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New Citadel: A Reasonably Designed Products Liability Restatement

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THE NEW CITADEL: A REASONABLY DESIGNED PRODUCTS LIABILITY RESTATEMENT

INTRODUCTION

Laws, like products, can grow old and useless, and can be defectively designed. This Note concerns a Restatement provision, revolutionary when produced, that now stands so obsolete in the wake of decades of change that some demand a new model. This Note discusses the newly designed law about product design.

The most frequently cited provision of the American Law Institute's *Restatement (Second) of Torts* is section 402A:[1] "Special Liability of Seller of Product for Physical Harm to User or Consumer."[2] Before the publication and adoption of section 402A in 1964, an injured plaintiff had to choose between a negligence action and a contract action based on warranty.[3] Section 402A greatly expanded strict liability for harmful products and initiated an explosion of litigation.[4] Consequently, more causes of action alleging strict liability have been brought in the area of products liability than in any other area of tort law.[5]

In three decades of applying section 402A, state courts have established varying interpretations of the provision[6] and a majority interpretation has emerged.[7] Responding to the judge-made law flowing

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1 Henry J. Reske, *Experts Tackle Torts Restatement*, A.B.A. J., Aug. 1992, at 18.

2 The text of § 402A reads:

> (1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if
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> (a) the seller is engaged in the business of selling such a product, and (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.
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> (2) The rule stated in Subsection (1) applies although
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> (a) the seller has exercised all possible care in the preparation and sale of his product, and (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

RESTATEMENT (SECOND) OF TORTS § 402A (1965).

3 Charles E. Cantu, *Reflections On Section 402A of the Restatement (Second) of Torts: A Mirror Crack'd*, 25 GONZ. L. REV. 205, 205 n.3 (1989-90).

4 *Id.* at 206.

5 *Id.* at 206-07. Section 402A was not really a descriptive restatement of existing law, but a prescriptive statement of what the law should be. *See infra* note 26 and accompanying text.

6 John L. Diamond, *Eliminating the "Defect" in Design Strict Products Liability Theory*, 34 HASTINGS L.J. 529, 552 (1983) ("[D]ifferent courts ostensibly adhering to section 402A endorse a variety of conflicting theoretical approaches.").

7 RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. c (Tentative Draft No. 1, 1994) [hereinafter RESTATEMENT (THIRD) OF TORTS].

from section 402A, Professors Henderson and Twerski proposed a revision of section 402A in a law review article and subsequently were appointed co-reporters of the products liability provisions of the *Restatement (Third) of Torts*.[8] Since then, the co-reporters have published a tentative draft of some of those provisions ("the Tentative Draft" or "the new Restatement").[9]

The new Restatement departs from section 402A by, among other things, providing separate standards of liability for manufacturing and design defects. In accordance with the overwhelming majority of state courts, it applies a strict liability standard to manufacturing defects and a risk-utility standard to design defects.[10] This Note treats the new Restatement's standard for defective product design. According to section 2(b) of the new Restatement:

> A product is defective in design when the foreseeable risks of harm posed by the product could have been reduced by the adoption of a reasonable alternative design by the seller or a predecessor in the commercial chain of distribution and the omission of the alternative design renders the product not reasonably safe[.][11]

Comment c places the burden of proof on the plaintiff.[12]

After presenting background on section 402A, this Note discusses the new Restatement standard for defective design and five states' tests that conflict with it. These five states use three different tests as alternatives to risk-utility: Alaska and California apply a two-pronged test—risk-utility and consumer expectations—with the burden of proof on the defendant as to risk-utility; Kansas and Nebraska have straightforward consumer expectations tests; and Pennsylvania simply holds the manufacturer as the guarantor of the product's safety.[13] This Note examines the new Restatement's risk-utility standard and shows how one could construe the standard to be stricter than an unadorned negligence standard. This Note then analyzes the problems specific to each of the four standards and contends that risk-utility is the most desirable approach. This Note limits its analysis to

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8 James A. Henderson, Jr. & Aaron D. Twerski, *A Proposed Revision of Section 402A of the Restatement (Second) of Torts*, 77 CORNELL L. REV. 1512, 1513 (1992).

9 RESTATEMENT (THIRD) OF TORTS, *supra* note 7 (covering the subjects of product defectiveness, causation, and affirmative defenses).

10 *Id.* § 2 cmt. a. This risk-utility standard is to be distinguished from the broad-based standard for product-category liability that considers the risk and utility of a product to *society* and not just to the user. *See* O'Brien v. Muskin Corp., 463 A.2d 298 (N.J. 1983).

Also, under the Tentative Draft, the *seller's* liability, by virtue of its dependence on the manufacturer's conduct, is somewhat strict. Therefore, when this Note refers to the Tentative Draft's risk-utility standard, it is with the *manufacturer's* liability in mind.

11 RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2. This provision has been cited by at least one court. *See* Smith v. Keller Ladder Co., 645 A.2d 1269, 1271 (N.J. Super. 1994).

12 RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2 cmt. c.

13 *See infra* part III.C.

durable products and therefore omits discussion of prescription drugs.[14]

I
SECTION 402A

A. Unrest About the Citadel: Social Justice & the Shift from Contract to Tort

In the early 1960s, courts and commentators were concerned with affording plaintiffs injured by products easier legal recourse. In a 1960 case arising from an automobile crash, *Henningsen v. Bloomfield Motors, Inc.*,[15] the New Jersey Supreme Court eliminated the privity requirement under the doctrine of implied warranty of merchantability. The *Henningsen* court justified allowing injured plaintiffs to sue manufacturers under this new theory by describing a manufacturer-plaintiff setting as one defined by gross inequality of bargaining power and by standard form contracts used by all, or nearly all, manufacturers in an industry. Consumers in an industrial economy, therefore, were presented with a choice to take it or leave it, which was little choice indeed.[16] "[T]he demands of social justice," the court wrote, did not permit such a sharp bargain.[17]

In a 1963 case, *Greenman v. Yuba Power Products, Inc.*,[18] Justice Traynor of the California Supreme Court also drew from a sense of social justice to establish strict liability in tort as the standard for defective products. Characterizing consumers as "powerless,"[19] Traynor recited the maxim that "[t]he remedies of injured consumers ought not to be made to depend upon the intricacies of the law of sales"[20] and thereby allowed plaintiffs to seek effective remedy under tort law.

Parallelling the revolutionary courts, commentators also paved the way toward strict products liability. In 1960, Professor William Prosser's influential essay, *The Assault Upon the Citadel*,[21] called for courts to recognize the doctrine of strict liability in tort. Prosser was the Reporter for the *Restatement (Second) of Torts* and he drafted section 402A.[22] Comment c to that section reflects the sense of justice that propelled products liability forward to the present day: "the seller, by

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14 For the proposed standard for prescription drugs, see RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 4.

15 161 A.2d 69 (N.J. 1960).

16 *Id.* at 83-86.

17 *Id.* at 83 (citing Mazetti v. Armour & Co., 135 P. 633, 635 (Wash. 1913)).

18 377 P.2d 897 (Cal. 1963).

19 *Id.* at 901.

20 *Id.* (citing Ketterer v. Armour & Co., 200 F. 322, 323 (S.D.N.Y. 1912)).

21 William L. Prosser, *The Assault Upon the Citadel (Strict Liability to the Consumer)*, 69 YALE L.J. 1099 (1960).

22 *See* AMERICAN LAW INSTITUTE, 38TH ANNUAL MEETING: PROCEEDINGS 87 (1961).

marketing his product for use and consumption, has undertaken and assumed a special responsibility toward any [consumer] who may be injured by it."[23]

B. Section 402A: Wide Acceptance & Differing Interpretations

Adopted by the ALI in 1964, section 402A of the *Restatement (Second) of Torts* has since been accepted as the nearly universal rule in cases that involve injuries caused by defective products.[24] In 1964 there was but one significant case, *Greenman v. Yuba Power Products, Inc.*, that had adopted strict liability.[25] Thus, 402A did not restate existing law, but rather proposed a new solution to then existing problems, sparking a significant change in plaintiffs' prospects for recovery.[26] Today, there is widespread acceptance of the rhetoric and principles behind section 402A, but much disagreement and confusion over what standards to apply to different types of product defects.[27] Hence, the co-reporters of the new Restatement claim that "the time is ripe for a true restatement of products liability law."[28]

Section 402A imposes liability on the manufacturer of "any product in a defective condition unreasonably dangerous"[29] but fails to distinguish between manufacturing and design defects. Therefore, courts performed the task of categorizing product defects as manufacturing defects, design defects, or defects arising from failure to warn.[30] They were compelled to do so because the fundamental dif-

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23 RESTATEMENT (SECOND) OF TORTS § 402A cmt. c (1965). The idea of justice continues to pervade commentary on products liability. *See, e.g.*, MARSHALL S. SHAPO, PRODUCTS LIABILITY AND THE SEARCH FOR JUSTICE (1993).

> [I]n products liability, a central component of justice is the vulnerable positions of consumers. A related element of justice lies in the moral innocence of the claimant .... [T]he moral innocence of the plaintiff takes on special significance because of its joinder with his or her vulnerability and with the very fact of injury itself.

Id. at 137.

24 *See* Cantu, *supra* note 3, at 216.

25 1 LOUIS R. FRUMER & MELVIN I. FRIEDMAN, PRODUCTS LIABILITY § 3.03[1], at 3-135 (1994) (stating that "[t]he first significant decision to apply the doctrine of strict tort liability to a products liability case was decided in California [by the] California Supreme Court ... in Greenman v. Yuba Power Products, Inc. [377 P.2d 897 (Cal. 1963)]").

26 Henderson & Twerski, *supra* note 8, at 1526.

27 *Id.* at 1512, 1517.

28 *Id.* at 1529.

29 RESTATEMENT (SECOND) OF TORTS § 402A (1965).

30 *See* Henderson & Twerski, *supra* note 8, at 1515; Raymond J. Kenney, Jr., *Products Liability in Massachusetts Enters the 1990's*, 75 MASS. L. REV. 70, 70 (1990); Edward C. Martin, *Alabama's Extended Manufacturer's Liability Doctrine (AEMLD)*, 13 AM. J. TRIAL ADVOC. 983, 1004-05 (1990); John C. Mulgrew, Jr., *Strict Tort Products Liability in Illinois—An Updated Exposition*, 76 ILL. B.J. 812, 816-18 (1987).

See, e.g., Shanks v. Upjohn Co., 835 P.2d 1189, 1194 (Alaska 1992); Caterpillar Tractor Co. v. Beck, 593 P.2d 871, 881 (Alaska 1979); Gomulka v. Yavapai Machine & Auto Parts, 745 P.2d 986, 988-89 (Ariz. Ct. App. 1987); Barker v. Lull Eng'g Co., 573 P.2d 443 (Cal.

ferences between the defect types necessitated different legal approaches.[31]

Courts have used a variety of standards to determine the existence of a product design defect; the foremost are risk-utility and consumer expectations.[32] Today, a majority of courts use some form of the risk-utility approach,[33] which derives from the negligence stan-

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1978); Camacho v. Honda Motor Co., 741 P.2d 1240, 1247 (Colo. 1978); Zyferman v. Taylor, 444 So. 2d 1088, 1091 (Fla. Dist. Ct. App. 1984); Toner v. Lederle Lab., 732 P.2d 297, 316 (Idaho 1987) (Bakes, J., concurring); Hoffman v. E.W. Bliss, Co., 448 N.E.2d 277, 281 (Ind. 1983); Ulrich v. Kasco Abrasives Co., 532 S.W.2d 197, 200 (Ky. 1976); Halphen v. Johns-Manvile Sales Corp., 484 So. 2d 110, 113 (La. 1986); Ziegler v. Kawasaki Heavy Indus., 539 A.2d 701, 703 (Md. Ct. Spec. App. 1988).

31 *See infra* note 38 and accompanying text. A product's manufacturer may incur liability either by producing a unit with some unintended flaw, a manufacturing defect, or by producing a unit precisely as intended but which could reasonably have been done "better." A material flaw that causes a glass bottle to explode is a clear example of a manufacturing defect; the use of materials that make a container particularly likely to explode might illustrate a defect in design. Manufacturing defects generally present easy questions: did the product conform to the specifications of its design or did it not? Design defects pose a more subtle question: could the product have been made safer without an unreasonable sacrifice in functionality or increase in expense?

32 *See* Henderson & Twerski, *supra* note 8, at 1520. For a fuller discussion of these and other approaches to defective design, *see infra* parts II-III.

33 *See* 2 AMERICAN LAW OF PRODUCTS LIABILITY 3d § 28:11, at 213 (Timothy E. Travers ed., 1987 & Supp 1994); Sheila L. Birnbaum, *Unmasking the Test for Design Defect: From Negligence [to Warranty] to Strict Liability to Negligence*, 33 VAND. L. REV. 593, 605 (1980); Cantu, *supra* note 3, at 220; Henderson & Twerski, *supra* note 8, at 1520; Christine M. Moylan, *In Pursuit of the Appropriate Standard of Liability for Defective Product Designs*, 42 ME. L. REV. 453, 460 (1990); Ellen Wertheimer, *Unknowable Dangers and The Death of Strict Products Liability: The Empire Strikes Back*, 60 CINN. L. REV. 1183, 1200 (1992).

See, e.g., Hull v. Eaton Corp., 825 F.2d 448 (D.C. Cir. 1987) (applying District of Columbia law); Dreisonstok v. Volkswagenwerk, A.G., 489 F.2d 1066 (4th Cir. 1974) (applying Virginia law); Miller v. Todd, 551 N.E.2d 1139 (Ind. 1990); Philipe v. Browning Arms Co., 375 So. 2d 151 (La. Ct. App. 1979); Ziegler v. Kawasaki Heavy Indus., 539 A.2d 701 (Md. Ct. Spec. App. 1988); McCormack v. Hankscraft Co., 154 N.W.2d 488 (Minn. 1967); McCollum v. Grove Mfg. Co., 293 S.E.2d 632 (N.C. Ct. App. 1982); Thibault v. Sears, Roebuck & Co., 395 A.2d 843 (N.H. 1978); Voss v. Black & Decker Mfg. Co., 450 N.E.2d 204 (N.Y. 1983); Knitz v. Minster Mach. Co., 432 N.E.2d 814 (Ohio 1982); Wilson v. Piper Aircraft Corp., 577 P.2d 1322 (Or. 1978); Phillips v. Kimwood Mach. Co., 525 P.2d 1033 (Or. 1974); Claytor v. G.M. Corp., 286 S.E.2d 129 (S.C. 1982); Mickle v. Blackmon, 166 S.E.2d 173 (S.C. 1969); Turner v. General Motors Corp., 584 S.W.2d 844 (Tex. 1979); Magic Chef, Inc. v. Sibley, 546 S.W.2d 851 (Tex. Civ. App. 1977); Helicoid Gage Div. v. Howell, 511 S.W.2d 573 (Tex. Civ. App. 1974); Morningstar v. Black & Decker Mfg. Co., 253 S.E.2d 666 (W. Va. 1979); Fischer v. Cleveland Punch & Shear Works Co., 280 N.W.2d 280 (Wis. 1979).

But see Ronald F. Banks & Margaret O'Connor, *Restating the Restatement (Second), Section 402(A)—Design Defect*, 72 OR. L. REV. 411, 413 (1993) ("Our review of the cases indicates that only a small minority of courts actually adopt a risk-utility balancing test as a sole method for determining a design defect.").

See generally John W. Wade, *On The Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 844 (1973) (discussing whether the social usefulness of a product is so high that a defendant should not be liable for the injuries).

dard originated in *United States v. Carroll Towing Co.*[34] Courts also have found guidance in Wade's seven factors,[35] which enumerate the relevant considerations in a risk-utility analysis of product design.

The consumer expectations test bases liability on the disappointment of a consumer's expectations. Promoting consumer expectations as a test for defective design, Professor Marshall Shapo wrote, "Judgments of liability for consumer product disappointment should center initially and principally on the portrayal of the product which is made, caused to be made or permitted by the seller."[36] Most of the courts that make recovery dependent on reasonable consumer expectations also consider the availability of a reasonable, safer alternative design.[37]

II

THE NEW RESTATEMENT: RISK UTILITY

The Tentative Draft's standard for defective product design is a risk-utility test. Under this test, liability attaches if "the seller or a predecessor in the distributive chain failed to adopt a reasonable alternative design that would, at acceptable cost, have reduced the foreseeable risks of harm posed by the product and its omission rendered it not reasonably safe."[38]

A. The Risk-Utility Test

A majority of jurisdictions have adopted a risk-utility approach to defective design.[39] Under risk-utility analysis, a product's design is defective if its inherent danger outweighs its utility.[40] According to Prosser and Keeton, "[t]he theory underlying this approach is that

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34 159 F.2d 169, 173 (2d Cir. 1947) ("[L]iability depends on whether [the burden] is less than [the loss] multiplied by [the probability]."). *See* Moylan, *supra* note 33, at 462. "The risk-utility test as employed in defective design cases has been referred to as 'merely a detailed version of Judge Learned Hand's negligence calculus.' " *Id.* (quoting Prentis v. Yale Mfg., 365 N.W.2d 176, 184 (Mich. 1984)). The factors considered in a traditional negligence action are essentially the same as those under a risk utility analysis in strict liability.

35 Wade, *supra* note 33, at 837-38. For text of the factors, see *infra* text accompanying note 55. For a case using the Wade factors, see Caterpillar Tractor Co. v. Beck, 593 P.2d 871, 883 (Alaska 1979). *See generally* W. Kip Viscusi, *Wading Through the Muddle of Risk-Utility Analysis*, 39 AM. U. L. REV. 573 (1990) (review and critique of Wade's seven factors).

36 Marshall S. Shapo, *A Representational Theory of Consumer Protection: Doctrine, Function and Legal Liability for Product Disappointment*, 60 VA. L. REV. 1109, 1370 (1974). *See also* JAMES A. HENDERSON, JR. & AARON D. TWERSKI, PRODUCTS LIABILITY: PROBLEMS AND PROCESS 509 (2d ed. 1992) (listing cases that provide tests for defect wholly or partly in terms of consumer expectations).

37 *See* Henderson & Twerski, *supra* note 8, at 1520, 1533.

38 RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2 cmt. c.

39 *See supra* note 33 and accompanying text.

40 WILLIAM L. PROSSOR & W. PAGE KEETON, THE LAW OF TORTS § 99, at 699 (5th ed. 1984).

virtually all products have both risks and benefits and that there is no way to go about evaluating design hazards intelligently without weighing danger against utility."[41]

The "feasible alternative design" concept entered products liability through the risk-utility doctrine.[42] Some courts and commentators believe that the most effective way to demonstrate that the risks of a design outweigh its benefits is to show that an alternative design existed which reduced the danger while retaining many or most of the benefits.[43] The feasible alternative design is clearly adopted in the new Restatement's wording: if "the foreseeable risks of harm . . . could have been reduced by the adoption of a reasonable alternative design"[44] then the product was defectively designed. Because risk-utility is a cost-benefit analysis, the notion of reasonableness is implicit.[45]

B. What Led to the New Restatement?

The new Restatement distinguishes defective design from other sources of product liability and adopts a risk-utility test.[46] While a manufacturing defect implicates only a limited number of nonconforming products, design defect litigation may condemn the defendant's entire product line.[47] This distinction has been lost on many courts at once enraptured by notions of "strict products liability," confused by the suggestion of fault-based concepts in products liability, and confronted with the unworkability of determining on any "strict" basis whether a design is defective.[48] The new Restatement acknowledges the vastly different character of manufacturing and design defects and advocates a risk-utility test to determine whether a particular design is defective.[49]

The standard for determining defective design differs from the standard for determining defective manufacturing because in the former case there is no blueprint against which to measure a product's shortcomings. In the case of a manufacturing defect, the plaintiff

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41 *Id.*

42 *See* Wertheimer, *supra* note 33, at 1200.

43 *Id. See, e.g.*, Habecker v. Clark Equip. Co., 942 F.2d 210, 215 (3d Cir. 1991) (stating that fact finder can only determine whether design was defective after hearing evidence of what designs were feasible at time of manufacture and whether they were in fact safer). "The state of the art defense, in which the defendant demonstrates that the product was as safe as possible given the state of industry knowledge at the time of manufacture, also entered through the [risk-utility] door." Wertheimer, *supra* note 33, at 1200.

44 *See* RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2(b).

45 This Note later contends that the risk-utility approach is, functionally, the same as negligence. *See infra* part IV.A.2.

46 RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2.

47 *See* Cantu, *supra* note 3, at 220-21.

48 *See infra* part IV.

49 *See* RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2.

must prove only that a specific departure from the intended design of a product proximately caused the injuries. To prove that a product's design is defective, the plaintiff must meet an independent risk-utility standard. This independent standard does not encompass society-wide risks and utilities. The new Restatement does not suggest that judges determine whether a category of products is desirable in the abstract.[50] A power drill, for example, is not defective merely because its design poses *some* risk to society.[51] Rather, the risks and utilities of one particular means of drilling holes are evaluated in light of the risks and utilities of other means of achieving the same ends.[52] This approach puts upon the plaintiff the burden of proving that the aspect of the design claimed to have proximately caused the injury could have been made safer at a reasonable cost. This is the new Restatement's idea of a "reasonable alternative design," and it is the linchpin of the proposed risk-utility approach to design defects.[53]

Risk-utility offers a structured approach to the determination of whether a product's design is defective. This structured approach is exemplified by Wade's seven factors.[54] These provide that in weighing risk and utility, a court should consider:

> (1) The usefulness and desirability of the product—its utility to the user and to the public as a whole.
>
> (2) The safety aspects of the product—the likelihood that it will cause injury, and the probable seriousness of the injury.
>
> (3) The availability of a substitute product which would meet the same need and not be as unsafe.
>
> (4) The manufacturer's ability to eliminate the unsafe character of the product without impairing its usefulness or making it too expensive to maintain its utility.
>
> (5) The user's ability to avoid danger by the exercise of care in the use of the product.
>
> (6) The user's anticipated awareness of the dangers inherent in the product and their avoidability, because of general public knowledge of the obvious condition of the product, or of the existence of suitable warnings or instructions.

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50 Some courts, however, have gone in the direction of categorical products liability. *See, e.g.*, O'Brien v. Muskin Corp., 463 A.2d 298, 306 (N.J. 1983) (affirming reversal of a summary judgment for defendants on the ground that "even if there are no alternative methods of making bottoms for above-ground pools, the jury might have found that the risks posed by the pool outweighed its utility" and thus contemplating condemning an entire category of products as defective).

51 *See* Henderson & Twerski, *supra* note 8, at 1517.

52 RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2(b) & cmt. a.

53 *Id.*

54 Wade, *supra* note 33, at 837-38.

> (7) The feasibility, on the part of the manufacturer, of spreading the loss by setting the price of the product or carrying liability insurance.[55]

These factors provide some guidance to the risk-utility approach in contrast to the open-ended consumer expectations standard.

The new Restatement, by imposing risk-utility balancing, allocates risks between product sellers and users based on their abilities to bear them efficiently.[56] The manufacturer of a power drill, for example, would find it difficult and extremely expensive to desigu the product so that it posed no danger even when used carelessly. A manufacturer, therefore, should not be held liable for injuries suffered by a careless user. Instead, the manufacturers should be held liable when the desigu of the product endangers the reasonably careful user. The co-reporters contend, "Imposing the unyielding liability rule established for manufacturing defects on design risks would cause more careful product users to subsidize less careful users, a result that would be both inefficient and unfair. For many inherent product risks, therefore, users are the best risk-minimizers."[57]

Beyond substantive considerations, the new Restatement also promotes procedural efficiency in the sense that it dovetails with the approach already adopted in most jurisdictions. A majority of courts already impose a risk-utility test on defective desigu, and most courts that apply other tests temper their analyses with risk-utility balancing.[58] Reflecting the majority's position on defective design, the new Restatement promotes further consistency in an important area of tort law. As judges and lawyers come to a more consistent understanding of the field, products liability litigation becomes more efficient. In light of the foregoing, Henderson and Twerski endorse the adoption by a majority of courts of a risk-utility balancing standard for defective design.[59]

III
STATE STANDARDS IN CONFLICT WITH THE NEW RESTATEMENT

Section 402A offered courts little guidance in formulating approaches to defective design. As discussed above, the majority of states eventually adopted some form of the risk-utility test for defective design. Five states, however, developed standards in conflict with the new Restatement. This part examines the origins and elements of the

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55 *Id.*
56 RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2 cmt. c.
57 Henderson & Twerski, *supra* note 8, at 1517.
58 *Id.* at 1520, 1533.
59 *Id.* at 1517.

three tests that these five states have adopted and compares them to the risk-utility standard.

A. Straightforward Consumer Expectations

1. *Kansas*

The Supreme Court of Kansas adopted the consumer expectations test in *Lester v. Magic Chef*.[60] The *Lester* court upheld a jury instruction providing that a product is unreasonably dangerous if it is dangerous beyond the expectations of an ordinary consumer with knowledge "common to the community as to [the product's] characteristics."[61] The court held that such an instruction accords with comment i of section 402A.[62]

Since *Lester*, commentators have classified Kansas as a pure Restatement consumer expectations jurisdiction.[63] In the ten years since the decision the Supreme Court of Kansas consistently has applied the consumer expectations test.[64] As recently as 1988, the Tenth Circuit reaffirmed Kansas' use of the consumer expectations approach.[65]

2. *Nebraska*

In *Rahmig v. Mosley Machinery Co.*,[66] the Supreme Court of Nebraska applied a "user-contemplation" test and overruled the then leading case, *Nerud v. Haybuster Manufacturing*[67] "insofar as feasibility or reasonable alternative design must be proved by a plaintiff to prevail on a cause of action for negligent design in a products liability case."[68] The decision was motivated partly by a perceived conflict between the feasible alternative design (risk-utility) approach and Ne-

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60 641 P.2d 353 (Kan. 1982). This test was adopted to define the phrase "unreasonably dangerous" in RESTATEMENT (SECOND) OF TORTS § 402A cmt. i (1965).

61 641 P.2d at 357.

62 *Id.*

63 *See, e.g.*, Donna Fowler, Comment, *Products Liability: Kansas Adopts the Consumer Expectation Test to Define "Unreasonably Dangerous" in Design Defect Cases*, 22 WASHBURN L.J. 397 (1983).

64 Barnes v. Vega Indus., 676 P.2d 761 (Kan. 1984); Betts v. General Motors Corp., 689 P.2d 795 (Kan. 1984).

65 Wheeler v. John Deere Co., 862 F.2d 1404 (10th Cir. 1988).

66 412 N.W.2d 56 (Neb. 1987).

67 340 N.W.2d 369, 375 (Neb. 1983) ("In the proper application of a risk versus utility analysis to a negligent design case, one of the factors which must be weighed is the feasibility of eliminating the risk and the existence of practicable alternative designs.").

The "user-contemplation" test is the same as that of consumer expectations. Both arise from the language of section 402A: "The article sold must be dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it . . . ." RESTATEMENT (SECOND) OF TORTS § 402A cmt. i (1965).

68 412 N.W.2d at 82.

braska Evidence Rule 407,[69] which makes evidence of post-accident matters inadmissible.

In *Rahmig*, the plaintiff employee brought an action against the manufacturer of a guillotine metal scrap shear for injuries he sustained while cleaning the unit.[70] The injury occurred when the plaintiff climbed into a scrap metal discharge chute in order to clean it by "kicking the iron out" with his boot.[71] Unexpectedly, an upper blade descended and amputated three of the plaintiff's fingers.[72]

At the pre-trial hearing, the plaintiff, to show that there was some practicable way in which the guillotine could have been made safer, offered evidence of subsequent remedial measures.[73] The trial court admitted the evidence over the defendant's objection.[74] After the court found in favor of the plaintiff, the defendant appealed contending, *inter alia*, that the evidence was inadmissible under Nebraska Evidence Rule 407.[75]

On appeal, the Nebraska Supreme Court rejected the defendant's Rule 407 argument, noting that "the court in *Nerud* did not immediately and directly confront the evidential problem involving subsequent remedial measures."[76] The court ruled that the trial court's admission of subsequent remedial measures was not erroneous because *Nerud*'s requirement that a feasible alternative be proved necessitates the use of such evidence.[77] Although it could have affirmed on this ground, the court went on to overrule the alternative design requirement of *Nerud*.[78]

Other concerns led the *Rahmig* court to abandon the feasible alternative desigu approach. According to the court, such a requirement restores "the exact burden to be avoided by the doctrine of strict liability in tort for a product's desigu defect."[79] In light of Nebraska's "state of the art defense," the plaintiff would be in the anomalous position of presenting evidence pertaining to a defense before the defendant could make such a defense.[80] That is, the plaintiff would have

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69 "When, after an event, measures are taken which, if taken previously, would have made the event less likely to occur, evidence of the subsequent measures is not admissible to prove negligence or culpable conduct in connection with the event." NEB. REV. STAT. § 27-407 (1989).

70 *Rahmig*, 412 N.W.2d at 60.

71 *Id.* at 62.

72 *Id.*

73 *Id.* at 63.

74 *Id.*

75 *Id.* at 67.

76 *Id.* at 73.

77 *Id.*

78 *Id.* at 81.

79 *Id.*

80 *Id.*

to present evidence of the "state of the art"—the state of technology with regard to the product at the time of manufacture—to avoid nonsuit, and this very evidence would satisfy the burden of production for a statutory defense.[81] The *Rahmig* court's adoption of the consumer expectations test still stands in Nebraska. A more recent case, *Adams v. American Cyanamid*,[82] applied the consumer expectations test in a suit alleging defective design.

B. The *Barker* Alternative Tests

1. *California*

The leading California case on defective design is *Barker v. Lull Engineering*.[83] In this case, the Supreme Court of California adopted the following alternative approaches to defective design:

> First, a product may be found defective in design if the plaintiff establishes that the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner. Second, a product may alternatively be found defective in design if the plaintiff demonstrates that the product's design proximately caused his injury and the defendant fails to establish, in light of the relevant factors, that, on balance, the benefits of the challenged design outweigh the risk of danger inherent in such design.[84]

The court rejected the trial court's instruction "that strict liability for a defect in design of a product is based on a finding that the product was unreasonably dangerous for its intended use."[85]

The *Barker* standard shifts the burden of proof regarding risk-utility to the defendant. By contrast, the Tentative Draft requires the plaintiff to establish that the product that caused the harm was defective.[86] Justice Tobriner explained that the *Barker* allocation of burden relieves "an injured plaintiff of many of the onerous evidentiary burdens inherent in a negligence cause of action."[87] He argned that because most of the evidence relevant to determining the reasonableness of a product's design under the risk-utility test involves "technical matters peculiarly within the knowledge of the manufac-

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81 *Id.*

82 498 N.W.2d 577 (Neb. Ct. App. 1992) (involving damages to a crop of beans after a herbicide manufactured by the defendant was applied to the plaintiff's fields).

83 573 P.2d 443 (Cal. 1978).

84 *Id.* at 455-56. The *Barker* court did not distinguish its risk-utility standard from *O'Brien*-type risk utility. *See supra* note 10.

85 *Id.* at 446.

86 RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2 cmt. c.

87 *Barker*, 573 P.2d at 455.

turer, . . . the burden should appropriately shift to the defendant to prove . . . that the product is not defective."[88]

The other difference between the *Barker* test and the new Restatement is that one of *Barker*'s alternative tests is a consumer expectations test. The California Supreme Court elaborated on the consumer expectations standard in *Campbell v. General Motors Corp.*[89] The court explained:

> [Though the] quantum of proof necessary to establish a prima facie case of design defect under the first prong of *Barker* cannot be reduced to an easy formula . . . if the product is one within the common experience of ordinary consumers, it is generally sufficient if the plaintiff provides evidence concerning (1) his or her use of the product; (2) the circumstances surrounding the injury; and (3) the objective features of the product which are relevant to an evaluation of its safety.[90]

This standard does not impose stringent requirements on a plaintiff attempting to establish a prima facie case of failure to meet consumer expectations standards.

In the year following *Campbell*, the California appellate courts interpreted *Campbell* and *Barker* to permit application of the consumer expectations test to virtually all products, even to those beyond the experience of ordinary laypersons.[91] The *Barker* test is alive and well in California and has been applied in recent cases.[92]

2. *Alaska*

The Supreme Court of Alaska adopted the *Barker* alternative tests in *Caterpillar Tractor Co. v. Beck.*[93] In Alaska, liability attaches if the product (1) fails the consumer expectations or (2) fails the risk-utility test.[94] Once the plaintiff proves that the design caused the injury, the burden of proving that the product met risk-utility norms shifts to the defendant.[95] The Supreme Court of Alaska decided "that the *Barker* two-prong test provides the most comprehensive guidelines for in-

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88 *Id.*

89 649 P.2d 224 (Cal. 1982).

90 *Id.* at 233.

91 Donald T. Ramsey, *Consumer Expectation Test For Design Defect In California*, 24 TORT & INS. L.J. 650 (1984). *See, e.g.*, Lunghi v. Clark Equipment Co., 200 Cal. Rptr. 387 (Ct. App. 1989); Rosburg v. Minnesota Mining & Mfg. Co., 226 Cal. Rptr. 299 (Ct. App. 1986); West v. Johnson & Johnson Products, Inc., 220 Cal. Rptr. 437 (Ct. App. 1985); Akers v. Kelley Co., 219 Cal. Rptr. 513 (Ct. App. 1985).

92 *See, e.g.*, Neal v. Montgomery Elevator Co., 9 Cal. Rptr. 2d 497 (Ct. App. 1992); Dierks v. Mitsubishi Motors Corp., 256 Cal. Rptr. 230 (Ct. App. 1989); Fortman v. Hemco, Inc., 259 Cal. Rptr. 311 (Ct. App. 1989).

93 593 P.2d 871 (Alaska 1979).

94 *Id.* at 884-85.

95 *Id.* at 885.

structing juries, without compromising any of the goals of strict liability."[96]

The alternative approaches proved favorable to the plaintiff in *Lamer v. McKee*.[97] In that case, the Supreme Court of Alaska reversed a judgment on a jury verdict for the defendant on the grounds that there was insufficient evidence to support the jury's finding that the product met consumer expectations.[98] Alaskan courts have demonstrated their continuing support of the *Barker* test in recent cases involving design defects.[99]

C. The Pennsylvania Two-Step

The Pennsylvania Supreme Court has created a unique and widely criticized test for defective design. The leading case, *Azzarello v. Black Bros., Inc.*,[100] holds that "a manufacturer . . . is effectively the gnarantor of his product's safety."[101]

In *Azzarello*, after a jury verdict for the defendant, the plaintiff moved for a new trial, asserting that the "trial judge incorrectly instructed the jury that the appellee's burden of proof under Section 402A strict liability required a showing that the machine was 'unreasonably dangerous.' "[102] The lower appellate court granted the motion[103] and Supreme Court of Pennsylvania ultimately affirmed.[104]

The Pennsylvania Supreme Court agreed with the lower court that "the use of the term 'unreasonably dangerous' in the charge was misleading."[105] Under *Azzarello*, a jury instruction must express the following standard: "[T]he jury may find a defect where the product left the supplier's control lacking any element necessary to make it safe for its intended use or possessing any feature that renders it unsafe for the intended use."[106]

The threshold decision of whether a product was "unreasonably dangerous," however, is for the judge, not the jury.[107] First, the court is to apply a cost-benefit (risk-utility) analysis to the product design. The outcome of the court's balance determines whether the case goes to the jury. If it does, the jury applies the above-quoted test.

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96 *Id.* at 884.
97 721 P.2d 611 (Alaska 1986).
98 *Id.*
99 *See, e.g.*, Colt Indus. Operating Corp. Frank W. Murphy Mfg., Inc., 822 P.2d 925 (Alaska 1991); Keogh v. Grasle, 816 P.2d 1343 (Alaska 1991).
100 391 A.2d 1020 (Pa. 1978).
101 *Id.* at 1026 (quoting Salvador v. Atlantic Boiler Co., 319 A.2d 903, 907 (Pa. 1974)).
102 *Id.* at 1022.
103 *Id.* at 1023.
104 *Id.* at 1027.
105 *Id.*
106 *Id.*
107 *Id.* at 1026.

In *Lewis v. Coffing Hoist Division, Duff-Norton Co.*[108] the Supreme Court of Pennsylvania excluded "evidence of industry standards relating to the design" of the product[109] offered by the defense to show that its design conformed to those standards and therefore was not defective. The Supreme Court concluded that evidence of industry standards and practice goes to the reasonableness of the defendant's conduct in making its design choice, thereby improperly injecting concepts of negligence law into a products liability inquiry.[110]

The more recent case *Dauphin Deposit Bank & Trust Co. v. Toyota Motor Corp.*[111] expressly rejects the risk-utility approach to defective design and embraces *Azzarello* and *Lewis* as valid law.

IV
ANALYSIS & PROPOSAL

A. The New Restatement: Concerns Arising from The Elimination of Strict Liability for Defective Design

Although the new Restatement does not account for all the differences among states, it does reflect the majority approach to defective product design. However, accordance with the majority rnle does not lay to rest all possible concerns about the new Restatement. One major concern is that the Tentative Draft imposes what is functionally a negligence standard on defective design. This section of the Note treats the concerns arising from the adoption of this standard, concluding that the risk-utility approach conforms with majority practice, does not undermine the policies that justify strict liability in the manufacturing defect context, and, moreover, is the best alternative to truly "strict" liability in the design context.

1. *Does the New Restatement Undermine the Original Policies Behind Strict Liability?*

Strict liability for defective products arose from a concern that injured plaintiffs should not have the undue burden of proving fault on the part of the manufacturer.[112] The justification is that a manufacturer's conduct is more remote and the proof of that conduct is more inaccessible than the conduct of a tortfeasor in a normal negli-

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108 528 A.2d 590 (Pa. 1987). For criticism of *Lewis*, see Joel I. Fishbein, *Industry Custom Evidence: Its Relevance In Design Defect Products Liability Cases*—Lewis v. Coffing Hoist Division, Duff-Norton Co., 61 TEMP. L. REV. 627 (1988).

109 *Lewis*, 528 A.2d at 594.

110 *Id.*

111 596 A.2d 845 (Pa. Super. Ct. 1991) (involving an action brought by one injured in a motor vehicle accident against the manufacturer of an alcoholic beverage).

112 *See* William J. Powers, *The Persistence of Fault in Products Liability*, 61 TEX. L. REV. 777, 811 (1983).

gence case.[113] Indeed, a risk-utility approach runs contrary to this policy, putting the burden back on the plaintiff to prove a feasible alternative design. But "[i]mproved discovery techniques and a more sophisticated plaintiff's bar have . . . reduced some of the difficulties."[114] Also, the plaintiff bears the burden of proving fault only when he or she alleges defective design and thereby threatens an entire line of products. Liability for manufacturing defects would continue to be "strict" in the traditional sense and would require no showing of fault.[115]

It is commonly asserted that strict liability for products will encourage manufacturers to make safer products.[116] According to Professor Powers, "Although a direct evaluation of a manufacturer's conduct under negligence principles theoretically provides the proper incentives, negligence law provides insufficient incentives in practice if it is underenforced due to problems of proof."[117] Professor Powers argues that *Barker*'s shift of the burden cures the plaintiff's handicap and encourages manufacturers to invest in care.[118] Yet, by retaining fault as a basis of liability (through its risk-utility prong), it offers some standard against which a product's design can be measured.[119]

Another policy behind strict liability is that if a manufacturer generates a consumer's expectations about a product, the costs of the injuries caused by the disappointment of those expectations should be borne by the mannfacturer instead of the consumer.[120] This accords with the consumer expectations test, in which the essential basis for liability is the disappointment of consumer expectations, even if the product could not be made safer at an acceptable cost. The risk-utility test, on the other hand, takes such manufacturer-created consumer expectations into account, but only as one factor among several.[121]

2. *Is the New Restatement Simply a Negligence Standard?*

It is unlikely that courts accustomed to applying the "strict" label will submit easily to an openly fault-based standard, though the

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113 *Id.*

114 *Id.*

115 RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2 cmt. b.

116 *See* Powers, *supra* note 112, at 811.

117 *Id.* at 812.

118 *Id.* at 811.

119 There are problems with this shifting of the burden, however, and they are discussed *infra* part IV.C.

120 RESTATEMENT (SECOND) OF TORTS § 402A cmt. c (1965).

121 Wade's seven factors account for the consumer's knowledge and expectations as to the product. Wade, *supra* note 33, at 837-38. For text of the factors, see *supra* text accompanying note 55.

change seems more semantic than real.[122] Indeed, many courts refer to fault-based products liability standards as being "strict."[123] The new Restatement presents what is essentially a negligence standard.

The risk-utility approach that has evolved from section 402A is grounded in negligence principles. Indeed, some courts and commentators suggest that there is no distinction between negligence and risk-utility in design defect cases.[124] The Supreme Court of Michigan has referred to the risk-utility test as "merely a detailed version of Judge Learned Hand's negligence calculus."[125] The factors a court should consider under the Restatement's balancing test for negligence[126] are indeed similar to the factors used in design defect analysis.[127] Dean Wade pointed out in 1965 that the incorporation of risk-utility into the defective design test transforms strict liability into a test of negligence, as negligence itself is defined in terms of reasonableness.[128]

Recognizing that a risk-utility standard for defective design is similar to a negligence analysis, some courts rationalize that risk-utility is

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122 Many courts speak of risk utility as strict liability. RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 1 cmt. a. *See* Powers, *supra* note 112, at 784-94 (detailing how "the risk-utility test has most seriously obscured the theoretical distinction between defectiveness and negligence and, consequently, has hampered the effort to purge strict products liability of fault").

123 RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 1 cmt. a.

124 *See, e.g.*, Prentis v. Yale Mfg., 365 N.W.2d 176, 185-86 (Mich. 1984); Birnbaum, *supra* note 33, at 649; Michael Hoenig, *Product Designs and Strict Tort Liability*, 8 SW. L. REV. 109, 134 (1976).

125 *Prentis*, 365 N.W.2d at 184.

126 To determine utility:

> (a) the social value which the law attaches to the interest which is to be advanced or protected by the conduct;
> (b) the extent of the chance that this interest will be advanced or protected by the particular course of conduct; [and]
> (c) the extent of the chance that such interest can be adequately advanced or protected by another and less dangerous course of conduct.

RESTATEMENT (SECOND) OF TORTS § 292 (1965).

To determine risk:

> (a) the social value which the law attaches to the interests which are imperiled;
> (b) the extent of the chance that the actor's conduct will cause an invasion of any interest of the other or one of a class of which the other is a member;
> (c) the extent of the harm likely to be caused to the interests imperiled; [and]
> (d) the number of persons whose interests are likely to be invaded if the risk takes effect in harm.

Id. § 293.

127 *See infra* note 131 and accompanying text.

128 Moylan, *supra* note 33, at 456 (citing John W. Wade, *Strict Tort Liability of Manufacturers*, 19 SW. L.J. 5, 15 (1965)). "The whole theory of negligence presupposes some uniform standard of behavior. . . . [N]egligence is a failure to do what the reasonable person would do 'under the same or similar circumstances.' " PROSSER & KEETON, *supra* note 40, § 32, at 173, 175 (quoting RESTATEMENT (SECOND) OF TORTS § 283 (1965)).

strict liability by insisting that the plaintiff impugns the product rather than the conduct of the manufacturer.[129] These courts contend that by focusing on the product the fact finder will disregard the manufacturer's conduct and instead weigh the risks against the utility of the product itself.[130] Many commentators argue that such semantic slights of hand do not change the substance of the standard employed.[131] Indeed, it seems that because the product is the "ultimate manifestation" of conscious design decisions, to focus on the quality of the product is to focus necessarily on the quality of the manufacturer's design choices.[132] As Professor Powers contends, "[p]roduct cost . . . is merely a reflection of the product's manufacturing process; therefore, a court's consideration of product cost represents an evaluation of the manufacturer's conduct."[133] The siguificance of the product-manufacturer distinction becomes clear when the "hindsight" test[134] is applied to manufacturer design choices.

3. *The Hindsight Test*

In order to clarify the distinction between strict liability and negligence, several jurisdictions have excised risk-utility analysis from their strict liability standards.[135] In contrast, other jurisdictions have found that a reasonableness, or risk-utility, standard differs from negligence in that the former imputes knowledge of product risks from time of trial back to the time of distribution—the "hindsight" test.[136] Knowledge of risk is distinct from knowledge of risk-avoidance measures.[137] In addition, the risks must flow from foreseeable uses of the product. Therefore, in applying the hindsight test, courts cannot hold manu-

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129 *See* Moylan, *supra* note 33, at 464. One court stated:

> [T]here is a fundamental difference in the application of a risk/benefit analysis in a negligent design case and the same analysis in a strict liability design case. The difference is significant, for it shifts the central focus of the inquiry from the *conduct* of the manufacturer (negligence) to the *quality of the product* (strict liability). Negligence theory concerns itself with determining whether the conduct of the defendant was reasonable in view of the foreseeable risk of injury; strict liability is concerned with whether the product itself was unreasonably dangerous.

Dart v. Wiebe Mfg., Inc., 709 P.2d 876, 880 (Ariz. 1985) (en banc).

130 *See* Moylan, *supra* note 33, at 464.

131 *See, e.g., id.*; Powers, *supra* note 112, at 791-94.

132 *See* Moylan, *supra* note 33, at 465.

133 Powers, *supra* note 112, at 792.

134 *See infra* part IV.A.3.

135 *See, e.g.*, Caterpillar Tractor Co. v. Beck, 593 P.2d 871, 882-84 (Alaska 1979); Barker v. Lull Eng'g Co., 573 P.2d 443, 451 (Cal. 1978); Cronin v. J.B.E. Olson Corp., 501 P.2d 1153, 1161-62 (Cal. 1972); Azzarello v. Black Bros. Co., 391 A.2d 1020, 1024-27 (Pa. 1978).

136 *See, e.g.*, Dart v. Wiebe Mfg., Inc., 709 P.2d 876 (Ariz. 1985); Bilotta v. Kelley Co., 346 N.W.2d 616, 622 (Minn. 1984); Phillips v. Kimwood Mach. Co., 525 P.2d 1033 (Or. 1974).

137 That is, one may be aware of a product's risks but be unaware of the means by which to avoid those risks.

facturers liable for injuries resulting from unforeseeable uses of the product.

The hindsight test, a version of the "reasonably prudent manufacturer test,"[138] imputes knowledge of the product's dangers (foreseeable or not) as a matter of law from time of trial back to time of distribution, thereby relieving the plaintiff of the burden of proving the manufacturer's knowledge of a dangerous condition.[139] The plaintiff has to prove neither that the manufacturer was negligent in failing to discover the danger, nor that the danger was discoverable.[140] The hindsight test is closely related to some courts' position that risk-utility departs from negligence by evaluating the product rather than the manufacturer's conduct, thereby avoiding an inquiry as to the defendant's fault.[141]

The new Restatement imposes a foreseeability limitation as to risk that should bar the use of a hindsight test.[142] The adoption of a hindsight test, however, may be justified by the reduction of unnecessary litigation over whether a product design's risks were foreseeable to its manufacturer.[143] Also, courts and commentators have linked the hindsight test to the strict products liability policy goals of encouraging product safety,[144] increasing cost spreading,[145] and promoting fairness.[146]

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138 *See* Moylan, *supra* note 33, at 466. The other version of the "reasonably prudent manufacturer" test is associated with Dean Wade, *see supra* note 33 and accompanying text, and it imputes knowledge of risk at time of distribution to the manufacturer. Under the reasonably prudent manufacturer test, the plaintiff must show that a reasonable manufacturer knowing of the product's danger would have changed the product before marketing it. *See* Wertheimer, *supra* note 33, at 1193-94 (citing Sheila L. Birmbaum, *Unmasking the Test for Design-Defect: From Negligence [to Warranty] to Strict Liability to Negligence*, 33 VAND. L. REV. 593, 618 n.4 (1980)).

139 Wertheimer, *supra* note 33, at 1193-94.

140 *Id.* at 1193.

141 *See, e.g., Caterpillar Tractor*, 593 P.2d at 889; Phipps v. General Motors Corp., 363 A.2d 955, 958-59 (Md. 1976); *Phillips*, 525 P.2d at 1036.

142 RESTATEMENT (THIRD) OF TORTS, *supra* note 7, § 2 cmt. i.

143 John W. Wade, *On the Effect in Product Liability of Knowledge Unavailable Prior to Marketing*, 58 N.Y.U. L. REV. 734, 754 (1983) ("It obviously is simpler to offer evidence of and to reach a decision on the state of scientific knowledge at the present time than at some particular time in the past.").

144 *See id.* at 754-55.

> It has been argued that the hindsight standard is more likely to produce a fully safe product. Awareness that later increases in knowledge will be taken into consideration in assessing the safety of the product for liability purposes supposedly will make the manufacturer more cautious in putting the product on the market . . . .

Id.

145 *See id.* at 755 ("[L]osses arising from unknown and apparently unavoidable hazards should be spread among all users of the product, just as are losses from expected injuries or negligent conduct.").

146 *See id.* at 756 ("Some courts and commentators will look at the innocent victims of a product defect and decide that . . . the latter 'should bear the unforeseen costs of the

4. *Problems Specific to the Risk-Utility Approach*

Courts and commentators point to three major reasons for rejecting the risk-utility test for defective design.[147] The first is the difficulty of quantifying and comparing risks and benefits.[148] The second is the difficulty of identifying the appropriate scope for comparing risks and benefits.[149] As Professor Powers points out, "[i]t is tempting to compare the overall risks and benefits of a product, but the risk-utility test is appropriately applied only to the specific feature that allegedly makes the product defective."[150] Third, courts do not rely solely on the risk-utility approach to analyze defectiveness.[151] Defective design cases are often affected by values other than efficiency.[152]

Henderson and Twerski justify their adoption of the risk-utility test in part by recognizing that many courts temper their consumer expectations tests with risk-utility balancing.[153] Support for the consumer expectations approach arises from a perception that the economic (risk-utility) test for liability may give inadequate attention to consumer attitudes toward product-related risk.[154] Henderson and Twerski, however, reject the straightforward consumer expectations approach because it is so unstructured that it provides almost no guidance to the jury and leaves manufacturers uncertain of the law's demands.[155] However, there are other tests that Henderson and Twerski could have chosen. The following sections examine these.

B. Straightforward Consumer Expectations: Too Unstructured

The consumer expectations test has been criticized as highly subjective, confusing, unpredictable, and unfair to manufacturers and de-

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product.' " (quoting Beshada v. Johns-Manville Prods. Corp., 447 A.2d 539, 549 (N.J. 1982))).

Wade, however, argued that the hindsight test was not worth retaining for defective design. Wade, *supra* note 33, at 754-55.

147 "It is important to keep in mind that these problems are common to both negligence and defectiveness and therefore do not distinguish the two systems of liability." Powers, *supra* note 112, at 784-85.

148 *Id.* at 785 (noting that risks and benefits may be difficult to measure, since intangibles such as pain and pleasure are not readily quantifiable).

149 *Id.* at 786.

150 *Id.* ("For example, an automobile without seatbelts might be defective even though the aggregate benefits of such an automobile outweigh its overall risks.").

151 *Id.* at 787 (noting that Learned Hand's formula for negligence has been criticized as an oversimplification).

152 *Id.*

153 Henderson & Twerski, *supra* note 8, at 1533; Wertheimer, *supra* note 33, at 1200. *See, e.g.*, Aller v. Rogers Mach. Mfg. Co., 268 N.W.2d 830 (Iowa 1978); Baughn v. Honda Motor Co., 727 P.2d 655 (Wash. 1986); Seattle-First National Bank v. Tabert, 542 P.2d 774 (Wash. 1975).

154 HENDERSON & TWERSKI, *supra* note 36, at 504.

155 *See* Henderson & Twerski, *supra* note 8, at 1534.

fendants.[156] The Model Uniform Product Liability Act rejected the consumer expectations test altogether because, as the drafters stated, "[t]he consumer expectations test takes subjectivity to its most extreme end. Each trier of fact is likely to have a different understanding of abstract consumer expectations."[157] The subjectivity of the approach arises from its lack of structure. This section outlines how this can result in drastic manipulation of the consumer expectations test.

1. *Warranty or Negligence?*

The consumer expectations test has been described as emerging from the warranty heritage of products liability.[158] Indeed, protecting justified expectations is a fundamental policy of contract law. "Courts can adequately resolve cases involving specific consumer expectations . . . under an express warranty theory, such as § 402B of the *Restatement (Second) of Torts* or § 313 of the Uniform Commercial Code."[159] In this sense, the only difference between consumer expectations and warranty is the latter's requirement of privity between the plaintiff and the defendant.

But the consumer expectations test can be formulated in such a way as to make it functionally equivalent to a negligence test; it can be argued that an ordinary consumer is not likely to expect more than the exercise of reasonable care by the manufacturer.[160] So, in applying a consumer expectations test, a court could decide that only reasonable consumer expectations are protected. This transforms the consumer expectations test into a risk-utility test. Some courts have taken this approach.[161] The consumer expectations test is so open-textured that it is susceptible to a variety of formulations, ranging from contract to tort. A consistent approach to defective desigu can hardly be hoped for under this approach as different jurisdictions can and do apply it differently.[162]

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156 *See* Ramsey, *supra* note 91, at 668.

157 Uniform Product Liability Act, 44 Fed. Reg. 62,714, 62,724 § 104(B) and analysis (1979), *reprinted in* U.S. DEP'T OF COMMERCE, UNIFORM PRODUCT LIABILITY ACT: A MODEL FOR THE STATES 18 (1979).

158 *See* Birnbaum, *supra* note 33, at 614.

159 Powers, *supra* note 112, at 795-96.

160 *See* Moylan, *supra* note 33, at 459 (citing Roger C. Henderson, *Strict Products Liability and Design Defects in Arizona*, 26 ARIZ. L. REV. 261, 265 (1984); Gary T. Schwartz, *Foreword: Understanding Products Liability*, 67 CAL. L. REV. 435, 479 (1979)).

161 *See* Henderson & Twerski, *supra* note 8, at 1520, 1533; *see supra* text accompanying note 37.

162 Schwartz, *supra* note 160, at 479.

2. *Sword or Shield?*

The open-textured nature of the consumer expectations test renders it susceptible to highly conflicting formulations. A court could apply the consumer expectations test as a "shield" that protects defendants or as a "sword" that aids plaintiffs.

The consumer expectations test can be applied in a pro-plaintiff fashion to a consumer who is unable to form clear and reasonable expectations regarding danger in certain "highly technical, newly developed, or non-consumer oriented products, because the consumer would simply have no idea how safe the product could be made."[163] In this scenario, certainly, a consumer cannot be penalized for not having unavailable knowledge about the product. The fear, however, is that if the test is formulated to be very subjective, the careless user, who has unreasonably high expectations for safety, may be subsidized by those careful users whose expectations are reasonable.

The consumer expectations test also can be applied in a pro-defendant fashion to a product that fails the risk-utility test. The product would pass the consumer expectations test merely because the consumer is unable to form reasonable expectations as to the product.[164] The consumer expectations test in this form replicates the "patent danger" rule,[165] which holds that the manufacturer cannot be held responsible for dangers that are obvious. The consumer expectations test is so unstructured that it can be formulated to favor the plaintiff or the defendant. Consistency is impossible under such an approach.

C. The *Barker* Burden Shift

The trouble with the *Barker* test does not arise from its dual character but from its placement of the burden of proof as to risk-utility on

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163 Moylan, *supra* note 33, at 460. Professor Powers wrote:

> The vague expectations of consumers probably oscillate between never expecting a product to injure them (on the theory that "it will never happen to me") and actually expecting some products to be "lemons." The former proves too much, since it would render defective every product that causes injury. The latter proves too little, since it would exonerate products that are clearly defective under current law.

Powers, *supra* note 112, at 796-97.

164 "For example, a punch press without guards to protect the hands of the operator would not be defective under this test with respect to a hand injury incurred when the operator inserted his or her hand between the press and the plate, because a reasonable consumer would expect injury to result under such circumstances." Wertheimer, *supra* note 33, at 1198. *See, e.g.*, Hartman v. Miller Hydro Co., 499 F.2d 191, 192 (10th Cir. 1974) (applying consumer expectation test to exposed drive shaft in bottle washing machine and ruling that plaintiff "must be accredited with sufficient intelligence to realize that an exposed revolving shaft is dangerous . . . . Thus, it cannot be said that a danger existed which was beyond contemplation of an ordinary user. The danger was obvious.").

165 M. STUART MADDEN, PRODUCTS LIABILITY § 8.5 (2d ed. 1988).

the defendant.[166] Placing the burden of proof as to risk-utility on the defendant thwarts efficiency, promotes inconsistency, and is too pro-plaintiff to be a sensible approach to defective design. All a plaintiff need do to get to the jury under the test is prove proximate cause.[167] This approach would allow meritless claims to reach the jury. As Professor Henderson argues, "precious judicial resources are wasted when juries are relied on to decide cases that should, as a matter of law, be recognized as without merit."[168] It is in this respect that the *Barker* burden shift is inefficient.

By shifting the burden to the defendant as to risk-utility, the *Barker* test makes directed verdicts for defendants less likely.[169] Allowing so many cases to go to the jury prevents the courts from deciding cases and developing a firm line of decisions against which to measure new cases.[170] The ability of courts to direct verdicts for defendants in clear cases ensures that some consistency will be attained in a court's line of decisionmaking.[171] In this respect, the *Barker* burden shift frustrates consistency.

Finally, the *Barker* burden shift is very pro-plaintiff. Professor Henderson contends, "the difficulties of proving a case come not in positing potentially helpful design alternatives, but in establishing their cost effectiveness."[172] The new Restatement affords adequate protection for a plaintiff: To recover, the plaintiff must posit a technically feasible alternative design. The defendant's burden under *Barker*, to prove that the benefits of the product's design outweighed its inherent dangers, is a difficult task, especially with *Barker*'s application of the hindsight test.

D. Problems with the Pennsylvania Two-Step

1. Azzarello's *Division of Functions*

According to Professor Henderson, "the inherent flaw in the [*Azzarello*] court's notion that the *Restatement* formulation can somehow be useful for the gnidance of 'the bench and bar' but not for juries of laypersons clearly surfaces in the confusing treatment afforded the division-of-function question."[173] If a plaintiff is not required to include

166 Barker v. Lull Eng'g Co., 573 P.2d 443, 446, 455, 458 (Cal. 1978). *See also supra* part III.B.

167 James A. Henderson, Jr., *Renewed Judicial Controversy Over Defective Product Design: Toward the Preservation of an Emerging Consensus*, 63 MINN. L. REV. 773, 787 (1979).

168 *Id.* at 786.

169 *Barker*, 573 P.2d at 443, 446, 455, 458. *See also supra* part III.B.

170 Henderson, *supra* note 167, at 785.

171 *Id.* at 786.

172 *Id.*

173 James A. Henderson, Jr., *Products Liability: Controversial New Decision on Design Defects*, 2 CORP. L. REV. 246, 247 (1979).

averments of unreasonableness in the complaint, a trial court cannot usefully and fairly employ those concepts in testing the sufficiency of the complaint.[174]

Professor Twerski argues that the division of function keeps juries from considering risk-utility cases in which the evidence is closely balanced.[175] According to Twerski, "[t]hat the role of the jury is to be so sharply limited on the issue of reasonableness is a matter of concern since the jury has traditionally played an important role in the expansion of the law of products liability."[176] Other commentators have expressed confidence in the ability of the jury to arbitrate design defect issues fairly.[177] Leaving the determination of a product design's reasonableness to the court is problematic because the formulation given to the jury should be relativistic and should include a determination based upon notions of reasonableness.

In addition to confusing the division of functions and eliminating the jury's traditional role, *Azzarello* leaves the judge with an undefined amount of power with regard to case outcomes. Considering that evidence of industry standards is not afforded to the jury,[178] this judicial power in Pennsylvania is great. Furthermore, the question of what, as a minimum, a plaintiff must aver is unanswered. Affording the judge this much discretion is highly problematic.

2. Azzarello's *Standard for Defective Design and the* Lewis *Rule*

Under *Azzarello,* the manufacturer is the guarantor of the product's safety, and a product is defective if it lacks any element necessary to make it safe or possesses any feature that renders it unsafe for its intended use.[179] To insist, as the Pennsylvania Supreme Court seems to have done, that a product desigu include every precaution, however costly, is an absurd and unworkable test.[180] One commentator has surmised that such a charge may mislead the jury into speculation about impractical, costly alternative designs, leaving manufacturers vulnerable to unlimited liability.[181] Finally, the limitation of liability

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174 *Id.*

175 Aaron D. Twerski, *From Risk-Utility to Consumer Expectations: Enhancing the Role of Judicial Screening in Product Liability Litigation,* 11 HOFSTRA L. REV. 861, 926 (1983).

176 *Id.*

177 *See* Birnbaum, *supra* note 33, at 638.

178 *See* discussion of *Lewis* rule *infra* part III.

179 Azzarello v. Black Bros. Co., 391 A.2d 1020, 1026 (Pa. 1978).

180 *See* Henderson, *supra* note 173, at 248.

181 Robert F. Harchut, Recent Development, 24 VILL. L. REV. 1035, 1050 n.103 (1978-79).

> It is suggested that an imaginative plaintiff's attorney, with the benefit of hindsight, will nearly always be able to envisage *something* the manufacturer might have done to make the product safe for its intended use. For example, under the jury instruction espoused in *Azzarello,* it is conceivable that the manufacturer of a knife could be held liable for not furnishing it with

to intended uses ignores the possibility of foreseeable misuse cases.[182] This standard for defective design can be very tough on manufacturers, even with the cost-benefit weighing duty given to the court. Commentators nationwide have criticized the approach as unworkable.[183]

That *Lewis* keeps jurors from considering evidence of industry standards relevant to the product's design emphasizes Pennsylvania's minimization of the jury's role and its unworkably high standard for product safety.[184] In the words of the former Pennsylvania Chief Justice Jones, "[t]he seller must provide with the product every element necessary to make it safe for use."[185]

There already has been criticism of Pennsylvania's approach toward defective design within the high court of that commonwealth.[186] Dissenting from the *Lewis* opinion, Judge Hutchinson emphatically stated:

> I am compelled, in the words of the popular song, to 'speak out against the madness.' The instant madness is a creeping consensus among us judges and lawyers that we are more capable of designing products than engineers are . . . [W]e must provide an impartial forum when properly designed products cause injuries.[187]

Noting the pro-plaintiff bias in the Pennsylvania courts, Hutchinson went on to state that "there is respectable legal opinion that liability for defective design cannot avoid the question of relative care, at least on the question of legal cause."[188]

Hutchinson's reference is to *Foley v. Clark Equipment Co.*,[189] a 1987 Pennsylvania Superior Court decision. The *Foley* court held that evidence of plaintiffs' and other individuals' negligence is admissible where it is relevant to establish causation, even though negligence

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> some type of automatic retractable guard. . . . Thus, the question of how liability will be avoided in such circumstances remains unanswered after *Azzarello.* In addition, it is submitted that an instruction which states that the product must be free from any condition that makes it unsafe for its intended use may tempt juries to the extreme conclusion that if the plaintiff was injured, *ipso facto,* the product must have been defective.

Id.

182 *See* Twerski, *supra* note 175, at 926.

183 *See, e.g.*, Birnbaum, *supra* note 33, at 636-39; Harchut, *supra* note 181; Henderson, *supra* note 173, at 248-49; Comment, *Returning the "Balance" to Design Defect Litigation in Pennsylvania: A Critique of* Azzarello v. Black Bros. Co., Inc., 89 DICK. L. REV. 149 (1984).

184 Lewis v. Coffing Hoist Div., Duff-Norton Co., 528 A.2d 590, 594 (Pa. 1987).

185 Berkebile v. Brantley Helicopter Corp., 337 A.2d 893, 901 (Pa. 1975).

186 *See Lewis*, 528 A.2d at 596 (Hutchinson, J., dissenting).

187 *Id. But see* Ellen Wertheimer, *Azzarello Agonistes: Bucking the Strict Products Liability Tide*, 66 TEMP. L. REV. 419, 420 (1993) ("*Azzarello* has . . . allowed Pennsylvania to retain strict products liability in its doctrinally pure form to a greater extent than many other jurisdictions.").

188 *Lewis*, 528 A.2d at 596.

189 523 A.2d 379, 393 (Pa. 1987).

principles generally are not to be injected into an action based upon a theory of strict liability.[190]

E. Proposal

1. *If It Ain't Broke, Why Fix It?*

Although section 402A has given rise to different standards for defective design in varying jurisdictions, it is not clear that the inconsistency is so problematic that a Restatement standard for defective design is really necessary. Commentators have voiced concerns that although the new Restatement may represent the best standard for defective design, it may confuse courts accustomed to different standards and stunt the development of their law.[191]

While Professors Henderson and Twerski concede that courts will undergo a phase of adaptation,[192] they predict that over time, courts will grow to understand the virtues of the approach, and in this way, the new Restatement will "advance the ball."[193] The new Restatement will thereby promote predictability in future product design law.[194] The co-reporters write:

> [D]octrinal developments in products liability have placed such a heavy gloss on the original text of and comments to section 402A as to render them anachronistic and at odds with their currently discerned objectives. By changing the relevant language to conform to current understandings—by restating the *Restatement*—we hope to clarify much of the confusion that has arisen over the years.[195]

The new Restatement reflects the majority's position as to defective design, and provides guidance to the minority of jurisdictions with standards other than the risk-utility test.

2. *Courts Should Adopt the New Restatement*

The benefits of the risk-utility approach, taken with its problems, sufficiently outweigh the benefits of competing standards, making the risk-utility approach the best test for defective design. The approach best serves fairness and efficiency, and adopting and clarifying the majority position best serves consistency.

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190 *Id.*

191 *See, e.g.*, James A. Henderson, Jr. & Aaron D. Twerski, *Will A New Restatement Help Settle Troubled Waters?*, 42 AM. U. L. REV. 1257, 1266-67 (1993) ("Although all may agree in the abstract that clarity is a desideratum, there may be considerable sympathy and nostalgia for the studied ambiguity of section 402A.").

192 *Id.*

193 *Id.*

194 *Id.*

195 Henderson & Twerksi, *supra* note 8, at 1513.

The main problems with the risk-utility approach arise not from unworkability but from a tension with the underlying strict liability rhetoric. The new Restatement openly adopts a fault-based standard for defective design, an area some courts have become accustomed to thinking of only in terms of "strict" products liability; these courts may be reluctant to take up the proposed standard. However, the new Restatement's approach clarifies the law of defective design, an area never really subject to strict liability, rightly confining notions of liability without fault to the area of manufacturing defects. Risk-utility simply provides the most workable standard for defective design, which explains why so may courts have adopted some version of it. As suggested by this Note, a court could soften the plaintiff's burden, under the risk-utility approach, by tempering it with the hindsight test. The problems with the risk-utility approach are minimal when compared to the unworkability of the *Barker* burden shift, the straightforward consumer expectations test, and Pennsylvania's *Azzarello* standard.

A majority of jurisdictions now impose a version of the risk-utility test. It allows the determination of the most efficient and fair allocation of risk.[196] While consumer expectations can be appropriately considered in a risk-utility analysis, a straightforward consumer expectations approach is too unstructured to provide guidance.

With the new Restatement, a state like Nebraska, where the *Rahmig* court stressed the *Restatement* rule as strict liability,[197] would be free of the strict liability rhetoric because the new Restatement no longer carries that label. An obstacle for Pennsylvania courts in shifting to the risk-utility approach has been the dichotomy between strict liability and negligence. This dichotomy was illustrated by the *Lewis* court's desire to avoid allowing negligence concepts for jury consideration.[198] Indeed, comment a to section 402A provides, "The rule is one of strict liability."[199] The co-reporters of the new Restatement state: "The provisions holding sellers liable for design . . . defects reflect the influence of tort law's traditional risk-utility balancing."[200] No longer do the words "strict liability" stand in Pennsylvania's, or any other state's, way. All the courts need to do is recognize the new standard as the most authoritative and up-to-date voice on the matter and terminate the allegiance to section 402A. It would not be the first time Pennsylvania's high court has abandoned its own common law for a Restatement provision.[201]

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196 *See supra* note 7 and accompanying text.

197 Rahmig v. Mosley Mach. Co., 412 N.W.2d 56, 81 (Neb. 1987).

198 Lewis v. Coffing Hoist Div., Duff-Norton Co., 528 A.2d 590, 594 (Pa. 1987).

199 RESTATEMENT (SECOND) OF TORTS § 402A cmt. a (1965).

200 *See* Henderson & Twerski, *supra* note 8, at 1515.

201 *See, e.g.*, HERBERT F. GOODRICH & PAUL A. WOLKIN, THE STORY OF THE AMERICAN LAW INSTITUTE 1923-1961, at 15 (1961). "To the extent that past cases are in conflict with

CONCLUSION

The new Restatement for defective product design is a restatement of the majority approach to defective design. It imposes a risk-utility test to determine whether a design is defective. In purported adherence to section 402A's standard of strict liability, some states have refrained from adopting such an approach, fearing that to do so would inappropriately invite consideration of negligence concepts. The laws of the five states discussed in Part III represent this sentiment and apply standards for defective design that are different from that of the new Restatement.

Upon considering the benefits (and dangers) of these competing standards for defective design, it is apparent that risk-utility, with the burden of proof on the plaintiff, is the most sensible approach. It is a structured standard against which to compare an allegedly defective design and does not run the risk of condemning an entire product line that could not reasonably be made safer. This Note does not take a position on whether the hindsight test should be adopted with the risk-utility test, but merely notes that it remains as a ground for compromise with the ardent adherent of strict liability.

The American judiciary's historic deference to the *Restatement* supports the adoption of the new Restatement. Henderson and Twerski have labored to erase "strict liability" from thinking on design defect, thereby eliminating a conceptual hurdle. In the interests of fairness, efficiency, and the ideal of uniformity aspired to by the American Law Institute, American courts should adopt the new Restatement.

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the view of section 339 of the Restatement of the Law of Torts, which we have adopted, they are no longer authority." *Id.* (quoting Bartleson v. Glen Alden Coal Co., 64 A.2d 846, 851 (Pa. 1949)). For recent published support of Henderson and Twerski's revision, see Peter N. Swisher, *Products Liability Tort Reform: Why Virginia Should Adopt the Henderson-Twerski Proposed Revision of Section 402A, Restatement (Second) of Torts*, 27 U. RICH. L. REV. 857 (1993).

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