite low—a few pennies for a bit more paper and a little more ink—while the greatest part of the costs of overwarning are nonmonetary and easily ignored.¹³⁵ Thus, it is hardly surprising, but still regrettable, that in many failure-to-warn cases, the risk-utility issue winds up improperly framed in the form of the question: “Even if the perceived risk was relatively remote, would not a reasonable person have warned against it, when doing so would have cost next to nothing and might have prevented the plaintiff’s injury?”¹³⁶

To some extent, these misperceptions are avoidable. Judges, at least, could learn to focus more carefully on the true costs of transferring risk information to users and consumers. And they could, to some extent, communicate their concern to juries via stronger instructions. But, in several respects, the difficulties in perceiving accurately the costs of added warnings in failure-to-warn cases are intractable. Even if judges and juries uniformly were to recognize the necessity for counting the true

¹³² The optimal level of product warnings is that level at which any more or any less information would increase the sum of accident costs and avoidance costs. Optimal warnings would minimize the sum of these costs. For a treatment of this concept in the context of products liability law, see W. Landes & R. Posner, *The Economic Structure of Tort Law* 280-84 (1987). For an analogous discussion in the context of contract law, see A. Polinsky, *An Introduction to Law and Economics* 25-36 (1983).

¹³³ See, e.g., *Wheeler v. General Tire & Rubber Co.*, 142 Wis. 2d 798, 819, 419 N.W.2d 331, 339 (Ct. App. 1987) (finding cost to add warning in this case “insignificant”); see also *Ross Laboratories v. Thies*, 725 P.2d 1076, 1079 (Alaska 1986) (“The cost of giving an adequate warning is usually so minimal, i.e., the expense of adding more printing to a label, that the balance must always be struck in favor of the obligation to warn”); *Freund v. Cellofilm Properties, Inc.*, 87 N.J. 229, 238 n.1, 432 A.2d 925, 930 n.1 (1981) (“Imposing the requirements of a proper warning will seldom detract from the utility of the product.”).

¹³⁴ Courts attach dollar values to accident costs every time they calculate damages awards. See generally J. Henderson & R. Pearson, *supra* note 101, at 201-90 (discussing rules by which harm to plaintiff is translated into dollar amount of damages).

¹³⁵ Overwarning causes users and consumers to discount or ignore warnings that should be heeded, leading to higher accident costs which, though very real, are not before the court in failure-to-warn litigation. Overwarning also may scare some worthwhile users away, resulting in wastefully high avoidance costs. See notes 129-32 and accompanying text *supra*.

¹³⁶ See cases cited in note 131 *supra*.

costs of warnings, the scientific and analytic tools necessary to identify these costs are not currently available. In design cases, the most relevant sciences are hard sciences—physics, chemistry, and engineering—which are brought to bear on the issue of whether a safer alternative is both theoretically possible and practically feasible. Markets exist in which both the tangible (nuts and bolts) and the intangible (reduced efficiency) aspects of the design problem are regularly priced.¹³⁷ And experts are available who can translate both sides of the relevant risk-utility calculus into workably comparable units of measure.¹³⁸

In contrast to design cases, failure-to-warn jurisprudence has no available body of hard science from which to draw the data necessary to run sensible risk-utility analyses. In warning cases, attention focuses not on comparisons between alternative methods of designing inanimate objects but on alternative methods of programming human behavior. The relevant sciences tend to be soft, undeveloped, and largely under-utilized.¹³⁹ Markets rarely exist in which risk information and the effects of such information on behavior are routinely priced.¹⁴⁰ And because even

¹³⁷ Presumably the various safety devices and safer alternative designs are bought and sold in markets that establish the relevant prices. Thus, one should be able to calculate the monetary value of reductions in efficiency generated by the imposition of safety requirements. This could be done by observing the differences in price between different methods of achieving higher levels of safety and the corresponding differences in demand for the various methods. For example, assume that two safety methods for protecting a worker's hands from punch press injury are equally effective and knowledgeable users are indifferent as between them. If one method is priced at \$100 per year, and another method is priced at \$20 per year, then the inference is fairly clear that the \$20 method generates a cost of approximately \$80 per year which is not included in the price, for example, the device might reduce productivity by \$80 per year.

¹³⁸ See J. Henderson & A. Twerski, *supra* note 88, at 639-42.

¹³⁹ For example, the vast body of decision-theory literature and expertise which deals with how people process information, see, e.g., R. Nisbett & L. Ross, *Human Inference: Strategies and Shortcomings of Social Judgment* (1980); *Judgment Under Uncertainty: Heuristics and Biases* (D. Kahneman, P. Slovic & A. Tversky eds. 1982) [hereinafter *Judgment Under Uncertainty*], has yet to surface in warnings litigation. For a discussion of the value of bringing this expertise to informed-choice litigation, see Thompson, *Psychological Issues in Informed Consent*, in President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, 3 *Making Health Care Decisions: The Ethical and Legal Implications of Informed Consent in the Patient-Practitioner Relationship* 83 (1982). We do not assert that communication experts are not presently being used in failure-to-warn litigation, since that is not the case. See text accompanying notes 230-45 *infra*. Our point is that much expertise has yet to be tapped and that courts need to become more hospitable to use of expertise available in this area. See generally Schwartz & Driver, *supra* note 56 (providing an excellent interdisciplinary evaluation of the difficulties of communicating warnings in the workplace environment).

¹⁴⁰ Two problems combine to eliminate the possibility for such markets. First, regarding the generation of risk information through testing, etc., the fact that such information constitutes a public good causes its potential markets to disintegrate. Second, for risks known by the producers to exist, but not made the subject of warnings, risk information can hardly be demanded by, nor can prices be imposed upon, product users who, by hypothesis, do not know

the best experts are frequently unable to translate the relevant elements into comparable units of measure, experts are less frequently relied upon in failure-to-warn litigation.¹⁴¹

Another difference between design and failure-to-warn claims concerns the effects of adding the plaintiff's proposed alternative. In many design cases, plaintiffs confront difficulties in trying to introduce a new alternative safety feature into an existing design.¹⁴² These difficulties arise because competing alternative design features inherently tend to crowd each other out. Thus, introducing a new feature into an existing design usually necessitates rearranging other aspects of the design and frequently requires rethinking much, if not all, of the existing design. This feature, highlighted in the earlier "rewriting the paper" hypothetical, reflects what the authors have elsewhere referred to as the "polycentric" quality of design problems.¹⁴³ Simply stated, a polycentric problem is one in which each of the elements is dependant on all, or most, of the other elements, so that altering one element necessarily alters all, or most, of the others.¹⁴⁴

Polycentricity is a handicap in the adjudication of solutions to design problems, because it defeats the types of arguments traditionally re-

such risks exist. Occasionally, one might be able to point out a situation in which a product user hires an independent expert to tell him about product-related risks not otherwise known by him. Consumer publications that rate various products are one such example. But the main purpose of those efforts is informed choice, not risk reduction.

¹⁴¹ Experts are frequently used in connection with the sorts of issues that failure-to-warn cases have in common with design cases, including the nature of risks presented by the product. See, e.g., *Martell v. Boardwalk Enters., Inc.*, 748 F.2d 740, 745 (2d Cir. 1984). They also are relied upon to explain the physical feasibility of conveying a message to the product user. See, e.g., *Griggs v. Firestone Tire & Rubber Co.*, 513 F.2d 851, 855 (8th Cir.), cert. denied, 423 U.S. 865 (1975). However, courts rely on experts less frequently on the issues of the need for a warning and whether a warning would have made a difference. Indeed, several courts have explicitly held that expert testimony is not required on these central issues. See, e.g., *Marchant v. Dayton Tire & Rubber Co.*, 836 F.2d 695, 700 (1st Cir. 1988); *Streich v. Hilton-Davis*, 214 Mont. 44, 49, 692 P.2d 440, 443 (1984). Courts occasionally refuse to allow behavioral experts to testify regarding experiments they have run on the warnings. See, e.g., *Uptain v. Huntington Lab, Inc.*, 685 P.2d 218, 222 (Colo. Ct. App. 1984).

¹⁴² Perhaps the best example of the difficulties of mutually incompatible, alternative safety features appears in *Garst v. General Motors Corp.*, 207 Kan. 2, 484 P.2d 47 (1971) (problems with safety features of earth moving machine). This aspect of the case is analyzed in Henderson, *Judicial Review of Design Choices*, *supra* note 8, at 1569-71.

¹⁴³ See, e.g., Henderson, *Judicial Review of Design Choices*, *supra* note 8, at 1534-39; Twer-ski, *supra* note 6, at 551-53. The "rewriting the paper" hypothetical appears at text accompanying note 116 *supra*.

¹⁴⁴ Lon Fuller, to whom the authors are indebted for their introduction to the "polycentric" concept, described the problem by using the image of a spider's web. The strands of a spider's web are interconnected; when one strand is pulled, a complex pattern of readjustments will occur throughout the entire web. See Fuller, *The Forms and Limits of Adjudication*, 92 Harv. L. Rev. 353, 395 (1978).

lied upon in that decisionmaking process.¹⁴⁵ For lawyers to be able to urge upon the court a single right result, they normally must be able to work their way through essentially linear chains of logic, resolving each issue before moving on to the next.¹⁴⁶ However, polycentric planning problems—such as, “Is this design reasonably safe?”—require a back-and-forth mode of reasoning in which the parties are free to reposition themselves on the various issues as each is considered in turn. Traditional adjudication accomodates such reasoning clumsily at best.¹⁴⁷

Ironically, in the context of the present discussion, the difficulties of design polycentricity also have a beneficial aspect, since they highlight the necessity of engaging in difficult trade-offs and force the court to realize that even small design changes are not cost-free. As the polycentricity of a design problem becomes increasingly aggravated, and thus more aggravating, the court is pressured to examine the plaintiff’s claim carefully to see whether the struggle to accomodate the suggested design alternative is in fact worth the effort.¹⁴⁸

Because the elements of an optimal warning package are less interrelated than are the constituent elements of a product design, problems involving failures to warn are almost never as polycentric as problems of design.¹⁴⁹ Plaintiffs, therefore, typically can fit suggested new risk information into existing warning packages without needing to rethink other elements of the package.¹⁵⁰

Ideally, the notion of optimal levels of risk information¹⁵¹ introduces an outside constraint on the transfer of risk information, not unlike the way in which the size of a phone booth constrains the number (and size) of people who can comfortably fit in it. In that sense, when the limits on the capacity both to give and receive warnings are reached, new warnings crowd out existing warnings.¹⁵² But because the elements of most warning packages are related to one another in a linear rather than a polycentric manner, a court will only be aware of the crowding problem if it knows what the limits on giving and receiving warnings are. Until the court is aware that those limits have been reached, the

¹⁴⁵ See authorities cited in note 8 *supra*.

¹⁴⁶ See Henderson, *Judicial Review of Design Choices*, *supra* note 8, at 1535.

¹⁴⁷ *Id.* at 1536.

¹⁴⁸ See, e.g., *Garst v. General Motors Corp.*, 207 Kan. 2, 22-23, 484 P.2d 47, 62-63 (1971).

¹⁴⁹ See Henderson, *Judicial Review of Design Choices*, *supra* note 8, at 1559 n.121.

¹⁵⁰ Once one recognizes that the way warnings are understood is affected by the sequencing of, and interrelationships between, the warnings, the “design” of the warning, so to speak, begins to appear polycentric. But that is a nuance largely lost on judges.

¹⁵¹ See text accompanying note 143 *supra*.

¹⁵² See *Cotton v. Buckeye Gas Prods. Co.*, 840 F.2d 935, 938 (D.C. Cir. 1988) (“The inclusion of each extra item [in a warning] dilutes the punch of every other item. Given short attention spans, items crowd each other out . . .”).

nonpolycentric arrangement of the elements of the warning package allows the court to continue to add new warnings indiscriminately. The court will not receive signals to indicate that difficult trade-offs are necessary, and indeed will effectively be making these trade-offs without conscious deliberation. Even a court which knows, in the abstract, that a limit will ultimately be reached, has no immediate sense of whether the case before it pushes the warning package beyond the appropriate constraints.

Thus, the concept of optimal information should help judges recognize the potential cost of adding warnings. But, in contrast to design cases in which the polycentric nature of the problem signals trouble the moment a hypothetical change is introduced,¹⁵³ the size of the phone booth in failure-to-warn cases is only rarely revealed by the facts of any individual case. Defendants attempt to sketch the outer boundaries of the optimal warnings constraint—that is, they try to show the limited size of the phone booth—in order to argue that adding the warning suggested by the plaintiff would exceed the limits of helpful information.¹⁵⁴ But here is where the lack of hard science and dependable data comes back to haunt the courts with a vengeance. Convincing a judge and jury that adding one more small person to the phone booth will exceed limits which cannot be defined adequately is a task at which few defendants succeed.¹⁵⁵

¹⁵³ Once again, trouble is signalled because each element in the design is connected with the others, as in a spider's web. See note 143 and accompanying text *supra*.

¹⁵⁴ See, e.g., *Broussard v. Continental Oil Co.*, 433 So. 2d 354 (La. Ct. App.), cert. denied, 440 So. 2d 726 (La. 1983). In *Broussard*, the plaintiff claimed that an electric drill should have been accompanied by a warning that sparks inside the motor could ignite vapors in the air. The court noted that the plaintiff's expert suggested ten different warning symbols which could have been included on the drill surface, while the defendant's owner's manual listed eighteen different warnings. In effect, the court realized that the phone booth was too small. The court stated:

[A]s a practical matter, the effect of putting at least ten warnings on the drill would decrease the effectiveness of all of the warnings. . . . Unless we should elevate the one hazard of sparking to premier importance above all others, we fear that an effort to tell all about each hazard is not practical either from the point of view of availability of space or of effectiveness. We decline to say that one risk is more worthy of warning than another.

Id. at 358. See also *Vallillo v. Muskin Corp.*, 212 N.J. Super. 155, 161 n.3, 514 A.2d 528, 531 n.3 (1986) (warnings need not list every potential injury; they need only give general notice of danger and conduct to be avoided). *Broussard* may not be a typical case, however, because there the defendant could point to a physical constraint—the size of the drill. Where the constraint is not physical, but rather consists of the user's capacity to understand, a defendant's task is much more difficult.

¹⁵⁵ But occasionally some do. In *Thompson v. Petro United Terminals, Inc.*, 536 So. 2d 504 (La. Ct. App. 1988), cert. denied, 537 So. 2d 212 (La. 1989), the plaintiff claimed that the defendant should have warned against using electric lamps in a potentially explosive environment. An expert testified that it would be impossible to warn of every different environment in which the lamps might be used. Impressed with that testimony, the court ruled for defendant

The problems run deeper still. Even if the relevant behavioral sciences were more developed, and courts more inclined and able to employ them seriously and intelligently, the very structure of our traditional system of adjudication steers courts in failure-to-warn cases away from optimal levels of risk information transfer. The difficulty, which we refer to as the "seriatim effect," stems from the fact that courts address claims *ad seriatim*, on a case-by-case basis. With respect to issues decided by triers of fact, later triers of fact are not allowed to be guided by the outcomes reached in earlier, unrelated trials.¹⁵⁶ The difficulties this presents in the failure-to-warn context are significant, and are not limited to product-warning cases.¹⁵⁷ A possible solution to the difficulties involved in sketching the boundaries of optimal information transfer, which the seriatim effect prevents, is to consider clusters of fact patterns involving a given product at one time.¹⁵⁸ Were this possible, plaintiffs' cases might supply collectively what few defendants in individual cases are able to provide—a sketch of the range of warnings that the producer might have given, and thus the beginnings of a sketch of the boundaries of optimal levels of risk information. A court could more easily discern whether the size limitations of the phone booth were threatened by any single petition for admittance if it had some idea of how many people were asking to get inside.

as a matter of law. See *id.* at 510-11.

¹⁵⁶ See, e.g., *Wild v. Consolidated Aluminum Corp.*, 752 S.W.2d 335, 338-39 (Mo. Ct. App. 1988) (finding error for plaintiff's counsel to refer to outcome in unrelated case). Evidence of prior lawsuits will be excluded unless the plaintiff can show that the issues and evidence are similar to the case at bar. See, e.g., *Powers v. Kansas Power & Light Co.*, 234 Kan. 89, 97-98, 671 P.2d 491, 499 (1983). But when the defendant "opens up" the issue of prior lawsuits, the plaintiff may be entitled to introduce evidence of prior outcomes in order to eliminate possible misimpressions. See, e.g., *Sacks v. Roux Laboratories, Inc.*, 25 Mass. App. Ct. 672, 676, 521 N.E.2d 1050, 1052-53 (1988).

¹⁵⁷ Punitive damages is another area of tort law in which this same effect is felt. Theoretically, courts should impose only a penalty that fits the "crime." But when a defendant is faced with a series of penalties for essentially the same conduct—for example, the distribution of a dangerous product without adequate warnings—the penalties may, in the aggregate, exceed what is fair and adequate. But a court judging an individual case is hardly in a position to achieve fairness in the aggregate. This position recently led United States District Court Judge H. Lee Sarokin to issue an order refusing to impose punitive damages whenever a defendant could show that such damages already had been imposed for the same product-related conduct. See *Juzwin v. Amtorg Trading Corp.*, 705 F. Supp. 1053, 1064-65 (D.N.J.), vacated, 718 F. Supp. 1233 (D.N.J. 1989).

¹⁵⁸ Even if courts were to consider clusters of fact patterns, the problems would still be daunting. In a free market economy with an infinite variety of products, each differing from one another in small increments, the problem of establishing optimal information for a particular product is extraordinarily difficult. The variation between similar products complicates the information-transfer problem since consumers must come to learn and differentiate between the characteristics of the various products. At the extremes, the differences, such as between a Volkswagen and a Cadillac, are sufficiently great; however, the differences between a Buick and an Oldsmobile, for example, might be too slight to communicate effectively.

The problem with this suggestion is that, as we have already observed, tort claims are traditionally adjudicated *ad seriatim*.¹⁵⁹ Each successive tribunal retains little or no institutional memory of what has come before. It is as though many different decisionmakers are presented, over time, with a sketch of a single phone booth in which there appears to be room for several more people, with each decisionmaker being asked to decide whether different sets of candidates should be granted admission. Each decisionmaker is aware that too many persons should not, collectively, be admitted to the booth. But none is told how many candidates there are in total, what the other candidates look like, or whether other tribunals have admitted them. Instead, a tribunal is told only to admit any particular candidate if, taken together with all the other admittance decisions being reached independently, doing so would achieve an optimal telephone booth population.

Without access to what other decisionmakers are doing, and without the power to coordinate these efforts, each of our hypothetical tribunals faces a daunting task. Even if it knows that the optimal number of occupants is, say, eight,¹⁶⁰ and that they should be chosen so that they constitute "a compatible crew,"¹⁶¹ the *seriatim* effect renders the task of reacting to individual petitions all but impossible. Given the difficulties of measurement and verification we have described, the overwhelming temptation, even for a conscientious decisionmaker, is to view a claim as *prima facie* valid and thus to allow the jury to decide, putting off to another day and another place the uncomfortable task of "getting tough" with plaintiffs.¹⁶²

C. Causation

Causation should, in appropriate cases, be the acid test of negligence law. In theory, it should force a plaintiff to move from establishing the defendant's violation of an abstract standard of care to proving the con-

¹⁵⁹ See text accompanying notes 160-62 *infra*.

¹⁶⁰ In actuality, of course, the constraint is never so specific.

¹⁶¹ Compatibility is an appropriate analogy—it is vague and implies a touch of polycentricity. See notes 143-45 and accompanying text *supra*.

¹⁶² See, e.g., *Rhodes v. Interstate Battery Sys. of Am., Inc.*, 722 F.2d 1517, 1520 (11th Cir. 1984) ("It is for the jury to decide whether [defendant's] chosen method [of warning] was negligent."); *id.* at 1523 (Hill, J., dissenting) ("courts should not be put to the task of conducting a trial each time a litigant suggests that, under some remotely conceivable set of facts, he could recover on his claim"); see also *Sanderson v. Upjohn Co.*, 578 F. Supp. 338, 339 (D. Mass. 1984) (defendant warned of exact conditions which plaintiff experienced, but court refused summary judgment: "the adequacy of warnings accompanying a product usually is a question of fact for the jury"); *McMurdo v. Upjohn Co.*, 444 So. 2d 449, 451 (Fla. Dist. Ct. App. 1983) ("in all events, the adequacy of the warning is for the jury to decide and may not be disposed of by summary judgment"), overruled, *Felix v. Hoffman-LaRoche*, 540 So. 2d 102 (Fla. 1989).

crete effects of that violation on this plaintiff. By forcing an answer to the question, "What difference would it have made in *this* case?" causation doctrine provides some quality assurance that the standard of care has been established correctly. It is altogether too easy to theorize about standards of care applied to society at large.¹⁶³ But if it is likely that the particular plaintiff's injury would have occurred in any event, then perhaps the gap between what is and what should have been is not as significant as was first thought—if it would not have mattered to this particular victim, then perhaps the effects of the defendant's behavior on society at large have been exaggerated. Even more importantly, causation reflects fundamental fairness norms. Indeed, it is difficult to imagine a fault-based, risk-reduction tort doctrine that would not require a substantial connection between the defendant's fault and the plaintiff's injury.¹⁶⁴ Human activity is varied and filled with thousands of indiscretions, large and small. We can sort them out only by testing them against a meaningful causation standard. Because it serves as a filter for human accountability, causation takes on a significant moral dimension in negligence law.¹⁶⁵

Once again, it is useful to compare failure-to-warn with design-defect cases. In product cases alleging defective design, causation doctrine operates reasonably well. A plaintiff typically sets forth a hypothetical alternative design and seeks to prove that, had the safer alternative been in place, the injury would have been avoided or reduced. Many design cases provide a rich factual background which helps to define the causation question. For example, motor vehicle design cases are generally supported by hard data such as auto speed, skid marks, trajectories, and the like.¹⁶⁶ Similarly, in industrial machinery cases, where allegations of in-

¹⁶³ For the argument that the negligence concept strains the limits of adjudication when used in the abstract, and that particularizing the standard of care by means of the "reasonable person in the defendant's position" perspective renders the concept manageable, see Henderson, *Expanding the Negligence Concept*, *supra* note 8, at 468 (arguing that retreat from specific negligence concept to general liability principles threatens judicial processing of individual cases).

¹⁶⁴ See generally A. Becht & F. Miller, *The Test of Factual Causation in Negligence and Strict Liability Cases* (1961) (analyzing role of causation in tort law); Wright, *Causation in Tort Law*, 73 *Calif. L. Rev.* 1735 (1985) (same).

¹⁶⁵ One view holds that the simple fact that a person has caused harm to another is sufficient to consider imposing liability. The actor may avoid liability by justifying or excusing the conduct in some way, but the fact that the actor caused the harm is the underlying source of the obligation to pay. See Epstein, *A Theory of Strict Liability*, 2 *J. Legal Stud.* 151, 160-89 (1973).

¹⁶⁶ See, e.g., *Calhoun v. Honda Motor Co., Ltd.*, 738 F.2d 126, 127-29 (6th Cir. 1984) (litigation concerning defective motorcycle brake design included evidence of length of skid marks, weather conditions, and design alternatives); *Dawson v. Chrysler Corp.*, 630 F.2d 950, 957-59 (3d Cir. 1980) (in defective-auto-design case, plaintiff's experts presented evidence that accident would have been avoided by alternative design), *cert. denied*, 450 U.S. 957 (1981).

adequate safety devices are often made, the injury-causing event is typically not clouded in mystery: a user whose hand is caught and injured can usually identify the physical characteristics of the machine, how her hand was trapped, where she was standing, the work environment surrounding the machine, and so on.¹⁶⁷

We do not mean to suggest that the causation issue is never troubling in design-defect cases. It can be maddeningly difficult.¹⁶⁸ In the main, however, its resolution does not depend on personal anecdote or on a sensitive understanding of how consumers respond to information. Hard science and the laws of physics dominate and, at the very least, provide a structure for the debate. The role of human behavior in design cases is thus narrowly defined. Often the very function of plaintiff's suggested alternative design is to eliminate reliance on fallible human responses by obviating the need for the product user to respond in a given fashion.¹⁶⁹ In short, the causation issue in most design cases is rendered manageable by hardware and hard facts.

In the typical failure-to-warn case, the very opposite is true. To establish causation a plaintiff should, in theory, be required to prove not only that she would have read, understood, and remembered the warning, but also that she would have altered her conduct to avoid the injury. How is the plaintiff to carry these burdens? No hard facts or scientific data frame the question. A plaintiff typically can offer little more than self-serving testimony and anecdotal evidence to establish her proximate causation case.¹⁷⁰ Being purely speculative, the plaintiff's arguments at

¹⁶⁷ See, e.g., *Micallef v. Miehle Co.*, 39 N.Y.2d 376, 379-80, 348 N.E.2d 571, 573-74, 384 N.Y.S.2d 115, 117 (1976) (plaintiff injured by machine lacking safety guard); *Knitz v. Minster Mach. Co.*, 69 Ohio St. 2d 460, 460-62, 432 N.E.2d 814, 815-16 (plaintiff's hand injured by mechanical press accidentally activated by unguarded foot pedal), cert. denied, 459 U.S. 857 (1982); *Phillips v. Kimwood Mach. Co.*, 269 Or. 485, 487-89, 525 P.2d 1033, 1034-35 (1974) (plaintiff injured by board flung from industrial sander).

¹⁶⁸ A subset of design cases that share many of the same "what would have happened if?" characteristics of failure-to-warn cases involves the issue of "injury enhancement," most frequently encountered in the context of motor vehicle "crashworthiness." In those cases, courts must struggle to determine what portion of a plaintiff's injuries were caused by the bad design. See, e.g., *Huddel v. Levin*, 537 F.2d 726, 737-38 (3d Cir. 1976) (plaintiff must calculate what injuries would have occurred if nondefective design were used). Another type of design case in which the causation issue resembles that in failure-to-warn cases involves the question of whether the plaintiff would have used a safety device if the defendant had supplied one. See, e.g., *Matthews v. Hyster Co.*, 854 F.2d 1166, 1168 (9th Cir. 1988) (directed verdict for defendant where plaintiff alleged defective braking system but presented no evidence that plaintiff would have used alternative system if one had existed).

¹⁶⁹ See, e.g., *Green v. Sterling Extruder Corp.*, 95 N.J. 263, 270-72, 471 A.2d 15, 19-20 (1984) (defendant's machine held defective for failure to protect plaintiff from injury caused by plaintiff's own inadvertence).

¹⁷⁰ See, e.g., *Laaperi v. Sears, Roebuck & Co.*, 787 F.2d 726, 730 (1st Cir. 1986) (proximate causation established in failure-to-warn case by plaintiff's own testimony that he would have heeded a warning if provided with one). But see *Denkensohn v. Davenport*, 144 A.D.2d 58,

once state both the minimum and maximum case. The good causation case and the bad are remarkably alike. If courts were to "get tough" with plaintiffs on the causation issue, almost no one would survive a defendant's motion for summary disposition. And yet anything less than getting tough sends most causation issues to the jury. Faced with choosing between these extremes, courts understandably defer to juries' discretion.¹⁷¹ The plaintiff's causation case is made excessively easy because any other reaction would make the case unacceptably difficult.

If the plaintiff's *prima facie* causation case is too easy to establish, the tools available to defendants to rebut it are almost nonexistent. Unlike design cases, in which defense experts are free to demonstrate that the hypothetical design would have fared no better, the defendant responding to the causation issue in a warning case has little to say and rarely finds it in his interest to say it. In many cases, the only factually plausible, causation-related line of defense is the assertion that the plaintiff was either too lazy to have read or too dull-witted to have understood a more pointed warning.¹⁷² Thus, only a personal attack on the plaintiff's shortcomings can blunt the unverifiable anecdotal offensive. Yet the cost to the defendant in potential jury displeasure at such an attack is hard to overestimate.

If the plaintiff can establish causation by mere say-so, however, and if the defendant is powerless to rebut, causation plays little role in establishing the actual validity of most failure-to-warn claims. Unfortunately, the need to rely on anecdotal evidence is not likely to disappear any time soon. The tribunal must construct a conceptual bridge between the absence of the desired information and the injury which plaintiff suffered, in order to establish the necessary causal link. For this bridge-building process to have any meaning, the factfinder must be able to hypothesize as to how the plaintiff would have used the missing information had the defendant supplied it. Such projection requires a model of how consumers absorb this information and under what circumstances they alter their behavior in response.

63, 536 N.Y.S.2d 587, 590 (whether duty to warn existed was issue for jury even though unlikely that plaintiff could have seen warning), *aff'd*, 75 N.Y.2d 25, 549 N.E.2d 1155, 550 N.Y.S.2d 584 (1989).

¹⁷¹ See cases cited in note 162 *supra*; see also *Cipollone v. Liggett Group, Inc.*, 683 F. Supp. 1487, 1496 (D.N.J. 1988) (jury must decide whether habitual, heavy smoker would have quit smoking if tobacco company had told her cigarettes were harming her health), *aff'd in part, rev'd in part*, 883 F.2d 541 (3d Cir. 1990).

¹⁷² See, e.g., *Mampe v. Ayerst Laboratories*, 548 A.2d 798, 801-03 (D.C. 1988) (claim against drug manufacturer in failure-to-warn case dismissed where physician admitted he had not relied on label in prescribing drug); *Bloxom v. Bloxom*, 512 So. 2d 839, 850-51 (La. 1987) (although warning in automobile owner's manual inadequate, recovery precluded because plaintiff testified he had not read manual).

Constructing a credible causation model is no easy task. In fact, a huge body of literature dealing with decision theory and cognitive learning suggests that predicting how additional information would have affected any given individual may be well nigh impossible.¹⁷³ A number of factors make such predictions difficult. First, considerable empirical evidence indicates that many people do not process information in a logical and predictable manner.¹⁷⁴ Second, not only the type of information presented, but also the manner in which it is presented can have a substantial effect on the decision.¹⁷⁵ Thus, unless we know the manner in which the withheld information would have been transmitted, we often cannot credibly predict its effect. Third, the prior beliefs and information of a given individual significantly affect the impact on her decisions of any additional information.¹⁷⁶ Unless we uncover the pre-existing base on which the additional information would have stood, we cannot determine the effect it might have had.

A concrete example will clarify the nature of these difficulties. Regarding the effects upon behavior of the manner in which information is presented, experimenters have discovered, not surprisingly, that the order in which information is presented has a significant impact on its perception by the individual who must ultimately utilize the data to reach a decision.¹⁷⁷ Unlike suggested design changes, suggested alternative or additional warnings cannot be comprehended by the user all in one piece. The consumer must read warnings sequentially and digest them piecemeal. As one moves from more important warnings to those of lesser

¹⁷³ This argument is fully developed in Twerski & Cohen, *supra* note 98, at 626-48.

¹⁷⁴ Among the more pervasive logical errors made in decisionmaking are: (1) underutilization of base-rate information, see R. Nisbett & L. Ross, *supra* note 139, at 157 (explaining "base-rate information"); Kahneman & Tversky, *On the Psychology of Prediction*, 80 *Psychological Rev.* 237, 248-51 (1973); (2) erroneous assessment of multiple risks, see Tversky & Kahneman, *Extensional Versus Intuitive Reasoning: The Conjunction Fallacy in Probability Judgment*, 90 *Psychological Rev.* 293, 310-14 (1983); and (3) attachment of excessive weight to easily accessible and memorable examples, see Tversky & Kahneman, *Belief in the Law of Small Numbers*, 76 *Psychological Bull.* 105, 105-10 (1971).

¹⁷⁵ Many aspects of the manner of presentation may have an impact on decisionmaking including: (1) how the issue is framed, see McNeil, Pauker, Sox & Tversky, *On the Elicitation of Preferences for Alternative Therapies*, 306 *New Eng. J. Med.* 1259, 1259-62 (1982); Tversky & Kahneman, *Rational Choice and the Framing of Decisions*, 59 *J. Bus.* 5251, 5254-70 (1986); (2) the order in which information is presented, see *Judgment Under Uncertainty*, *supra* note 139, at 14-15; and (3) the primacy of early information over information presented later, see Asch, *Forming Impressions of Personality*, 41 *J. Abnormal Soc. Psychology* 258, 283-88 (1946).

¹⁷⁶ Whether one will respond to new information is a function of how one calculates the probabilities of risk from both the new and the prior information already in one's possession. See T. Wonnacott & R. Wonnacott, *Introductory Statistics for Business and Economics* 542 (2d ed. 1977).

¹⁷⁷ See R. Nisbett & L. Ross, *supra* note 139, at 172-75; note 170 and accompanying text *supra*.

urgency, the number of warnings that must be supplied increases exponentially at each descending level. The plaintiff typically asks for only one warning—the one precisely relating to the risk that materialized in his injury. But the defendant has the right to insist that other, equally important warnings also not be obscured as a result.¹⁷⁸

Thus, when faced with the causation question at any level of risk, one must ask not only how many warnings should have been given, but how they should have been sequenced with regard to each other. If warnings of similar magnitude could be comprehended by the user simultaneously, their relative positioning might be unimportant. However, given that users cannot assimilate warnings simultaneously, warnings must be arranged in a sequence. Sequencing inevitably denotes relative importance and will have an impact on the weight a consumer attaches to the risk.¹⁷⁹

It follows that resolution of the causation question in failure-to-warn cases frequently depends on variables that cannot be resolved coherently in the courtroom. For the analysis in a multiple-warnings case to make sense, one must determine the sequence in which the hypothetical warnings should have appeared, and how the user or consumer would have reacted to alternative sequencing. The former question may not be determinable,¹⁸⁰ and the latter question is surely not litigable. We can only conclude that the causation issue lacks substantive content in much of failure-to-warn litigation.¹⁸¹ Too often, causation is a mirage—whatever

¹⁷⁸ See notes 158-62 and accompanying text *supra*.

¹⁷⁹ See authorities cited in note 174 *supra*.

¹⁸⁰ Admittedly, with regard to some products, some forms of plaintiff interaction with the product may be so foreseeable and/or create a sufficiently high level of danger that they clearly should receive precedent in a warning. Where, however, the disparity between one risk and another is not gross, it is folly to pretend that risks can be ordered by performing a risk-utility analysis for each individual harm to be avoided.

¹⁸¹ The discussion in the text focuses only on decision-causation, i.e., how the plaintiff would have responded to the warning had the warning actually been given. Professor Richard Epstein argues that the causation issue is further complicated by a direct physical causation problem. See R. Epstein, *supra* note 9, at 104. In drug warnings cases, for example, the plaintiff must first establish that this drug was the cause of her harm before she must show that an adequate warning would have influenced her decision to take the drug. See *id.* Two causation issues, therefore, must be hurdled as a predicate to liability. See *id.* The interplay between these two causation issues must also be reckoned with. In discussing the dual causation issues in informed-consent cases, Epstein argues that:

The complications involved in applying the [informed-consent] 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

the factfinder wishes it to be.¹⁸²

Given the difficulties of litigating the causation issue in these failure-to-warn cases, the question arises whether it should be abandoned altogether in warnings claims. This question may well be moot, because the courts have already effectively abandoned it: the willingness of judges to pass most causation questions to the jury is evidence that they attach little practical importance to the issue. In addition, the adoption by many courts of the causation presumption¹⁸³ has almost entirely negated the issue in those jurisdictions.¹⁸⁴

We began this section by observing that the causation issue should, at least in theory, be the acid test of the validity of the plaintiff's claim. Theory aside, it is clear that, for the reasons set forth above, causation plays no such role in warnings cases. Courts have practically mooted the issue because they lack any realistic way of adjudicating it. Thus, causation joins preliminary risk-utility screening and risk-utility balancing as an empty doctrinal shell in failure-to-warn cases. This situation is deeply disturbing. A plaintiff's *prima facie* case should not be capable of being constructed from pure rhetoric. The analogy to a car with a gas pedal and no brakes is not inappropriate, for there are no longer any effective checks on a failure-to-warn claim. The drive toward liability is now almost unhindered.

Finally, we note that the gulf between design litigation and failure-to-warn litigation is very great. In the design case not only does risk-

extent of his proof, then the probabilities of establishing the case as a whole are well below what is required.

Epstein, *Medical Malpractice: The Case for Contract*, 1976 *Am. B. Found. Res. J.* 87, 125-26. But see Cohen, *The Logic of Proof*, 1980 *Crim. L. Rev.* 91, 94, 95-97 (arguing that probability of conjunction is not an obstacle because each component must be proved separately to level of a well-established inference); Williams, *The Mathematics of Proof-I*, 1979 *Crim. L. Rev.* 340, 340-41 (probability of conjunction will not defeat claim; plaintiff need only meet burden of proof for each issue separately, rather than being required to multiply separate probabilities together).

¹⁸² See R. Epstein, *supra* note 9, at 106 ("Judicial deference to the jury does not solve the proof problems lurking in the causation issue; it only removes them from public view.").

¹⁸³ See text accompanying notes 50-54 *supra*.

¹⁸⁴ Commenting on the situation in which the gap between the information provided by the manufacturer and that which plaintiff alleges should have been provided is small, Professor Epstein notes:

The presumptions that adequate warnings would have been causally efficacious surely aids the plaintiff by easing his problem of proof, but it does so only at the cost of substantial error. This position might be justified on the ground that, once it is established that the defendant is a wrongdoer, the burden of proof on causal issues should be against, and not with him. Yet here the original conception of wrong is so tenuous that use of this presumption requires the piling of indulgence upon dubious indulgence. Where the causal question is not susceptible to any reliable proof whether direct or circumstantial, the proper response seems to be to deny the action in its entirety.

R. Epstein, *supra* note 9, at 106 (footnote omitted).

utility have true substantive content, but the causation issue is usually determinable because it is developed through the kind of hard facts that can be the subject of legitimate expert testimony.¹⁸⁵ As a result, courts handling design cases treat the causation issue seriously. They tend not to favor the plaintiff with presumptions to help him overcome the proof hurdle.¹⁸⁶ By contrast, in most failure-to-warn cases, the liability standard is without content and the causation analysis completely *ad hoc*. The collapse of negligence doctrine as a guide to decisionmaking in warnings cases could not be more complete.

D. Summing up the Underlying Problem

It remains to be considered how the problems we have just described which underlie failure-to-warn claims distinguish those cases fundamentally from negligence cases in general. "Hard cases," goes the old saying, "make bad law." In every field of negligence law, close cases arise at the margin that are difficult to decide. But negligence doctrine is generally worth preserving because it gets most clear cases right, and getting the clear cases right more than makes up for getting some marginal cases wrong. If the phenomena we have just described occur, similarly, only in marginal cases, then our concern over failure-to-warn doctrine is misplaced.

Are failure-to-warn cases different in this regard? We submit that they are. Given today's legal climate, most failure-to-warn cases are hard cases. In the current climate, typical defendants do not present courts with paradigmatic cases of negligent failure to warn. Rather, suppliers reach decisions of whether and how to warn quite deliberately and self-consciously. Serious risks that are not clearly obvious almost always are covered by consumer warnings. For these risks, the costs of warning *are* very small because only relatively few such warnings are needed. In negligence contexts other than failure to warn, inadvertence and lapses in judgment play a much bigger role and provide for more clear cases (or cases more ripe for settlement). In warnings cases, on the other hand, products suppliers do provide warnings for serious, non-obvious risks, and thus plaintiffs who appear in court present close cases that are hard

¹⁸⁵ See, e.g., *Dykes v. Clark Equip. Co.*, Prod. Liab. Rep. (CCH) ¶ 12,032 (E.D. Pa. 1988) (both sides used expert testimony to address causation issue in design defect case); *Kelley v. American Motors Corp.*, 130 Ill. App. 3d 662, 665-69, 474 N.E.2d 814, 817-19 (1985) (same). But see note 168 and accompanying text *supra* (discussing lack of hard facts in "injury enhancement" design defect cases).

¹⁸⁶ One exception to this general rule involves the so-called "enhancement of injuries" issue in design litigation. See note 168 *supra* (burden of apportioning harm shifts to the defendant); see, e.g., *Valk Mfg. Co. v. Rangaswamy*, 74 Md. App. 304, 325-27, 537 A.2d 622, 633 (1988) (standard of proximate causation affirmed in design case; burden shifted to defendant to limit liability once plaintiff had shown modicum of enhanced injuries).

to decide. While this phenomenon is somewhat apparent in design cases, it is more pronounced in failure-to-warn cases. Moreover, as we have shown, design cases more readily lend themselves to being sorted out at trial.¹⁸⁷ In the failure-to-warn context, the lack of clear cases only exacerbates the doctrinal emptiness of preliminary risk-utility screening, full-blown risk-utility balancing, and causation standards.

III

COMPENSATING FOR INSTITUTIONAL INADEQUACIES: SETTING THINGS RIGHT

In order to reconstruct an effective failure-to-warn doctrine, the failure-to-warn garden must first be weeded by eliminating the fundamental doctrinal errors which prevent this area of products liability law from reaching its objectives.¹⁸⁸ However, elimination of these doctrinal errors alone is not enough, as was shown in Part II. The doctrine must be wholly reconstructed; the very soil of the garden must be reconstituted. Even an error-free failure-to-warn doctrine is fraught with problems. Indeed, they are sufficiently disturbing to suggest that failure to warn should be abandoned and replaced with a more manageable and effective means of reviewing the adequacy of manufacturers' efforts to convey risk information. Such a drastic solution, however, presents a dilemma. We believe no responsible system of products liability law can properly function without a cause of action which imposes responsibilities on manufacturers to warn consumers about hidden, product-related risks. Yet, once one starts down the slippery slope of finding liability for failure to warn, few brakes exist to prevent sending most, if not all, cases to the jury on instructions which refer to nonverifiable events and generate inconsistent verdicts. This inevitable slide to inconsistency seems to flow necessarily from the fact that manufacturers are being asked unreasonably to rescue consumers from their natural state of imperfect knowledge and understanding. For many of the reasons identified in this Article, common law judges have moved with caution in creating exceptions to the general rule of no duty to rescue others from peril.¹⁸⁹ Perhaps what has happened in failure-to-warn cases is that courts, uncharacteristically, have gone too far in imposing an open-ended duty to rescue.¹⁹⁰ As a result, courts have

¹⁸⁷ See text accompanying notes 137-47 *supra*.

¹⁸⁸ See notes 21-100 and accompanying text *supra*.

¹⁸⁹ For a discussion of the process reasons underlying a cautious approach by judges to extend the duty to rescue, see Henderson, *supra* note 31, at 928-43 (arguing that courts refuse to impose general duty to rescue because such duty would lack a judicially manageable standard).

¹⁹⁰ The duty in warnings cases fits one of the traditional exceptions to the general no-duty-to-rescue rule: the defendant's conduct causes the plaintiff to be exposed to risk. See, e.g.,

predictably encountered severe problems of claims management.

If this way of looking at failure-to-warn litigation is correct, one possible solution to the difficulties would be to replace the existing open-ended approach of nonfeasance-based liability with a more limited approach based on misfeasance. That is, manufacturers' liability for patterns of information transfer could be limited to situations in which the defendant actively misrepresents the product, rather than passively fails to supply information about it.¹⁹¹ Presumably, this more limited approach would allow courts to impose liability for egregious failures to warn that might be expected to arise if no threat of liability were in place,¹⁹² without putting courts on the steep and slippery slope we have identified.¹⁹³

Although tempting, we believe that such a fundamental restructuring of existing law would be premature at this juncture. Instead, at least until a more moderate, middle-ground solution proves unworkable, we suggest that courts focus on the inadequacies of the present litigation system and seek to address them with honesty and sensitivity. Our specific proposals are developed accordingly in the subsections that follow. Their chances of success will depend on the willingness of courts to direct verdicts when the appropriate criteria are met. The necessity of imposing occasional directed verdicts follows from our belief that, without overt interventions by judges, there is no middle path out of the present quagmire. But perhaps the hope for a middle ground is not fantasy. Until recently, courts had shown no inclination to reverse the momentum, built up over more than twenty years, toward expanding products liabil-

Tubbs v. Argus, 140 Ind. App. 695, 698-700, 225 N.E.2d 841, 842-43 (1967) (no common law duty to rescue generally, but affirmative duty imposed when defendant controlled instrumentality causing injury). But for the reasons we have described, the courts are unable to determine with any consistency the adequacy of various defendants' efforts to rescue.

¹⁹¹ See generally J. Henderson & A. Twerski, *supra* note 88, at 119-32 (discussing tort of misrepresentation in products liability context).

¹⁹² The clear cases of misfeasance, at least, must be dealt with. Although the distinction between misfeasance and nonfeasance can be difficult to draw, courts might be expected to stretch the concept of "misrepresentation" to encompass some of the clearer instances of defendants' failures to warn of high-level, hidden risks. See, e.g., *St. Joseph Hosp. v. Corbetta Constr. Co.*, 21 Ill. App. 3d 925, 956-57, 316 N.E.2d 51, 73-74 (1974) (manufacturer who knowingly misrepresented safety characteristics of product held liable). Under this misfeasance test, when a distributor sells a product without warning of a serious risk attending a foreseeable pattern of use or consumption, she may be found to have represented impliedly that the product was safe for that foreseeable pattern of use or consumption. Compared with nonfeasance-based failure to warn, however, it would be more difficult for courts to stretch the misfeasance-based concept to reach the sorts of intuitively doubtful cases described in this Article.

¹⁹³ Although misrepresentation may stretch to capture some failures to warn, it will not even begin to stretch as far as the open-ended "rescue the plaintiff from ignorance" principle underlying failure-to-warn doctrine.

ity further and further. A recent empirical study of products liability decisionmaking indicates, however, that courts may at last be receptive to change.¹⁹⁴ Although this new receptivity has yet to manifest itself clearly in published warnings decisions,¹⁹⁵ that may be merely a function of the inherent and daunting difficulties we have described rather than any principled commitment by judges to continue with business as usual in warnings cases. Armed with the agenda to which we now turn, and carried along by the newly manifested willingness to rethink older patterns of decisionmaking, courts may yet be able to bring much-needed order to failure-to-warn litigation.¹⁹⁶

Courts face three major tasks in redressing the inadequacies of the present failure-to-warn doctrine. First, they must refuse to impose liability merely for defendants' failures to add insignificant increments of information to their communications with consumers. Second, courts must acknowledge their own inability to grasp the totality of warnings problems by deferring more readily to other decisionmakers who do possess the institutional capability to assess warnings as a whole. Third, courts must demand greater procedural rigor in the litigation process, directing verdicts more readily in unworthy cases.

A. Refusing to Impose Liability for Failure to Include Insignificant Increments of Information

Earlier we described the relative ease with which plaintiffs can press upon courts their need for tiny increments of additional information that might have helped them to avoid injury.¹⁹⁷ We also noted the difficulties

¹⁹⁴ See Henderson & Eisenberg, *The Quiet Revolution in Products Liability: An Empirical Study of Legal Change*, 37 UCLA L. Rev. 479, 498-533 (1990) (examining both trial and appellate court products liability decisions). The Henderson & Eisenberg study reveals a dramatic reversal in favor of defendants in products liability litigation from the mid-1980s to 1989. See *id.* at 539. The authors found the turnaround statistically significant. See *id.* at 540. Defendants' success rate applied to a broad range of products liability issues, with the exception of failure-to-warn cases. See *id.* at 489-98.

¹⁹⁵ *Id.* at 496. One of the authors of this Article co-authored the Henderson & Eisenberg empirical study, discussed in note 194 *supra*. To test the hypothesis that courts have not yet begun to turn the corner in favor of defendants in failure-to-warn cases, the same inquiries were run on published failure-to-warn decisions as were run in the study on all published products decisions. See Henderson & Eisenberg, *supra* note 194, at 498-516. Because the numbers are small (566 total decisions over a six-year period, or an average of 96 per year), the results are necessarily inconclusive. But no pro-defendant trends are apparent in recent years. See *id.*

¹⁹⁶ Early writers on the subject of failure to warn suggested that in order to provide greater certainty in the law, the judiciary may have to play a more active role in administering warning standards. See Dillard & Hart, *Product Liability: Directions for Use and the Duty to Warn*, 41 Va. L. Rev. 145, 178-80 (1955) (asserting that judiciary is best institution to balance social security with social progress).

¹⁹⁷ See text accompanying notes 118-23 *supra*.

encountered in fairly establishing causation for such small informational increments.¹⁹⁸ In addition, we argued that as product warnings address each new level of risk, the lists of warnings become increasingly longer and consumer focus more attenuated and difficult.¹⁹⁹ We see no solution to these problems unless judges begin adopting a hardheaded attitude toward such claims. Courts simply should refuse to hold defendants liable for their failure to include one more tiny piece of information. Several types of claims, especially those involving obvious dangers, low risk foreseeability, and minor verbal shadings, must be approached with a firm anti-liability presumption.

1. Obvious-Danger Cases

Although most courts agree that product suppliers owe no duty to warn of open and obvious dangers,²⁰⁰ some courts have committed doctrinal errors in administering this obvious-danger rule.²⁰¹ In this section, we shall assume that the overarching doctrinal problems addressed in Part I have been resolved, and that courts are trying to till a properly weeded garden. Our focus here is more practical than theoretical. At what point does a danger become sufficiently obvious that a warning is not necessary? More importantly, who decides the issue of obviousness—the judge or the jury?

We note at the outset that some courts are prone to characterize risks as non-obvious for reasons that we believe to be illegitimate. This sort of mischaracterization occurs most frequently in two categories of cases. The first category consists of cases in which courts label an arguably obvious risk as non-obvious simply to allow a plaintiff whose design-defect claim has failed a chance to recover on a warning claim. It is standard practice for products liability plaintiffs to allege and attempt to prove both a design defect and a failure to warn in the same case. As we noted earlier, in order to make out a legitimate design-defect case, a plaintiff must identify a feasible design alternative that would have prevented or lessened the plaintiff's injury.²⁰² With considerable frequency, however, plaintiffs' proof on the alternative design falls short of the mark. Especially when the plaintiff's injuries are serious, courts are tempted to allow the warning claim to fill the breach. In order to give this "deserving" plaintiff an opportunity to recover, the court will take a danger that appears to be fairly obvious (and thus not a subject which requires a warning) and hold it to be arguably non-obvious, at which

¹⁹⁸ See text accompanying notes 165-76 *supra*.

¹⁹⁹ See text accompanying notes 129-32 *supra*.

²⁰⁰ See cases cited in note 57 *supra*.

²⁰¹ See text accompanying notes 57-84 *supra*.

²⁰² See text accompanying notes 142-44 *supra*.

point the warning claim is submitted to the jury.²⁰³ Such a claim is neither fish nor fowl. A smidgeon of design defect and a dash of failure to warn should not suffice for recovery. Two separate claims, *neither* of which alone legitimately provides a basis for recovery, can hardly in combination overcome their separate deficiencies and thus allow recovery. A plaintiff who does not legitimately establish a design case by qualified expert testimony should not be awarded an illegitimate failure-to-warn recovery as a consolation prize by a court's mislabeling of an obvious risk as non-obvious.

The second category of cases in which courts improperly characterize obvious risks as non-obvious results when courts reason by hindsight. Some courts decide the issue of whether a danger is obvious by reasoning

²⁰³ See, e.g., *Martell v. Boardwalk Enters., Inc.*, 748 F.2d 740, 747-48 (2d Cir. 1984) (upholding finding for defendant on design allegation but for plaintiff on failure to warn of stability of highly dangerous Jet Ski); *Long v. Deere & Co.*, 238 Kan. 766, 771-74, 780, 715 P.2d 1023, 1027-30, 1033 (1986) (upholding both finding of no design defect and finding of failure to warn, even though missing information was common knowledge among users); *Ingram v. Caterpillar Mach. Corp.*, 535 So. 2d 723, 728-30 (La. 1988) (finding design defect claim unsuccessful but upholding failure-to-warn claim of employee who did not jump from forklift during lateral overturn).

A similar phenomenon is evident in cases in which courts have denied a plaintiff recovery on a design claim and then stretched to find a failure-to-warn claim that would support recovery. See, e.g., *Germann v. F.L. Smithe Mach. Co.*, 395 N.W.2d 922 (Minn. 1986) (upholding jury finding of no defective design but finding breach of duty to warn of foreseeable misuse). In one striking case, the plaintiff had not read the owner's manual which warned against parking his car, equipped with a catalytic converter, over easily combustible material. See *Dalton v. Toyota Motors Sales, Inc.*, 703 F.2d 137, 138-39 (5th Cir. 1983). The plaintiff parked the car in just this manner, left the engine running, lit a cigarette, and fell asleep. See *id.* Plaintiff was burned in the ensuing fire and sued the automobile manufacturer on a products liability claim. See *id.* at 138. On appeal, the Fifth Circuit overruled a trial court's *j.n.o.v.* and reinstated the jury's verdict that the catalytic converter on the 1978 Toyota automobile was defectively designed as well as that the manufacturer had failed to warn adequately about the danger of parking the car over dry grass. See *id.* at 141 & n.2. The concurring opinion, discussing the dubiousness of the verdict and the modesty of the evidence supporting it, is quite revealing:

While the evidence adduced supports the jury's verdict with respect to the cause of the fire, *i.e.*, the catalytic converter, I do have concerns about the lack of evidence dealing with the alleged inadequacy of the warning contained in the owner's manual. These concerns are heightened by the weakness of the plaintiff's case with respect to an inherently defective design in the automobile, that is, the placement of the catalytic converter and the failure to provide safety features which could have prevented the fire. The plaintiff's case was nonexistent with respect to the defective nature of the catalytic converter itself. Where, as here, minimum evidence of inherent defectiveness of the product is presented, a lesser warning may be held adequate than in cases where the proof of defectiveness, and hence dangerousness, of the product is greater

Rather than presenting testimony bearing on the duty to provide a warning commensurate with the degree of danger presented, the plaintiff did little here other than to point out the fact that the warning was contained in the owner's manual and that no other warning was given to him.

Id. at 142 (Jolly, J., concurring). Despite these reservations, the concurring opinion declined to state that the evidence was insufficient to prove that the warning was inadequate. See *id.*

backwards from the fact of the plaintiff's injury. When a plaintiff is badly injured, it is not irrational to assume that the plaintiff did not fully appreciate the danger. If he had, the likelihood is that he would have avoided it. From this premise, it is a small jump to conclude that the product could not have been obviously dangerous. In some decisions this reasoning is explicit,²⁰⁴ in others implicit.²⁰⁵ Whether explicit or implicit, determination by hindsight is an inappropriate basis for labeling a risk non-obvious. No form of product communication will be read and heeded by every consumer. Even screechingly explicit warnings will be disregarded by some. Reasoning from the mere fact of the plaintiff's injury, which resulted in a lawsuit, to the necessity for a warning, threatens to subvert the obvious-danger rule. It equates the bare fact of the plaintiff's injury with the legal conclusion of non-obvious danger.

Putting to one side the doctrinal errors and the instances in which courts are illegitimately motivated to bypass the obvious-danger rule,²⁰⁶ a core of cases remains which requires careful attention. In every case involving arguably obvious dangers, a court must decide when to direct a verdict for the defendant and when to send the case to the jury. We conclude that too many cases make their way to juries. This pattern might be more acceptable if the plaintiff's failure-to-warn claim was otherwise subject to fair and efficient judicial screening. However, in light of the almost total collapse of failure-to-warn doctrine detailed above,²⁰⁷ the obviousness test for risks must be employed more rigorously by courts as a screening device. Although courts readily acknowledge in the abstract that defendants need not warn of obvious risks, courts sometimes find it hard to resist the conclusion that, in any given case, an additional increment of information might have been useful no matter how intuitively obvious the danger. Perhaps the product user or consumer did not *really* know what he was getting into. Perhaps a bit more information, presented a bit more forcefully, would have made a difference.

The speculative nature of such an approach is devastating. Spurred by this underlying fear, courts have sent to trial and to juries cases

²⁰⁴ For one example of explicit reasoning, see *Conti v. Ford Motor Co.*, 578 F. Supp. 1429, 1431-32 (E.D. Pa. 1983). In *Conti*, the husband inadvertently started his car in gear, and ran over the plaintiff, his wife. The court found that the husband would not have done so if the risk had been obvious. *Conti* was later reversed. See 743 F.2d 195 (3d Cir.), cert. denied, 470 U.S. 1028 (1985).

²⁰⁵ For one example of implicit reasoning, see *Pettis v. Nalco Chem. Co.*, 150 Mich. App. 294, 302-03, 388 N.W.2d 343, 348 (1986) (workers poured molten steel into mold containing chemical which exploded; court found they would not have done so if risk of explosion had been obvious).

²⁰⁶ See text accompanying notes 60-86 *supra*.

²⁰⁷ See text accompanying notes 101-87 *supra*.

against manufacturers for failure to warn of patently obvious dangers such as failure to warn that diving into the shallow end of a swimming pool can cause serious injury,²⁰⁸ failure to warn that attempting to lift a 315-pound cafeteria table by oneself may cause back strain,²⁰⁹ failure to warn that it is dangerous to tow a person riding in an inner tube in a crowded river at very high speed,²¹⁰ and failure to warn that drinking massive quantities of tequila within a short time can cause death.²¹¹ These are not isolated examples. The reporters abound with them.²¹² To prevent the continuance of such absurd claims, the standard of obviousness must rise. A judicial mind-set must be developed that does not allow sending such marginal claims into the relatively unfettered hands of a jury. A robust interpretation of the obvious-danger rule is a necessary predicate to a sane failure-to-warn world.

2. *Low-Foreseeability Cases*

Courts rarely use low or remote risk foreseeability as an independent basis for dismissing failure-to-warn products cases. As we noted earlier, no obvious monetary costs counterbalance what appear to be costless additional warnings.²¹³ Furthermore, the level of credibility of the existence of the risk need not be substantial. Once again, no one is being asked to do anything other than spill a little ink and reveal the doubt to consumers. But the numbers of remote risks that must be warned about (especially when considering those with low credibility thresholds) are substantial. If courts are to deal with this problem responsibly, they must be prepared to treat low risk foreseeability as an independent fac-

²⁰⁸ See, e.g., *Corbin v. Coleco Indus.*, 748 F.2d 411, 417-18 (7th Cir. 1984) (genuine issue of material fact whether risk of bellyflopping into shallow water obvious); *Erickson v. Muskin Corp.*, 180 Ill. App. 3d 117, 120, 535 N.E.2d 475, 478 (1989) (duty to warn of risks of diving through inner tube into shallow pool); *Glittenberg v. Wilcenski*, 174 Mich. App. 321, 326, 435 N.W.2d 480, 482, appeal granted in part, 433 Mich. 878, 446 N.W.2d 168 (1989) (risk of diving into shallow end of pool not obvious even though plaintiff experienced swimmer).

²⁰⁹ See, e.g., *Strain v. Mitchell Mfg. Co.*, 534 So. 2d 1385, 1389 (La. Ct. App. 1988) (holding jury could find table defective on either dangerous-design or failure-to-warn grounds), cert. denied, 537 So. 2d 1165 (La. 1989).

²¹⁰ See *Butz v. Werner*, 438 N.W.2d 509, 512 (N.D. 1989) (affirming as proper jury question whether rubber tube unreasonably dangerous because of lack of warnings).

²¹¹ See *Brune v. Brown Forman Corp.*, 758 S.W.2d 827, 831 (Tex. Ct. App. 1988) (genuine issue of material fact whether tequila safe for intended use without instructions describing safe use).

²¹² See, e.g., *Yaeger v. Stith Equip. Co.*, 177 Ga. App. 835, 836-37, 341 S.E.2d 492, 493 (1986) (risk not obvious when top heavy vehicle labeled "all terrain vehicle" tipped over on steep slope) (emphasis added), aff'd after remand, rev'd on other grounds, 185 Ga. App. 315, 364 S.E.2d 48 (1987); *Books v. Pennsylvania Power & Light Co.*, 362 Pa. Super. 100, 109, 523 A.2d 794, 799 (1987) (while plaintiff knew of danger of contact with power lines, risk of electrical arcing without actual contact between lines and plaintiff's truck not obvious).

²¹³ See text accompanying notes 118-23 *supra*.

tor. The sacrifice in terms of consumer safety is likely to be small. Consumers who understand the true remoteness of these kinds of risks are not likely to pay them much heed. Most normal people sensibly refuse to account for highly remote risks in their daily conduct.²¹⁴ The only way to assure that consumers will take these types of risks into account is for product distributors to exaggerate their frequency by highlighting them in product warnings. Not only would such remote risk warnings crowd out potentially useful warnings but they would also focus consumer attention on the fairy tale bogeyman. One cannot cry wolf without paying the price over the long term.

3. *Specificity-of-Warning Cases*

A fair number of warning claims concern themselves with what can fairly be characterized as the relative specificity of warnings. In one much-cited decision,²¹⁵ the plaintiff suffered paralysis from a stroke allegedly caused by an oral contraceptive. The plaintiff claimed that the warnings were inadequate because they did not mention the word "stroke." The appellate court held that the adequacy of the warning given by defendant—that the birth control pills could cause "abnormal blood clotting which can be fatal," and that the user was subject to the increased risk of blood clotting in such "vital organs as the brain"—presented a question for the triers of fact.²¹⁶ The court opined that a jury might conclude that the failure of the manufacturer specifically to mention the risk of a "stroke" minimized the warning's impact. The deficiency was not cured by the fact that the warnings given emphasized the risk of death, since a jury might conclude that permanent disability was a fate worse than death.²¹⁷

A later version of the birth control pill warning, developed after the above-mentioned decision, did warn of the possibility of stroke specifically.²¹⁸ The later warning clearly demonstrates the difficulty of formulating alternatives which are somewhat more graphic. It told "of the serious side effects of oral contraceptives, such as thrombophlebitis, pulmonary embolism, myocardial infarction, retinal artery thrombosis, stroke, benign hepatic adenomas, induction of fetal abnormalities, and

²¹⁴ This is the sensible assumption underlying much of the instrumentalist analysis of tort law. See R. Posner, *Economic Analysis of Law* 166 (3d ed. 1986). It also has been supported empirically. See Shavell, *An Analysis of Causation and the Scope of Liability in the Law of Torts*, 9 J. Legal Stud. 463, 491 n.48 (1980).

²¹⁵ *MacDonald v. Ortho Pharmaceutical Corp.*, 394 Mass. 131, 475 N.E.2d 65, cert. denied, 474 U.S. 920 (1985).

²¹⁶ *Id.* at 141, 475 N.E.2d at 71.

²¹⁷ *Id.*, 475 N.E.2d at 72.

²¹⁸ *Id.* at 134 n.6, 475 N.E.2d at 67 n.6.

gallbladder diseases.”²¹⁹ Once the warning moves from the general to the specific, it becomes necessary to list all risks of the same or similar magnitude. One rightfully wonders whether this last-quoted laundry list is more effective for someone in the position of the above-described plaintiff than the earlier warning that referred more generally to blood clotting causing serious injury or death.

The foregoing decision and others like it,²²⁰ which impose liability for the failure of defendants to be slightly more specific, would seem to run afoul of the requirement that causation be proved. One may seriously doubt whether such minor differences in wording would really affect a consumer’s behavior. Alternative formulations that are more specific may require greater elaboration to reflect honestly the dangers presented by the more finely honed articulation. Courts would do well to approach this genre of warning cases with healthy skepticism.

B. Deferring to Institutions Capable of Evaluating Warnings in the Aggregate

In an earlier discussion we raised the problem of the seriatim effect indigenous to our tort litigation system. We suggested that one way of

²¹⁹ *Id.*

²²⁰ See, e.g., *Uptain v. Huntington Laboratory, Inc.*, 685 P.2d 218, 219-20 (Colo. Ct. App. 1984), *aff’d*, 723 P.2d 1322 (Colo. 1986) (plaintiff suffered severe burns on hands from contact with caustic cleaner labeled on one side of container with word “poison” in large red letters between two skull and cross-bones logos and labeled on other side, in smaller letters, with “Danger: Corrosive. . . Produces chemical burns. Do not get in eyes, skin, or on clothing;” court held that adequacy of warning was for jury to decide); *Pell v. Victor J. Andrew High School*, 123 Ill. App. 3d 423, 428, 462 N.E.2d 858, 861 (Ill. App. Ct. 1984) (plaintiff broke spine when she bounced off of mini-trampoline while doing gymnastic exercises in high school class; label on trampoline read, “Caution. Misuse and abuse of this trampoline is dangerous and can cause serious injuries. . . Any activity involving motion or height creates the possibility of accidental injuries. . . Use without proper supervision can be dangerous and should not be undertaken or permitted;” whether label should specifically mention severe spinal injury for jury to decide); *Gines v. State Farm Fire & Casualty Co.*, 516 So. 2d 1231, 1233-35 (La. Ct. App. 1987) (wood stove flue pipe came loose from stove when roof of house repaired, suffocating occupants; instructions with stove said to make sure connection between flue pipe and stove was secure and to follow local building codes; whether instructions should have specifically told professional installer to use metal screws to secure pipe was for jury to decide), *cert. denied*, 519 So. 2d 127 (La. 1988); *Chausse v. Alcan Ingot & Powders, Prod. Liab. Rep.* (CCH) ¶ 11,898 (D. Mass. 1988) (aluminum powder exploded from static sparks; drum containing powder said “EXPLOSION HAZARD CONTAINS FINELY DIVIDED ALUMINUM FLAKE POWDER. Avoid dust conditions which can form explosive mixtures. Use non-sparking handling equipment which is electrically grounded . . . ;” for jury to decide whether label also should have told user to wear non-static clothing and shoes); *Lewis v. Watling Ladder Co., Prod. Liab. Rep.* (CCH) ¶ 11,228 (Tenn. Ct. App. 1986) (bottom of extension ladder slipped on wet, smooth concrete; label on ladder said “when . . . ladders are erected on a surface where there is a hazard of slipping, users should equip with shoes, lash in place, or have another person hold ladder;” whether label also should have specifically warned against wet, smooth concrete held for jury to decide).

dealing with the extraordinary difficulties involved in sketching the boundaries of optimal information transfer would be to consider simultaneously clusters of fact patterns involving a given product or product type. Although we acknowledged that the seriatim effect is too deeply ingrained in our judicial system to allow courts to accomplish the desirable clustering, courts could at least pay more serious attention to conclusions reached by those who possess the institutional capability of evaluating warnings in the aggregate. However, for reasons that we find difficult to understand, courts have not deferred to the determinations of product safety agencies such as the Food and Drug Administration or Consumer Product Safety Commission.²²¹ The analysis usually begins and ends with the statement that agency standards are minimum, not maximum, standards and that courts are therefore free to disregard them.²²²

We submit that this approach is misguided. The problem of determining the proper wording of a warning may not necessarily require expertise to be solved. But perceiving and judging the wide spectrum of possible warnings does require significant expertise. Furthermore, it is the kind of expertise that is not easily transferrable to the judicial theater. The knowledge sought is not the knowledge of an isolated fact or judg-

²²¹ Two arguments have been advanced by defendants. First, they have argued that federal regulation preempts state law. The overwhelming majority of courts have refused to find federal preemption, either express or implied. See, e.g., *Abbot v. American Cyanamid Co.*, 844 F.2d 1108, 1112 n.1 (4th Cir. 1988), cert. denied, 109 S. Ct. 260 (1988) (federal law did not preempt Virginia common law liability for defective design or failure to warn); *Finn v. Searle & Co.*, 35 Cal. 3d 691, 724 n.20, 677 P.2d 1147, 1169 n.20, 200 Cal. Rptr. 870, 892 n.20 (Bird, J., dissenting) (approval of warning language by FDA not necessarily dispositive of state law failure-to-warn claim); *MacDonald*, 394 Mass. at 136, 475 N.E.2d at 70 (liability for failure to warn not necessarily avoided by manufacturer's compliance with FDA guidelines); *Feldman v. Lederle Laboratories*, 97 N.J. 429, 446, 479 A.2d 374, 388 (1984) (state law claim based on strict liability not preempted by federal regulation of drug industry). But see *Moore v. Kimberly-Clark Corp.*, 676 F. Supp. 731 (W.D. La.) (FDA approval effectively preempted consumer tort law claim under state law), modified, 867 F.2d 243 (5th Cir. 1987). For a thoughtful analysis of the preemption problem, see Cooper, *Drug Labeling and Products Liability: The Role of the Food and Drug Administration*, 41 Food Drug Cosm. L.J. 233 (1986). A second argument is that compliance with governmental regulation should suffice to preclude liability as a matter of law. This argument is usually rejected on the ground that compliance with statute or regulation is merely evidence of non-negligence but not dispositive with respect to the issue. See Restatement (Second) of Torts § 288C (1965); MUPLA, *supra* note 20, § 108, at 44; cases cited in note 209 *supra*.

²²² See, e.g., *Stevens v. Parke Davis & Co.*, 9 Cal. 3d 51, 65, 507 P.2d 653, 661, 107 Cal. Rptr. 45, 53 (1973) (FDA warnings may be only minimal in nature); *McEwen v. Ortho Pharmaceutical Co.*, 270 Or. 375, 398, 528 P.2d 522, 534 (1974) (mere compliance with FDA demands does not necessarily satisfy requirement of appropriate warnings); *Bristol-Myers v. Gonzales*, 548 S.W.2d 416, 423 (Tex. Civ. App. 1976) (warning's mere compliance with FDA requirements not adequate as matter of law), *rev'd on other grounds*, 561 S.W.2d 801 (Tex. 1978). For a critique of this approach, see Walsh & Klein, *The Conflicting Objectives of Federal Regulation and State Tort Law Drug Regulation*, 41 Food Drug Cosm. L.J. 171 (1986).

ment, but rather the totality of possible warnings for the product or product type.²²³ Accordingly, a dose of judicial humility is called for. Courts recognizing the limits of their institutional capabilities should refuse to second-guess the judgments of agencies who possess not only expertise but also a capacity for knowledge and memory which the courts cannot match. If the regulation aims at reducing the particular risk that materialized in the plaintiff's injury, the fact that a warning conforms to a regulation promulgated by a federal agency should practically foreclose liability for failure to warn. In those instances, courts should require plaintiffs to show by clear and convincing evidence that the agency's regulation was insufficient.²²⁴

In one class of failure-to-warn cases, the courts appear to have followed something like the agency-deference approach suggested here. The federal courts of appeal, in the recent spate of cigarette-cancer cases, have effectively eliminated all failure-to-warn actions arising subsequent to 1966, when the Federal Cigarette Labelling and Advertising Act²²⁵ became effective. Admittedly, the cases have been decided under the guise of federal preemption of states' rights to regulate warnings.²²⁶

²²³ See text accompanying notes 151-55 *supra*.

²²⁴ Several states have enacted legislation providing that compliance with state or federal statutes or regulations creates a rebuttable presumption that a product is non-defective. See, e.g., Colo. Rev. Stat. § 13-21-403(b) (1977); Kan. Stat. Ann. § 60-3304 (1981); N.J. Stat. Ann. § 2A:58C-1(4) (West 1987); N.D. Cent. Code § 28-01.1 to -05(3) (1979); Tenn. Code § 29-28-104 (1978). Some have passed statutes providing that compliance with FDA warnings bars the assessment of punitive damages. See, e.g., N.J. Stat. Ann. § 2A:58C-1(5) (West 1987); Ohio Rev. Code Ann. § 2307.80(c) (1987); 1987 Or. Laws ch. 774, § 3; Tex. Civ. Prac. & Rem. Code Ann. § 81.003 (Vernon 1987). Several noted scholars have advocated that compliance with statutory or regulatory warnings be considered an absolute defense to liability. See, e.g., R. Epstein, *supra* note 9, at 110-12; Schwartz, *Proposals for Products Liability Reform: A Theoretical Synthesis*, 97 Yale L.J. 353, 398 n.90 (1988). Given the lack of structure and the open-endedness of the failure-to-warn doctrine, we believe that greater credence must be given to governmental standards than is now the case. We do not agree with those states that have instituted the rebuttable presumption because we believe that it does not give sufficient guidance to courts in deciding whether to take cases from the jury. Regardless of whether there is such a presumption, the plaintiff succeeds if he shows by a preponderance of the evidence that the standard to which the defendant's product conforms is inadequate. The problem, as we suggest, is the evidentiary standard, not the entity on whom the burden of proof is placed. Thus, to give the presumption any weight, a higher standard than mere preponderance is required. It does not follow, however, that an irrebuttable presumption is the appropriate solution to the problem. Our position thus steers a middle course between the two extremes.

²²⁵ 15 U.S.C. §§ 1331-1341 (1982).

²²⁶ See, e.g., *Roydsdon v. R.J. Reynolds Tobacco Co.*, 849 F.2d 230, 233-35 (6th Cir. 1988) (failure-to-warn claim preempted by federal law); *Stephen v. American Brands, Inc.*, 825 F.2d 312, 313 (11th Cir. 1987) (preemption occurs by implication when federal law occupies field, leaving no room for local supplementation); *Cipollone v. Liggett Group, Inc.*, 789 F.2d 181, 186-88 (3d Cir. 1986) (Act preempted state law claims challenging adequacy of warning on cigarette packages), cert. denied, 475 U.S. 1043 (1987); *Forster v. R. J. Reynolds Tobacco Co.*, 437 N.W.2d 655, 661 (Minn. 1989) (federal act impliedly preempts state law failure-to-warn claims); *Dewey v. Brown & Williamson Tobacco Corp.*, 225 N.J. Super. 375, 381, 542 A.2d

However, as commentators have noted, the federal preemption argument does not follow easily from controlling precedent.²²⁷ The more logical explanation is that the courts are convinced that the litigation cycle that would follow from a contrary holding would be unmanageable. The specter of trial courts making findings of inadequacy based on the failure of defendants to have added small increments of warnings to those legislatively mandated is one that the appellate courts do not welcome. The prospect of such increments effectively being mandated on a state-by-state basis is equally unappealing to courts.²²⁸ We believe that the holdings in these cases are rather the product of common sense or common law preemption than that of federal preemption.

In addition to legislative deference, courts should accord some weight to industry standards regarding product warnings. Defendants have put forward industry custom as a defense in failure-to-warn litigation less frequently than compliance with governmental standards.²²⁹ Courts have good reason, of course, to be more suspect of the custom defense simply because it may be in the interest of industry to conform to a sub-optimal standard of care. Nonetheless, widespread industry custom with regard to product warnings deserves serious attention by the courts. Once again, an entire industry has the ability to assess the warning issue in a manner that a court faced with *seriatim* litigation cannot hope to accomplish. We do not suggest that a black letter rule of judicial deference to industry-wide standards be adopted. We do argue that courts should give substantial weight to evidence that an entire industry, or a substantial portion thereof, has chosen to handle product warnings in a certain way.

C. Injecting Procedural Rigor: Some Starch and Some Tension

We have argued that failure-to-warn litigation lacks the kind of healthy adversarial tension that calls upon decisionmakers to struggle with the cases they decide. It remains to be considered whether the needed tension may be injected by adjusting the processes by which these

919, 922 (1988) (federal act preempted claim alleging failure to warn).

²²⁷ See, e.g., L. Tribe, *American Constitutional Law* § 6-26, at 490-91, § 6-27, at 497 (2d ed. 1988); Ausness, *Cigarette Company Liability: Preemption, Public Policy and Alternative Compensation System*, 39 *Syracuse L. Rev.* 897, 924-39 (1988).

²²⁸ See, e.g., *Palmer v. Liggett Group, Inc.*, 825 F.2d 620, 627 (1st Cir. 1987) (it is inconceivable that Congress intended views of single state or single state jury to supercede national interests); *Forster*, 437 N.W.2d at 659 (if state claims allowed, state-imposed regulatory scheme effectively will be superimposed on federal scheme).

²²⁹ See, e.g., *Marchant v. Dayton Tire & Rubber Co.*, 836 F.2d 695, 699 n.2 (1st Cir. 1988) (industry-wide custom not to provide warning admissible but not controlling); *Dunn v. Wixom Bros.*, 493 So. 2d 1356, 1360 (Ala. 1986) (custom not to provide warning admissible but not controlling).

claims are brought to trial.

1. Increased Utilization of Experts

An earlier discussion observed that expert witnesses play a less important role in failure-to-warn litigation than in litigation involving allegedly defective product designs.²³⁰ With respect to design, it is almost inconceivable that a case involving any significant complexity would be tried without both sides relying heavily on experts.²³¹ The expert testimony could be expected more often than not to be rigorous, reflecting confidence in its conclusions.²³² In contrast, courts have made clear that experts are not required in connection with the issue of whether the defendant supplied adequate warnings of product-related risks,²³³ even when the case involves complex technology.²³⁴ This reasoning generates a dangerous asymmetry, because plaintiffs often choose to rely on experts in warnings cases.²³⁵ And although it is often the case that the expert testimony relates to whether the defendant reasonably should have known of the risks not warned of,²³⁶ or to the technical background describing the risk and its non-obvious qualities²³⁷ (in which cases warnings experts tend to show the same rigor as they display in design cases),²³⁸ in a large percentage of failure-to-warn cases the main function of plaintiffs' experts is to offer speculative and conclusory opinions that

²³⁰ See text accompanying note 141 *supra*.

²³¹ See generally J. Henderson & A. Twerski, *supra* note 88, at 639-46 (noting, *inter alia*, that expert testimony is required in design-defect cases to show alternative design feasibility).

²³² We do not argue that expert testimony in design cases is free of difficulties. See authorities cited in note 164 *supra*. The point is that expert testimony ought to play at least something close to the role in failure-to-warn litigation that it now plays in design-defect cases.

²³³ See, e.g., *Marchant*, 836 F.2d at 701 ("Few questions are 'more appropriately left to a common sense lay judgment than that of whether a written warning gets its message across to an average person.'") (quoting *Ferebee v. Chevron Chem. Co.*, 552 F. Supp. 1293, 1304 (D.D.C. 1982)); *Cocco v. Deluxe Systems, Inc.*, 25 Mass. App. Ct. 151, 154, 516 N.E.2d 1171, 1174 (1987) (jury competent to decide adequacy of warning without expert testimony even if relevant technology is complex).

²³⁴ See *Cocco*, 25 Mass. App. Ct. at 154, 516 N.E.2d at 1174.

²³⁵ See, e.g., *Long v. Deere & Co.*, 238 Kan. 766, 775-76, 715 P.2d 1023, 1031 (1986); *Downie v. Kent Prods.*, 122 Mich. App. 722, 732, 333 N.W.2d 528, 533 (1983); *Rego Co. v. Brannon*, 682 S.W.2d 677, 680-81 (Tex. Ct. App. 1984).

²³⁶ See, e.g., *Outlaw v. Firestone Tire & Rubber Co.*, 770 F.2d 1012, 1013-14 (11th Cir. 1985); *Dartez v. Fibreboard Corp.*, 765 F.2d 456, 469 (5th Cir. 1985); *Cipollone v. Liggett Group, Inc.*, 683 F. Supp. 1487, 1496 (D.N.J. 1988), *aff'd in part, rev'd in part*, 883 F.2d 541 (3d Cir. 1990).

²³⁷ See, e.g., *Schneider v. Cessna Aircraft Co.*, 150 Ariz. 153, 160-61, 722 P.2d 321, 328-29 (1985); *Kroger Sav-On Store v. Presnell*, 515 N.E.2d 538, 544 (Ind. Ct. App. 1987).

²³⁸ In a manner of speaking, these cases address the "design aspects" of warnings claims. Occasionally, defendants object that this sort of testimony only relates to the design issue, leaving the failure-to-warn claim unsupported by proof. See, e.g., *Rego Co.*, 682 S.W.2d at 680.

the warnings supplied by defendants were inadequate.²³⁹ While some courts object to this use of experts in warnings litigation,²⁴⁰ a greater number approve.²⁴¹

These patterns must change. Whenever expert testimony would help jurors to assess the validity of a failure-to-warn claim, judges should require *both* sides to support their arguments regarding obviousness, sufficiency, and causation with testimony from qualified experts who give more than conclusory opinions that warnings are or are not adequate, or that better warnings would or would not have made a difference. We are urging, in effect, that courts pressure litigants to develop more adequate behavioral models with which to sort out valid and invalid warnings claims. At the same time, courts should eschew reliance on the uninformed discourse that currently dominates warnings litigation. Juries are competent to judge some issues on their own, and should be left to do so. On balance, we would like to see more, rather than less, expert testimony in these cases. But, in any case, courts must insist that it be rigorous.

At a time when the role of experts in products litigation generally has come under heavy attack,²⁴² it may seem odd to insist that behavioral experts be utilized more frequently. Indeed, our own analysis has suggested that expert testimony can be especially problematic in the failure-to-warn context.²⁴³ However, in an area so devoid of substance and so overblown with mere posturing, judicial insistence that experts speak with greater authority makes considerable sense. As we have observed, the sciences relevant to warnings claims are softer than those that inform decisions regarding allegedly defective designs.²⁴⁴ However, experts could serve to educate the courts as to the truly difficult policy choices

²³⁹ See, e.g., *Ponder v. Warren Tool Corp.*, 834 F.2d 1553, 1557 (10th Cir. 1987); *Salvi v. Montgomery Ward & Co.*, 140 Ill. App. 3d 896, 903-04, 489 N.E.2d 394, 399 (1986); *Firestone Tire & Rubber Co. v. Battle*, 745 S.W.2d 909, 914 (Tex. Ct. App. 1988).

²⁴⁰ See, e.g., *Shell Oil Co. v. Gutierrez*, 119 Ariz. 426, 434, 581 P.2d 271, 279 (1978); *Wenrick v. Schloemann-Siemag Aktiengesellschaft*, 361 Pa. Super. 137, 151, 522 A.2d 52, 59 (1987).

²⁴¹ See cases cited in note 141 *supra*; see also Annotation, *Products Liability: Admissibility of Expert or Opinion Evidence as to Adequacy of Warning Provided to User of Product*, 26 A.L.R. 4th 377 (1983) (compiling products liability cases determining admissibility of expert evidence concerning adequacy of warning).

²⁴² See, e.g., *Chaulk v. Volkswagen of Am., Inc.*, 808 F.2d 639, 643-45 (7th Cir. 1986) (Posner, J., dissenting) (arguing that lay jury should not be allowed to condemn entire industry relying on unbelievable expert testimony). See generally Epstein & Klein, *The Use and Abuse of Expert Testimony in Products Liability Actions*, 17 Seton Hall L. Rev. 656 (1987) (arguing that courts should screen out self-appointed experts and unscientific testimony); Hocnig, *Drawing the Line on Expert Opinion*, 8 J. Prod. Liab. 335 (1985) (suggesting guidelines for limiting abuse of expert testimony in products litigation).

²⁴³ See notes 138-41 and accompanying text *supra*.

²⁴⁴ See text accompanying note 130 *supra*.

that attend this special genre of products litigation.²⁴⁵ Courts could insist, on threat of dismissal of actions, that plaintiffs bring forth the relevant expertise. And they could insist, on threat of giving cases to juries on instructions favorable to plaintiffs, that defendants respond in kind. In this area of the law, adding expertise to the evidentiary mix at trial could be a real blessing.

2. *Elimination of Causation Presumptions*

We showed above how a presumption of proximate causation cannot be derived logically from comment j to section 402A of the Restatement.²⁴⁶ Now we argue that such a presumption makes no good sense on the merits. In failure-to-warn cases, causation analysis is already a flight into fancy. When a presumption favors the plaintiff, the defendant is basically precluded from the opportunity to convince a court to rule as a matter of law that the failure to warn was not the proximate cause of plaintiff's harm.²⁴⁷ In some instances, giving the plaintiff the benefit of the doubt regarding causation is fair to both sides. For example, when the victim is killed in an accident with respect to which there are no eyewitnesses, and it is clear that a reasonable person in the decedent's position probably would have read and heeded the missing warning, allowing a jury to conclude that the decedent would have heeded an adequate warning is appropriate.²⁴⁸ However, when all the circumstantial evidence (save the plaintiff's self-serving testimony) points the other way,

²⁴⁵ For example, we envisage that experts with "decision-theory" expertise could contribute to the sophistication of failure-to-warn litigation. For a description of the experimental work by these scholars, see authorities cited in notes 174-76 *supra*.

²⁴⁶ See text accompanying notes 50-56 *supra*.

²⁴⁷ With rare exception, the causation question is considered to be a jury issue. See, e.g., *Graham v. Wyeth Laboratories*, 666 F. Supp. 1483, 1499 (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, 56-57, 388 N.E.2d 541, 557 (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. Burroughs Wellcome Co.*, 318 N.C. 352, 360-61, 348 S.E.2d 772, 777 (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, 356-58 (2d Cir.) (no evidence that physician would have warned patient of risk of contracting polio from vaccine; thus, if warning was adequate, no proximate cause as matter of law), cert. denied, 484 U.S. 898 (1987); *Bloxom v. Bloxom*, 512 So. 2d 839, 850-51 (La. 1987) (failure to warn adequately in driver's manual about intense heat emanating from catalytic converter not cause of fire because owner said he never read manual; presumption of causation rebutted).

²⁴⁸ See, e.g., *Cohen v. St. Regis Paper Co.*, 109 A.D.2d 1048, 487 N.Y.S.2d 406 (plaintiff's decedent suffocated from carbon dioxide fumes from dry ice; although there were no eyewitnesses and decedent's fellow employees testified that decedent had been warned, court held that issue of proximate cause was jury question), aff'd, 65 N.Y.2d 752, 481 N.E.2d 562, 492 N.Y.S.2d 22 (1985).

shifting the burden to the defendant prevents a court from disposing of even a patently weak claim as a matter of law.²⁴⁹ Because the defendant must prove that her failure to warn was not the cause of injury, the court is almost duty-bound to send virtually every proximate causation issue, no matter how weak the factual basis, to the jury for determination. If we truly seek an active judicial role in controlling the kinds of warnings cases that reach the jury, the causation presumption must be abandoned in favor of a more fact-intensive approach.²⁵⁰

CONCLUSION

In the branch of products liability commentary devoted to generically dangerous products, much attention has been paid in recent years to liability for defective product designs. In contrast, failure-to-warn litigation has largely escaped serious analysis. Almost everyone appears to have assumed that traditional negligence doctrine is adequate to the task of deciding warnings cases. Breaking ranks with the majority of commentators, we argue that negligence doctrine in the context of failure-to-warn litigation is little more than an empty shell. In most cases, the elements of the warnings cause of action require plaintiffs to do little more than mouth empty phrases. From the plaintiff's perspective, there is undoubtedly a certain attractiveness to a tort without a meaningful standard of care or any serious requirement of proving causation. From a broader social perspective, however, such a tort is too lawless to be fair or useful.

To cure this collapse of failure-to-warn doctrine, we urge that judges engage more aggressively in both lawmaking and law-applying. We have considered the possibility of replacing the nonfeasance-oriented failure-to-warn regime with a misfeasance-oriented system of misrepresentation-based liability. Perhaps if the judicial climate today were, as it was a decade ago, firmly committed to expanding products liability wherever possible, we would recommend that such a drastic change be implemented by statute. However, we perceive that judges today may be more receptive to arguments of the sort we are making.

If this perception is accurate, and if we have fairly and persuasively

²⁴⁹ See, e.g., *Butz v. Werner*, 438 N.W.2d 509 (N.D. 1989) (plaintiff injured while being towed behind motor boat in inner tube at very high speed; court recognized presumption that warning would have been heeded by plaintiff and affirmed judgment for plaintiff based on jury finding that defendant's failure to warn contributed to causing accident); see also Gershonowitz, *The Strict Liability Duty to Warn*, 44 Wash. & Lee L. Rev. 71, 95-106 (1987) (emphasizing the role of materiality and causation as crucial to limiting failure-to-warn doctrine).

²⁵⁰ See *Raney v. Owens-Illinois, Inc.*, 897 F.2d 94, 95-96 (2d Cir. 1990) (plaintiff not entitled to causation presumption, but "causation may sometimes be inferred from the facts and circumstances . . .").

presented the shortcomings in current failure-to-warn doctrine, perhaps courts will respond generally with good sense and moderation. If they do not, legislation along the lines of our analysis may yet be called for. It is imperative that failure-to-warn litigation become subject to the rule of law. Talk is cheap, but courts must recognize that the education of consumers through product warnings is not. For too long these easy cases have made bad law. The time for change has come.

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