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RESTATEMENT (THIRD) OF TORTS AND DESIGN DEFECTIVENESS IN AMERICAN PRODUCTS LIABILITY LAW

INTRODUCTION

In May 1995, the American Law Institute (A.L.I.) adopted Tentative Draft No. 2 of the *Restatement (Third) of Torts: Products Liability*. Tentative Draft No. 2 ("the Draft") represents the first of two chapters of the new Restatement, and it covers causes of action predicated on product defects existing at the time of sale or distribution.¹

Tentative Draft No. 2 was preceded by Tentative Draft No. 1, which the Reporters for the Restatement released on April 12, 1994, and which was scheduled for a vote at the A.L.I.'s annual meeting in May, 1994. Although the first Draft was generally well received by the A.L.I.'s members, controversy over the proposed standard for defective design liability derailed its adoption. In particular, practitioners and academics, predominantly members of the Plaintiffs' Bar, objected vigorously to the proposed standard, contending that it did not reflect the current state of the law.² A memorandum submitted to the A.L.I. asserted that "Tentative Draft No. 1 is itself demonstrably defective" in that it is supported by "weak, and often contradictory or irrelevant, authority . . ."³ Despite these allegations of error, Tentative Draft No. 2, as adopted by the A.L.I., includes the same design defect liability standard which was contested in Tentative Draft No. 1.

Over the past thirty years, Section 402A of the *Restatement (Second) of Torts* has defined American products liability law.⁴ Under Section 402A, a

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

² See Larry S. Stewart, *Plaintiffs Bar Questions Products Liability Restatement*, NAT'L L.J. (Aug. 1, 1994); *ALI Hesitates on Lawyer Liability, Products Liability Restatement Efforts*, 62 U.S.L.W. 2734 (May 31, 1994).

³ See Memorandum from Howard C. Klemme, Professor Emeritus, University of Colorado School of Law, to A.L.I. (May 31, 1994) 61 TENN. L. REV. 1173, 1175 (1994). See also Larry S. Stewart, *The ALI and Products Liability: 'Restatement' or 'Reform'?* TRIAL (Sept. 1994 at 28, 29) ("It appears that the reporters may be feeling too much of the gravitational pull of tort reform."); Ronald F. Banks & Margaret O'Connor, *Restating the Restatement (Second), Section 402 — Design Defect*, 72 OR. L. REV. 411 (1993) (arguing that the Restatement's proposed rule "reflects neither the evolution nor the true state of existing products liability law.").

⁴ RESTATEMENT (SECOND) OF TORTS § 402A (1965) provides:

Special Liability of Seller of Product for Physical Harm to User or Consumer:
(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

manufacturer or distributor is held strictly liable if a product is “unreasonably dangerous” and “defective.” This determination depends upon whether the product is in a “condition not contemplated by the ultimate consumer.”⁵ Although most states adopted this formulation either judicially⁶ or through legislative enactment,⁷ its relevance and application to modern situations has steadily declined.⁸ In particular, Section 402A’s failure to distinguish between claims involving manufacturing, design, and warning defects required courts to devise appropriate standards for all three types of defects. This dissonance played a key role in the A.L.I.’s decision to open its *Restatement (Third) of Torts* with a restatement of products liability law.⁹

thereby caused to the ultimate user or consumer, or to his property, if

(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.

(2) The rule stated in Subsection (1) applies although

(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.

Id.

⁵ *Id.* cmt. g.

⁶ See State Chart — Acceptance of Strict Liability, 1 PROD. LIAB. REP. (CCH) ¶ 4016 (Nov. 1988 & Apr. 1989). Thirty-seven states and the District of Columbia adopted the Restatement’s version of strict products liability. Seven states and Puerto Rico adopted other variations, and Delaware, Massachusetts, Michigan, North Carolina and Virginia have not yet recognized strict products liability. *Id.* See generally 2 AMERICAN LAW OF PRODUCTS LIABILITY § 16:9 (3d ed. 1987) (listing States that have adopted Restatement 2d of Torts § 402A); *Id.* § 16:13-17 (listing states adopting other strict liability approaches); and *Id.* § 16:18 (listing states rejecting strict products liability).

⁷ See ARK. CODE ANN. § 4-86-102 (Michie 1991); IND. CODE ANN. § 33-1-1.5-3 (Burns 1992); ME. REV. STAT. ANN. tit. 14, § 221 (West 1980); OR. REV. STAT. § 30.920 (1988); S.C. CODE ANN. § 15-73-10 (Law. Co-op. 1977).

⁸ See 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) (“[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.”) [hereinafter *A Proposed Revision*].

⁹ The decision to revise *Restatement (Second) of Torts* was announced on March 18, 1992. The decision was reached because § 402A “has proven so influential in the development of modern products liability law” and the existing version has become “increasingly irrelevant and unresponsive to contemporary needs.” See *ALI to Begin Work on Restatement (Third); Professors Propose Revisions to Section 402A*, PROD. LIAB. DAILY (BNA) (Mar. 18, 1992); and *Law Institute Attendees Plan 5-Year Project; Members Agree on Core of Proposed Treatise*, PROD. LIAB. DAILY (BNA) (May 12, 1992). See generally James A. Henderson, Jr. & Aaron D. Twerski, *Will a New Restatement Help Settle Troubled Waters: Reflections*, 42 AM. U. L. REV. 1257 (1993) (discussing issues in products liability law in need of clarification).

Traditionally, determining design fitness has presented the most “agitated and controversial” problems in products liability law.¹⁰ Unlike cases involving manufacturing flaws, where courts can evaluate the challenged product against the manufacturer’s own production standards as manifested by other units in the production line, cases of alleged design defect, where the product is in its intended condition, do not provide a built-in objective standard of comparison.¹¹ In design cases the courts themselves must provide an external standard or norm of defectiveness, which requires them to weigh various engineering, marketing, and financial factors.¹² In observing the courts’ struggle in analyzing such cases, one commentator noted that “[i]t may now be true that [design] defect, like obscenity in Justice Stewart’s definition, will be discovered by sense impression. Unfortunately ‘I know it when I see it’ will not suffice as a judicial standard for products liability.”¹³ For these reasons, some commentators have suggested that courts are inherently

¹⁰ *Prentis v. Yale Mfg. Co.*, 365 N.W.2d 176, 182 (Mich. 1984). See also Richard A. Epstein, *Product Liability: The Search for Middle Ground*, 56 N.C. L. REV. 643, 647-49 (1978) (describing the courts’ confusion in determining design defects).

¹¹ The court recognized this distinction in *Barker v. Lull Eng’g Co.*, 573 P.2d 443 (Cal. 1978). The court stated:

In general, a manufacturing or production defect is readily identifiable because a defective product is one that differs from the manufacturer’s intended result or from other ostensibly identical units of the same product line. . . . A design defect, by contrast, cannot be identified simply by comparing the injury-producing product with the manufacturer’s plans or with other units of the same product line, since by definition the plans and all such units will reflect the same design.

Id. At 454. See also *Prentis*, 365 N.W.2d at 182. Professor Birnbaum made the following observation on this difference:

Conscious design defect cases, however, provide no such simple test. Plaintiff is attacking the intended design itself, arguing that the design created unreasonable risks of harm. In attacking the product’s design, the plaintiff is not impugning the manufacturer’s product as much as the manufacturer’s choice of design. The use of the term “defective condition unreasonably dangerous,” therefore, creates serious analytic problems.

Sheila L. Birnbaum, *Unmasking the Test for Design Defect: From Negligence [To Warranty] To Strict Liability To Negligence*, 33 VAND. L. REV. 593, 599-600 (1980) [hereinafter *Unmasking the Test for Design Defect*].

¹² See generally Birnbaum, *supra* note 11, at 598; James A. Henderson, Jr., *Judicial Review of Manufacturers’ Conscious Design Choices: The Limits of Adjudication*, 73 COLUM. L. REV. 1531, 1577-78 (1973) [hereinafter *Judicial Review*].

¹³ Aaron D. Twerski, *From Defect to Cause to Comparative Fault — Rethinking Some Product Liability Concepts*, 60 MARQ. L. REV. 297, 304-305 (1977) (referring to Justice Stewart’s concurrence regarding the definition of “obscenity” in *Acobellis v. Ohio*, 378 U.S. 184, 197 (1964) (Stewart, J., concurring)).

incapable of resolving such issues, and that questions of what constitutes an acceptably designed product are better left to the legislature.¹⁴

The proposed approaches for determining liability for product design differ profoundly. First, courts and commentators are split over whether design errors should be evaluated under traditional negligence principles,¹⁵ or under a distinct theory of strict liability in tort.¹⁶ Moreover, there is disagreement over the appropriate standard for determining when a product is defective in design. At present, at least four distinct tests are discernible.¹⁷ While the Reporters' Note that accompanies the liability section in Tentative Draft No. 2 effectively supports the proposed liability standard for defective design by surveying these tests, it does not present an overall analysis of the standards adopted throughout all jurisdictions. Thus, despite the A.L.I.'s adoption of the Draft, the question persists whether the Draft lives up to the Reporters' promise to restate as closely as possible the existing law, or

¹⁴ See Epstein, *supra* note 10, at 84-88 (judges cannot make the "multiple, delicate, marginal determinations necessary to evaluate the cost-benefit trade-off") and Henderson, Jr., *Judicial Review of Manufacturers' Conscious Design Choices: The Limits of Adjudication*, *supra* note 12, at 1577-78 (establishing product safety standards is a polycentric problem best suited for legislative response rather than judicial adjudication). *But see*, MARSHALL SHAPO, *THE LAW OF PRODUCTS LIABILITY* § 9.09[2], at 9-14-15 ("a [properly instructed] jury can perform the necessary balancing test as well as any individual or agency.") and Aaron D. Twerski et al., *The Use and Abuse of Warnings in Product Liability: Design Defect Litigation Comes of Age*, 61 CORNELL L. REV. 495, 525-28 (1976) (design defect cases are not truly polycentric and courts are competent to judge them).

¹⁵ See, e.g., Prentis, 365 N.W.2d at 186 (adopting "a pure negligence, risk-utility test in products liability actions. . . where liability is predicated upon defective design."). *See also* PROSSER, ET AL., *THE LAW OF TORTS* (4th ed.), § 96, at 644 (declaring that the liability of a manufacturer for defective design rests "upon a departure from proper standards of care, so that the tort is essentially a matter of negligence."); Birnbaum, *supra* note 11, at 610 ("When a jury decides that the risk of harm outweighs the utility of a particular design. . . it is saying that in choosing the particular design and cost trade-offs, the manufacturer exposed the consumer to greater risk of danger than he should have. Conceptually and analytically, this approach bespeaks negligence.").

¹⁶ *See, e.g.*, *Barker v. Lull Eng'g Co.*, 573 P.2d 443 (Cal. 1978). The court in *Barker* differentiated between negligence and strict liability in the context of design defects:

It is true, of course, that in many cases proof that a product is defective in design may also demonstrate that the manufacturer was negligent in choosing such a design. As we have indicated, however, in a strict liability case, as contrasted with a negligent design action, the jury's focus is properly directed to the condition of the product itself, and not to the reasonableness of the manufacturer's conduct.

Id. At 457.

¹⁷ The tests applied by the court may properly be classified as Risk-Utility balancing, Reasonable Consumer Expectations, the Barker Two-Prong test, or the Reasonably Prudent Manufacturer test. For a discussion of each alternative, *see infra* Part II.

whether the Draft is a veiled attempt to reform American products liability law.

The purpose of this Note, therefore, is twofold: first, to examine the various approaches to determining liability for defectively designed products in American products liability law; and second, to show that the Draft, as adopted, does accurately reflect the law of a majority of states. Part I describes and analyzes the substance of the Draft's design defect standard.¹⁸ Part II examines the most common approaches to cases based upon claims of defective design. This Note concludes in Part III that the Draft's standard accurately captures and clarifies design defect law as it has developed throughout American jurisdictions.

I

ANALYSIS OF THE RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY

This part examines the design defect standard contained in the new Restatement. Rather than retaining the troublesome language of strict liability and negligence, the Reporters for the *Restatement (Third) of Torts* seek to reduce the confusion surrounding the application of these doctrinal categories to defective designs by adopting a functional approach which directly addresses the defect's nature.

A. PROPOSED LIABILITY FOR DEFECTIVE DESIGN UNDER THE RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY

1. Introduction.

The Draft represents the first of six chapters of the *Restatement (Third) of Torts: Products Liability* and covers causes of action predicated on product defects that existed at the time of sale or distribution.¹⁹ Sections One and Two of the Draft establish standards for product defectiveness. Section One, entitled "Liability of Commercial Seller or Distributor for Harm Caused by Defective Products," imposes liability if, "at the time of sale or distribution, [the product] contains a manufacturing defect, is defective in design, or is defective because of inadequate instructions or warnings."²⁰ Comment a

¹⁸ This Note does not address the theoretical preferability of the negligence theory of strict liability in design defect cases. For a discussion on this topic, see Birnbaum, *Unmasking the Test for Design Defect*, *supra* note 11; DeWolf and Allen, *Liability for Manufacturers in Washington: When Is Strict Liability Appropriate?*, 27 GONZ. L. REV. 217 (1991/1992).

¹⁹ Tentative Draft No. 2. The subjects covered by the first chapter are "Product Defectiveness," "Causation," and "Affirmative Defenses."

²⁰ *Id.*, § 1, cmt. a. Section One reads:

recognizes that any rule developed for manufacturing flaws would be inappropriate for the resolution of claims involving the other two types of defects.²¹ Accordingly, Section Two establishes three distinct standards for liability.²²

2. *A Functional Approach to Product Defectiveness.*

The Draft retains strict liability for cases involving manufacturing defects.²³ Thus, a manufacturer or distributor of a product which departs from its intended design is liable for any harm caused by the defect regardless of the level of care exercised by the manufacturer or distributor in the preparation and marketing of the product. In contrast, the Draft's standards for defective design and failure to warn defects rely on a reasonableness test which has traditionally been applied in negligence cases.²⁴ While the Reporters acknowledge that the latter standards are predicated on a concept of

(a) One engaged in the business of selling or otherwise distributing products who sells or distributes a defective product is subject to liability for harm to persons or property caused by the product defect.

(b) A product is defective if, at the time of sale or distribution, it contains a manufacturing defect, is defective in design, or is defective because of inadequate instructions or warnings.

Id.

²¹ *Id.*, § 1, cmt. a.

²² *Id.*, § 2. Section Two reads:

For purposes of determining Liability under § 1:

(a) a product contains a manufacturing defect when the product departs from its intended design even though all possible care was exercised in the preparation and marketing of the product;

(b) a product is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design by the seller or other distributor, or a predecessor in the commercial chain of distribution, and the omission of the alternative design renders the product not reasonably safe;

(c) a product is defective because of inadequate instructions or warnings when the foreseeable risks of harm posed by the product could have been reduced or avoided by the provision of reasonable instructions or warnings by the seller or other distributor, or a predecessor in the commercial chain of distribution, and the omission of the instructions or warnings renders the product not reasonably safe.

Id.

²³ Tentative Draft No. 2, § 1, cmt. a.

²⁴ *Id.*

responsibility rather than strict liability,²⁵ they avoid making any doctrinal distinctions. The Reporters state that, “[r]ather than perpetuating confusion spawned by existing doctrinal categories [i.e. strict liability, negligence, and warranty], Sections One and Two define the liability for each form of defect in [functional] terms directly addressing the various kinds of defects.”²⁶

Although the Draft abandons doctrinal distinctions, the Reporters recognize that many courts insist upon using “strict liability” language in design defect cases.²⁷ This “rhetorical preference” stems in part from the courts’ desire to limit the defense of contributory negligence in products liability cases and their concern that the negligence standard might be too forgiving of a small manufacturer.²⁸ Moreover, the Reporters observe that this preference reflects the “strict” nature of the liability imposed on non-manufacturing sellers, since in such cases “[i]t is no defense that [the defendants] acted reasonably and were not aware of a defect in the product, be it manufacturing, design, or failure to warn.”²⁹ Recognizing this “rhetorical preference,” the Reporters conclude that as long as plaintiffs satisfy the “functional criteria” of Section Two, “courts may utilize the terminology of negligence, strict liability or the implied warranty of merchantability, or simply define liability in the terms set forth in the black letter.”³⁰

3. *Design Defects.*

Section Two of the Draft defines a design defect in terms of “foreseeable risk of harm,” and the availability of a safer “reasonable alternative design.”³¹ The definition, which is contained in Section 2(b), is as follows:

(b) 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.³²

²⁵ § 2, cmt. c., *Id.*

²⁶ § 1, cmt. a., *Id.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ *Id.* § 2.

³² *Id.*

This section adopts a risk-utility balancing test as the standard for judging defectiveness in product design.³³ Specifically, the test is (1) whether at the time of sale or manufacture there was available a reasonable and financially practical alternative design which would have reduced the foreseeable risks of harm posed by the challenged product, and (2) whether the manufacturer's failure to adopt such a design rendered the product not reasonably safe.³⁴ To evaluate the reasonableness of an "alternative design," and to determine whether its omission rendered the product not reasonably safe, the trier of fact must balance the utilities of the respective designs against their inherent risks of danger. Thus, the trier of fact must determine whether the proposed alternative design, on balance, provides net benefits to the product. The Draft places the burden of producing such evidence on the plaintiff.³⁵

To aid in this analysis, comment e to Section Two provides a non-exhaustive list of nine factors which may be considered in the balancing process.³⁶ In addition, the Reporters explain that it is not sufficient that the proposed alternative design would have reduced or avoided the risk of the type of injury suffered by the claimant if, at the same time, it would have exposed a different class of users to risks of greater or equal magnitude. Such a design is not considered to be "reasonable." Rather, to support a claim of defective design, the alternative design must increase the *overall* safety of the product.³⁷

a. The Reasonable Alternative Design Requirement and the Habush Amendment.

While Section Two of the Draft requires plaintiffs to prove that adopting an alternative design would have eliminated or reduced the overall risk of harm inherent in the product without unreasonably diminishing its utility, it does not require the plaintiff to produce a working prototype.³⁸ For example, the plaintiff can establish a *prima facie* case by presenting qualified expert testimony that reasonably supports the conclusion that a safer reasonable alternative design could have been adopted at the time of sale or distribution.³⁹

³³ *Id.*, § 2, cmt. c.

³⁴ *Id.*

³⁵ *Id.*

³⁶ Tentative Draft No. 2, § 2, cmt. d. The nine factors are: (1) magnitude of foreseeable risk; (2) nature and strength of consumer expectations; (3) effects of alternative design on cost of production; (4) effects of alternative design in product function; (5) advantages and disadvantages of the proposed safety features; (6) effects on product longevity; (7) maintenance and repair; (8) aesthetics; and (9) marketability. *Id.*

³⁷ *Id.*

³⁸ *Id.* § 2, cmt. e.

³⁹ *Id.*

Whether the design suggested by plaintiff's expert witness constitutes an alternative within the meaning of this section depends generally upon the degree of substitutability between the product as designed by the defendant and the alternative suggested by the plaintiff.⁴⁰ A manufacturer or seller will not be liable for defective design unless the alternative suggested by the plaintiff is a relatively close substitute for the product designed and distributed by the defendants. Once the plaintiff establishes that an alternative design was available, the reasonableness of that design is determined by comparing the risks and benefits of the two alternatives.⁴¹

As contained in Tentative Draft No.1, the requirement that plaintiff establish the availability of a reasonable alternative to the product as designed by the defendant applied to all allegations of defective design.⁴² So formulated, Section Two effectively insulated from challenge whole categories of products which arguably were dangerous beyond any possible benefit to consumers but which, by their nature, could not be redesigned to avoid or reduce risk.⁴³ Thus, absent a manufacturing defect or an inadequate warning, a plaintiff injured by such common and widely distributed products as alcoholic beverages, cigarettes, firearms, and above-ground swimming pools could not recover, unless she could establish that the risk that culminated in her injury could have been reduced or eliminated by adopting an alternative design without significantly effecting the social usefulness of the product. In other words, courts could not impose liability on the manufacturers and

⁴⁰ See, e.g., Henderson & Twerski, *Closing the American Products Liability Frontier: The Rejection of Liability Without Defect*, 66 N.Y.U. L. REV. 1263 (1991). The reporters offer the following explanation of the alternative design requirement:

The variable that determines whether one is dealing with a product category or merely a marginal design variation within a category is the degree of substitutability of the alternative suggested by the plaintiff and the product as designed by the defendant. In traditional, intracategory design litigation, the alternative design suggested or implicated by the plaintiff is a relatively close substitute for the product as designed by the defendant. Bicycles with slightly longer handle bars are close substitutes for bicycles with slightly shorter handle bars. Presumably, if plaintiffs succeeded with longer-handle bar claims, the new alternative design would resemble so closely the older design as to be nearly a perfect substitute, thus effectively driving the former variation, which alone would carry the burden or tort liability, from the new bicycle market. . . . In contrast, when a plaintiff attacks a bicycle design on the ground that a two-wheeled cycle is inherently unsafe, the next best alternative – a tricycle – is not a very close substitute.

Id. at 1299.

⁴¹ See *supra* notes 31-37 and accompanying text.

⁴² See Restatement (Third) of Torts: Products Liability, Tentative Draft No. 1, § 2.

⁴³ See *ALI Hesitates on Lawyer Liability, Products Liability Restatement Efforts*, 62 U.S.L.W. 2734 (May 31, 1994) [hereinafter *ALI Hesitates on Lawyer Liability*].

distributors of such products solely because they are considered by some to have limited or negligible social utility.⁴⁴ Given the unavoidable nature of the risks inherent in the design of these products, Section Two of Tentative Draft No. 1 would effectively bar consumers injured thereby from recovery.

Two proposals by plaintiffs' lawyer Robert L. Habush at the A.L.I.'s May, 1994 annual meeting aimed to resolve this predicament. First, the Institute considered an amendment which would exclude from the requirement of reasonable alternative design products for which "the extremely high degree of danger posed by [their] use or consumption so substantially outweighs its negligible utility that no rational adult, fully aware of the relevant facts, would choose to use or consume the product."⁴⁵ Although the decision was strongly contested by some defense lawyers,⁴⁶ the amendment was approved and is now included in comment d to Section Two of the new Restatement.⁴⁷ Thus, comment d allows for the possibility that "the designs of some products [may be] so manifestly unreasonable, in that they have low social utility and high degree of danger, that liability should attach even absent proof of a reasonable alternative design."⁴⁸ However, without any caselaw in support of its proposition, comment d is unable to suggest any real-world products which would satisfy its rule.⁴⁹ The second amendment proposed by Habush, which sought to shift the burden of proving economic and technological feasibility to defendants, was defeated.⁵⁰

b. Consumer Expectations Rejected as an Independent Test of Design Defectiveness.

⁴⁴ See, e.g., *Baughn v. Honda Motor Co. Inc.*, 727 P.2d 655 (Wash. 1986) (refusing to adopt a rule which would make manufacturer of mini-trail bikes strictly liable in absence of alternative design); *Patterson v. Rohm Gesellschaft*, 608 F. Supp. 1206 (N.D. Tex. 1985) (same, addressing handguns); and *Gunsalus v. Celotex Corp.*, 674 F. Supp. 1149 (E.D. Pa. 1987) (same, addressing cigarettes). But see *O'Brien v. Muskin Corp.*, 463 A.2d 298 (N.J. 1983) (holding manufacturer of above-ground pool strictly liable even though no alternative design was available).

⁴⁵ See *ALI Hesitates on Lawyer Liability*, *supra* note 43.

⁴⁶ *Id.*

⁴⁷ Tentative Draft No. 2., § 2(b), cmt. d.

⁴⁸ *Id.*

⁴⁹ The reporters offer two hypothetical situations in which comment d might apply. The first is "a toy gun that shoots hard rubber pellets with sufficient velocity to cause injury to children . . ." *Id.* But see, *Koepke v. Crosman Arms Co.*, 582 N.E.2d 1000, 1001 (Ohio Ct. App. 1989) (refusing to hold manufacturer of a properly functioning BB gun liable for resulting injuries). The other potential situation for invoking comment d suggested by the reporters involves an exploding cigar which explodes with sufficient heat to light the user's beard on fire causing severe facial burns.

⁵⁰ See *ALI Hesitates on Lawyer Liability*, *supra* note 43.

The only alternative to the risk-utility test offered by the case law for judging the fitness of product design is the so called consumer expectations test.⁵¹ Under this test, a product is defective in design if it fails to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner.⁵² Despite the test's apparent popularity, the Draft explicitly rejects this approach as an independent and alternative standard of design defectiveness.⁵³ Thus, in order to recover in cases predicated explicitly and solely upon defective design, a plaintiff must prove that the manufacturer failed to adopt a reasonable and practical alternative design which would have reduced the overall foreseeable risks of danger posed by the product. The Draft likewise explicitly rejects consumer expectations as a bar to recovery. This provision follows the majority approach which holds that "[t]he mere fact that a risk presented by a product design is open and obvious, or generally known, and that the product thus satisfies expectations, does not prevent a finding that the design is defective."⁵⁴ As a result, while a plaintiff may not depend on consumer expectations as a means for establishing a design defect, he will not be denied recovery merely because the product conformed with consumer expectations about its safety.

Consumer expectations regarding the product's safety and performance continue, however, to be relevant in two important ways. First, the Draft retains consumer expectations as one of the factors in the risk-utility analysis.⁵⁵ In addition to presenting the required evidence of a safer reasonable alternative, a plaintiff can argue, for example, that the foreseeable risk of harm posed by the product was raised by the product's portrayal and marketing.⁵⁶ Since marketing is aimed at influencing the consumers' expectations regarding a product's quality, the fact that the product did not live up to those expectations is thus relevant to the determination of whether its design is defective. Second, as discussed in the following section, consumer expectations may permit an inference of defect where the product fails its manifestly intended function, and the nature of the defect falls within the common knowledge and experience of ordinary consumers.

⁵¹ See Henderson & Twerski, *A Proposed Revision*, *supra* note 8, at 1533.

⁵² See also Part II.C.

⁵³ Tentative Draft No. 2, § 2, cmt. f. "Under § 2(b), consumer expectations do not constitute an independent standard for judging the defectiveness of product designs." *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*, cmt. e.

⁵⁶ *Id.*, cmt. f. "[C]onsumer expectations about product performance and the dangers attendant to product use affect how risks are perceived and relate to foreseeability and frequency of the risks of harm, both of which are relevant under § 2(b). . . . Such expectations are often influenced by how products are portrayed and marketed and can have a significant impact on consumer behavior." *Id.*

B. INFERENCE OF (DESIGN) DEFECT

The risk-utility test contained in Section 2(b) of the Draft is the exclusive standard for judging the defectiveness of product designs. However, burdening the injured consumer with the requirement of presenting a safer reasonable alternative design may not only be unnecessary, but may also be unjustified where a product fails due to its design in a manner that makes it readily apparent to ordinary consumers. Thus, when the implicated product is a common one and the product fails to perform its intended function, the knowledge and expectations of the ordinary user as to the product's characteristics, "may permit an inference that the product did not perform as safely as it should."⁵⁷

1. *Introduction.*

The inference of defect is contained in Section Three of the new Restatement. Section Three reads:

§ 3. CIRCUMSTANTIAL EVIDENCE SUPPORTING INFERENCE OF PRODUCT DEFECT.

It may be inferred that the harm sustained by the plaintiff was caused by a product defect, without proof of a specific nature of the defect, when:

- (a) the incident resulting in the harm was of a kind that ordinarily would occur only as a result of product defect; and
- (b) evidence in the particular case supports the conclusion that more probably than not:
 - (1) the cause of the harm was a product defect rather than other possible causes, including the conduct of the plaintiff and third persons; and
 - (2) the product defect existed at the time of sale or distribution.

Section Three traces its theoretical roots to the law of negligence and the doctrine of *res ipsa loquitur*, which allows an inference of negligence where the injury could not have happened in the absence of negligence.⁵⁸ As the law

⁵⁷ *Soule v. General Motors Corporation*, 882 P.2d 298, 308 (Cal. 1994).

⁵⁸ The application of the *res ipsa loquitur* ("the thing speaks for itself") doctrine does not mean that the manufacturer will be liable regardless of fault. Rather, a product-caused injury is deemed to be *prima facie* evidence of negligence, eliminating the burden of proving that the manufacturer violated his duty of care. See generally JAMES A. HENDERSON, JR. & AARON D. TWERSKI, *PRODUCTS LIABILITY: PROBLEMS AND PROCESS* 18 (1987); Fleming James, Jr.,

of products liability developed, courts realized that requiring proof of the specific nature of the alleged defect often barred deserving plaintiffs from recovery.⁵⁹ To alleviate this perceived inequity, courts began to allow an inference of defect where the mere fact that the product malfunctioned was sufficient circumstantial proof of the product's defective condition.⁶⁰ Thus, in *res ipsa*-type situations, where the malfunction "speaks for itself," courts relieved the plaintiff of having to prove the specific nature of the defect which caused harm.⁶¹ Section Three recognizes the continued relevance of this doctrine in products liability cases.

To satisfy the requirements of Section Three, the case must involve a product which is a matter of common experience and which fails to perform its intended function. Some courts express this requirement in terms of consumer expectations, eliminating the necessity of proof of the exact nature of the defect when the circumstances surrounding the product's failure were such as to disappoint the reasonable consumer's expectations regarding the product's performance.⁶² Prior drafts of the new Restatement similarly phrased the inference in terms of reasonable consumer expectations.⁶³ In sum,

Proof of Breach in Negligence Cases, 37 VA. L. REV. 179 (1951).

⁵⁹ See, e.g., *Escola v. Coca Cola Bottling Co.*, 150 P.2d 436 (Cal. 1944). See generally JAMES A. HENDERSON, JR. & AARON D. TWERSKI, *PRODUCTS LIABILITY: PROBLEMS AND PROCESS* 18 (1987).

⁶⁰ See, e.g., *Dietz v. Waller*, 685 P.2d 744, 747-748 (Ariz. 1984) ("[N]o specific defect need be shown if the evidence, direct or circumstantial, permits the inference that the accident was caused by a defect."); *Cassisi v. Maytag Co.*, 396 So. 2d 1140, 1153 (Fla. Dist. Ct. App. 1981) ("[It is] immaterial that the plaintiff failed to identify the specific cause of the malfunction since . . . the malfunction itself . . . is evidence of the product's defective condition at both the time of the injury and the time of the sale."). The inference may not, however, be drawn from the mere fact that a product-related accident occurred. See, e.g., *Williams v. Smart Chevrolet Co.*, 730 S.W.2d 479 (Ark. 1987) (the mere fact that a car door swung open while the plaintiff was driving does not make out a case that the product was defective).

⁶¹ See, e.g., *Knight v. Otis Elevator Co.*, 596 F.2d 1017 (8th Cir. 1971) (plaintiff need not prove the existence of a specific defect if plaintiff can show that the product malfunctioned in the absence of abnormal use and reasonable secondary causes); *Marcus v. Anderson/Gore Homes, Inc.*, 498 So. 2d 105 (Fla. Dist. Ct. App. 1986) ("When a product malfunctions during normal operations, a legal inference arises that the product is defective.").

⁶² See, e.g., *Cassisi*, 396 So. 2d at 1146 ("[E]vidence of the nature of an accident itself may, under certain circumstances, give rise to a reasonable inference that the product was defective because the circumstances of the product's failure may be such as to frustrate the ordinary consumer's expectations of its continued performance."); *Tulgetsk v. R.D. Werner Co.*, 408 N.E.2d 492 (Ill. App. Ct. 1980) (plaintiff can make out strict liability claim by proving that the product failed to perform in a manner reasonably to be expected in light of its intended function).

⁶³ See Council Draft No. 2., Section Six which states:

When a product fails to function as a reasonable person would expect it to function, and causes harm under circumstances where it is more probable than not that the

Section Three allows an inference of product defect in *res ipsa*-type products liability cases — when the nature of the accident itself allows the trier of fact to conclude that the accident would not have happened absent a defect. A plaintiff who invokes this inference thus may need only allege that the product failed to function as safely as a reasonable user or consumer would expect it to function, and need not specify whether the accident was caused by a manufacturing or design flaw.

2. *Application to Design Cases*

By requiring a product to fail its manifestly intended function before allowing injured consumers to proceed under Section Three, the Reporters intended the section to apply primarily to cases involving manufacturing defects.⁶⁴ Manufacturing defects by definition cause the product to fail its intended function. Thus, “when a product unit contains such a defect, and the defect affects product performance in a harmful way, in most instances it will cause the product to fail such that the inference of defect is clear.”⁶⁵ Where this is the case, Section Three provides the plaintiff with an alternative theory of recovery that does not require him to establish the precise nature of the defect that caused his injury.

Section Three is not, however, limited to cases predicated upon manufacturing flaws. Occasionally, the product’s design may cause the product to perform in an intent-defeating manner virtually identical to the result of a manufacturing defect, thus satisfying the practical requirements of Section Three. Such design defects would necessarily have to be inadvertent, resulting from the manufacturer’s failure to thoroughly consider all aspects of the design.⁶⁶ The Reporters suggest, for example, that “an aircraft may inadvertently be designed in such a way that, while flying within its intended performance parameters, the wings suddenly fall off, causing harm.”⁶⁷ Likewise, bicycle brakes may be designed in a way which renders them unable to stop the bicycle.⁶⁸ Since both the aircraft and the bicycle brakes failed their manifestly intended functions, Section Three would allow the trier of fact to

malfunction was caused by a manufacturing defect, the trier of fact may infer that such a defect caused the malfunction and plaintiff need not specify the nature of the defect.

Id. § 6.

⁶⁴ Tentative Draft No. 2, § 3, cmt. b.

⁶⁵ *Id.*

⁶⁶ See generally Henderson, Jr., *Judicial Review*, *supra* note 12 at 1548.

⁶⁷ Tentative Draft No. 2, § 3, cmt. b.

⁶⁸ *Suter v. San Angelo Foundry & Mach. Co.*, 406 A.2d 140, 150 (N.J. 1979)

infer a defect in light of the circumstances of the accidents.⁶⁹ In contrast, an automobile passenger, injured when the automobile's front wheel smashed into the floorboard during an accident, may bring a design claim only under Section 2(b).⁷⁰ Under these circumstances, the proper performance of the automobile in an accident is beyond the common experience of the ordinary consumer and cannot be evaluated without balancing the risk and benefits of the automobile's design.⁷¹

3. *Relation to Section 2(b) liability*

Under limited circumstances, the general inference of product defect under Section Three provides consumers injured by defective product designs with an alternative to bringing their claims under Section 2(b). The rules of Section Three restrict its applicability to cases where the product "fails to perform its manifestly intended function," and is common enough so that an ordinary consumer, based on common knowledge and experience, could conclude that the accident would not have happened in the absence of a defect.⁷² Where these requirements are met, the plaintiff may only need to allege that the product failed to function as safely as an ordinary consumer would expect without having to establish the specific nature of the defect. These conditions, however, are not present in the majority of design cases where the alleged defect is the manufacturer's failure to adopt a safer design. Ordinarily, therefore, the plaintiff's only option in design cases is to establish that the product was defectively designed based on the standard articulated in Section 2(b).⁷³

The approach to design defects proposed by the Reporters is a substantial departure from the *Restatement (Second) of Torts*, Section 402A. In most cases, it requires a finding that the challenged product could have reasonably been made safer by adopting a reasonable alternative design before liability will be imposed. In addition, the well-known "consumer expectations" test is explicitly rejected as an independent standard of design defectiveness. Despite the Reporters' assertions that these changes are warranted

⁶⁹ Tentative Draft No. 2, § 3, cmt. b.

⁷⁰ These facts are based on *Soule v. General Motors Corp.*, 882 P.2d 298 (Cal. 1994) (holding that the circumstances of the accident did not permit an inference that the product did not perform as safely as it should).

⁷¹ *Id.*

⁷² Tentative Draft No. 2, § 3, cmt. b. ("Section 3 claims are limited to situations where a product fails to perform its manifestly intended function, thus triggering the conclusion that a defect of some kind is the most probable explanation.")

⁷³ *Id.*

by the state of existing law,⁷⁴ these changes are the focus of much criticism. This Note next examines whether the criticism is just.

II EVALUATING CURRENT APPROACHES TO DESIGN DEFECTIVENESS

While courts today unanimously hold manufacturers liable for harm caused by "defective" products, they use a number of tests in determining when a product is in fact defective. Some of these tests are derived from Section 402A of the *Restatement (Second) of Torts*; others are rooted in the law of negligence. When applied to design defects, all of these tests implicate some consideration of the product's value to society and the risk of danger inherent in its design.⁷⁵

A. DESIGN DEFECTIVENESS UNDER SECTION 402A.

The *Restatement (Second) of Torts, Section 402A*, states that one who sells any product in a defective condition which makes the product unreasonably dangerous to the user or consumer, or to his property, is subject to liability for the harm caused by the product.⁷⁶ A "defective condition" is defined as one "not contemplated by the ultimate consumer, which will be unreasonably dangerous to him."⁷⁷ Comment i similarly defines "unreasonably dangerous" to mean that the product "must be dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to the product's characteristics."⁷⁸ Thus, both the requirement of defectiveness and that of unreasonable danger require proof that the product was in a condition

⁷⁴ See Henderson & Twerksi, *A Proposed Revision*, *supra* note 8, at 1534. The co-reporters further 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.

Id. at 1513.

⁷⁵ See PROSSER NAD KEETON, *THE LAW OF TORTS*, at 699 (5th Ed. 1984); See also, *infra* notes 349-354, and accompanying text.

⁷⁶ RESTATEMENT (SECOND) OF TORTS, § 402A(1965).

⁷⁷ *Id.* cmt. g.

⁷⁸ *Id.* cmt. i.

not contemplated by the ordinary consumer. While the circularity of these definitions did not affect cases involving manufacturing flaws, it significantly confused the analyses in design cases.⁷⁹

The Section 402A definition of defectiveness has proven to be problematic in a number of ways when it is applied to design defects. First, Section 402A speaks of “defective” and “unreasonably dangerous” as if they are two independent requirements, even though a finding that a product is unreasonably dangerous appears to imply that it is defective in design.⁸⁰ Consequently, while some courts applying this test require a plaintiff to prove both aspects of a product’s design before strict liability in tort will be imposed for product-related injuries,⁸¹ other courts view these terms as synonymous and do not require a plaintiff to prove defectiveness as a separate matter.⁸² Still others have focused the inquiry on the nature of the defect, thereby dispensing with any requirement that a defect be unreasonably dangerous.⁸³ Second, reliance on the consumer’s expectations in defining a defect effectively excludes liability in situations where the injury was caused by a condition of the product which was apparent and obvious, since the consumer’s expectations arguably included the danger.⁸⁴ In an effort not to discourage product improvements which would reduce the risk of harm at a reasonable cost, courts eventually abolished the “open and obvious” danger rule.⁸⁵ Third,

⁷⁹ See Richard A. Epstein, *Products Liability: The Search for the Middle Ground*, 56 N.C. L. REV. 643, 649 (1978) (discussing the confusion generated by § 402A). See also John W. Wade, *On the Nature of Strict Liability for Products*, 44 MISS. L.J. 825, 830-32 (1973)[hereinafter *Strict Liability for Products*]; 5 FOWLER V. HARPER ET AL., THE LAW OF TORTS § 28.32A, at 584-88 (2d ed. 1986).

⁸⁰ *Aller v. Rodgers Mach. Mfg. Co.*, 268 N.W.2d 830 (Iowa 1978).

⁸¹ *Bruce v. Martin-Marietta Corp.*, 544 F.2d 442 (10th Cir. 1976) (applying Oklahoma law); *Aller v. Rodgers Mach. Mfg. Co.*, 268 N.W.2d 830 (Iowa 1978); *Byrns v. Riddell, Inc.*, 550 P.2d 1065 (Ariz. 1976); *Camacho v. Honda Motor Co.*, 701 P.2d 628 (Colo. 1985).

⁸² *Seattle-First Nat. Bank v. Tabert*, 542 P.2d 774 (Wash. 1975); *Bowman v. General Motors Corp.*, 427 F. Supp. 234 (E.D. Pa. 1977) (applying Pennsylvania law); *Cassisi v. Maytag Co.*, 396 So. 2d 1140 (Fla. App. 1981); *Burks v. Firestone Tire & Rubber Co.*, 633 F.2d 1152 (5th Cir. 1981) (applying Texas law).

⁸³ See, e.g., *Smith v. Detroit Marine Eng'g Corp.*, 712 S.W.2d 472, 475 (Tenn. Ct. App. 1988) (reversing judgment for defendant because trial judge instructed jury that product must have been both defective and unreasonably dangerous; according to appellate court, either showing is sufficient); *Cronin v. J.B.E. Olson Corp.*, 501 P.2d 1153, 1155 (Cal. 1972) (allowing recovery after finding that product was defective but not unreasonably dangerous).

⁸⁴ See generally David A. Fisher, *Products Liability—The Meaning of Defect*, 39 MO. L. REV. 339 (1974); Jerry J. Phillips, *Products Liability: Obviousness of Danger Revisited*, 15 IND. L. REV. 797 (1982). For a judicial criticism of this test as the sole test for design defect, see *Barker v. Lull Eng'g Co.*, 573 P.2d 443 (Cal. 1978).

⁸⁵ See Theresa L. Kruk, Annotation, *Products Liability: Modern Status of Rule That There is No Liability for Patent or Obvious Dangers*, 35 A.L.R. 861, 863 n.2 (4th ed. 1985); See, e.g., *Ford v. Harnischfeger Corp.*, 365 F. Supp. 502 (E.D. Pa. 1973); *Pike v. Frank G.*

despite the widespread agreement in tort law that injured bystanders can recover for product-related injuries regardless of privity, a literal reading of 402A would preclude recovery, because uninvolved bystanders cannot be said to have any expectations regarding the injury-causing product.⁸⁶

Perhaps the greatest challenge concerning the application of the Section 402A definition of defectiveness in a design defect case lies in determining the expectations of an ordinary consumer regarding a product which is marketed as intended by the manufacturer.⁸⁷ No consumer can reasonably be held to expect that a beverage bottle he is holding will shatter in his hands,⁸⁸ or that an automobile will lose its capacity to be steered.⁸⁹ In such contexts involving manufacturing defects or inadvertent design errors, the focus of the analysis is properly on the product, and the consumer's expectations are the logical determinant of its defectiveness.⁹⁰ What about situations where the product was sold in the condition intended by the manufacturer and it failed during an intended or foreseeable use? Since consumers rarely, if ever, expect to be injured by a product, the benefit of hindsight would allow plaintiffs to establish that the product was defective in almost every case.⁹¹ Such an approach is unallowable, because it would render defective any design which caused injury.⁹² Moreover, the tort-based requirement in Section 402A that the product be "unreasonably dangerous" was intended to protect products which are necessarily hazardous, such as, a knife or a handgun.⁹³ Thus, to prevent manufacturers from becoming absolutely liable, consumers' expectations in the context of design defects had to be defined in terms of the reasonableness of the danger.⁹⁴

Hough Co., 467 P.2d 229, 235 (Cal. 1970); *Micallef v. Miahle Co.*, 348 N.E.2d 571, 578 (N.Y. 1976).

⁸⁶ See PROSSER & KEETON, ON THE LAW OF TORTS § 99, at 698 (5th ed. 1984); See, e.g., *Passwaters v. General Motors Corp.*, 454 F.2d 1270, 1278 (8th Cir. 1972) (applying Iowa law); *Elmore v. American Motors Corp.*, 41 P.2d 84, 88-89 (Cal. 1969).

⁸⁷ See generally Wade, *Strict Liability for Products*, note 79, at 832-33.

⁸⁸ Cf. *Escola v. Coca Cola Bottling Co.*, 150 P.2d 436 (Cal. 1944).

⁸⁹ Cf. *Henningsen v. Bloomfield Motors, Inc.*, 161 A.2d 69 (N.J. 1960).

⁹⁰ M. STEWART MADDEN, PRODUCTS LIABILITY § 6.1 (2d ed. 1988).

⁹¹ *Id.* § 6.7.

⁹² Roger J. Traynor, *The Ways and Meanings of Defective Products and Strict Liability*, 32 TENN. L. REV. 363 (1965) (the drafters of Section 402A could not have contemplated this result, for "(d)efect becomes a fiction if it means nothing more than a condition causing physical injury.").

⁹³ See A.L.L., PROCEEDINGS 87-89 (1961); George L. Priest, *Strict Products Liability: The Original Intent*, 10 Cardozo L. Rev., 2301, 2318-19 (1989).

⁹⁴ See, e.g., W. Page Keeton, *Manufacturer's Liability: The Meaning of "Defect" in the Manufacture and Design of Products*, 20 SYRACUSE L. REV. 559, 563 (1969). See also *Bowman v. General Motors Corp.*, 427 F. Supp. 234 (E.D. Pa. 1977) (at least in a conscious

Section 402A was written with manufacturing flaws, not design problems, in mind, and its definitions were never intended to apply to design defect cases.⁹⁵ The test is too open-ended and unstructured to guide the analysis by the trier of fact in determining whether a product is defective in design.⁹⁶ Due to these difficulties in application, only a few courts adhere to the letter of Section 402A in cases involving defective design.⁹⁷

B. THE RISK-UTILITY ANALYSIS TEST

Today, an overwhelming majority of courts decide design defect cases using some form of risk-utility analysis.⁹⁸ Under the risk-utility analysis, which is at times referred to as the risk-benefit analysis test,⁹⁹ the product is defective as designed if and only if the degree of foreseeable risk of harm outweighs the utility or other benefits of the product.¹⁰⁰ The theory underlying this test is that “virtually all products have both risks and benefits and . . . there is no way to go about evaluating design hazards intelligently without weighing danger against utility.”¹⁰¹ Since no product can be made completely accident-proof, a determination of whether the product is defective in design ultimately involves a comparison of the risks and benefits of the reasonable alternative designs of which the manufacturer was, or should have been, aware.¹⁰² Thus, the risk-utility test entails, in effect, a comparison of the marginal risks and utilities affected by the proposed alternative design.¹⁰³

design choice case, the concept of defective condition standing alone is inappropriate and misleading, and defects should be defined in terms of the unreasonableness of the danger).

⁹⁵ See Priest, *Strict Products Liability: The Original Intent*, *supra* note 93 at 2311 (concluding that design defects were not intended to be subject to strict liability).

⁹⁶ See Henderson & Twerski, *A Proposed Revision*, *supra* note 8, at 1534; W. Page Keeton, *Products Liability, Design Hazards and the Meaning of Defect*, 10 COLUM. L. REV. 293, 310 (1979); Gary Schwartz, *Foreword: Understanding Products Liability*, 67 CAL. L. REV. 435, 476 n.241. See, e.g., *Bilotta v. Kelley Co.*, 346 N.W.2d 616 (Minn. 1984); *Turner v. General Motors Corp.*, 584 S.W.2d 844, 851 (Tex. 1979); *Heaton v. Ford Motors Co.*, 435 P.2d 806 (Or. 1967).

⁹⁷ See generally Epstein, *supra* note 10 (discussing the confusion generated by § 402A).

⁹⁸ See *infra* Part III.B.1.

⁹⁹ *West v. Johnson & Johnson Products, Inc.*, 220 Cal. Rptr. 437, 457 (Cal. App. 1985).

¹⁰⁰ PROSSER AND KEETON, *THE LAW OF TORTS* at 699 (5th Ed. 1984).

¹⁰¹ *Id.*

¹⁰² See, e.g., *Lease v. International Harvester Co.*, 529 N.E.2d 57 (Ill. App. 1988) (plaintiff failed to make out prima facie case of defective design because no evidence was introduced as to cost of alternative design or its effect on lawn mower's utility); see also LA. REV. STAT. § 9:2800.56 (1988) (requiring proof of reasonable alternative design); OH. REV. CODE § 2307.75(F) (requiring proof of practical and technically feasible alternative design).

¹⁰³ Henderson & Twerski, *Closing the American Products Liability Frontier: The*

In applying the risk-utility test, courts articulate the elements of their analysis in various ways. Under the heading of utility, the courts generally include anything that yields benefits of some kind to the product's users and to society, the overall need for the product, as well as the unavailability or financial impracticality of redesigning the product to reduce the risk of harm.¹⁰⁴ These considerations are then balanced against any risks posed by the design of the product of which the manufacturer knew or should have known, the likelihood of harm, the seriousness of the harm, and the nature of the danger.¹⁰⁵ In order to interject some degree of regularity and structure into the analysis of the risks and utility of a product, a number of courts adopted a set of factors which were initially formulated by Dean John Wade.¹⁰⁶ Dean Wade proposed that courts, in reaching a conclusion about a product's risk and utility, should consider:

- (1) the overall usefulness and desirability of the product;
- (2) the safety aspects of the product;
- (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; and
- (7) the manufacturer's ability to spread the loss by setting the price of the product or carrying insurance.

Expanding on Dean Wade's analytical protocol, courts have articulated additional factors which may properly be considered in making a risk-utility analysis in a design defect case. These factors have been variously stated to be:

- (8) the gravity of the danger posed by the challenged design;¹⁰⁷

Rejection of Liability without Defect, 66 N.Y.U. L. REV. 1263 (1991).

¹⁰⁴ See, e.g., *Barker v. Lull Eng'g Co.*, 573 P.2d 443 (Cal. 1978); *Owens v. Allis-Chalmers Corp.*, 326 N.W.2d 372 (Mich. 1982); *Prentis v. Yale Mfg. Co.*, 365 N.W.2d 176 (Mich. 1984). See also W. Page Keeton, *Products Liability — Design Hazards and The Meaning of Defect*, 10 COLUM. L. REV. 293, 314 (1979).

¹⁰⁵ *O'Brien v. Muskin Corp.*, 463 A.2d 298 (N.J. 1983). See also Keeton, *Products Liability — Design Hazards and The Meaning of Defect*, *supra* note 104.

¹⁰⁶ See Wade, *Strict Liability for Products*, *supra* note 79 at 837-838. For courts which adopted the Wade factors, see, e.g., *Cepeda v. Cumberland Eng'g Co.*, 386 A.2d 816 (N.J. 1978); *Voss v. Black & Decker Mfg. Co.*, 450 N.E.2d 204 (N.Y. 1983); *Prentis v. Yale Mfg. Co.*, 365 N.W.2d 176 (Mich. 1984).

¹⁰⁷ See, e.g., *Barker v. Lull Eng'g Co.*, 573 P.2d 443 (Cal. 1978); *Owens v. Allis-*

- (9) the likelihood and probable seriousness of the danger;¹⁰⁸
- (10) the financial cost of the proposed safer design;¹⁰⁹
- (11) the adverse consequences to the product and to the consumer that would result from the proposed alternative design;¹¹⁰
- (12) public knowledge and expectations of the product's danger;¹¹¹
- (13) the state of the art at the time of manufacture;¹¹² and
- (14) whether the challenged product is an essential or a luxury item.¹¹³

The trier of fact is not required to consider all of the factors enumerated above in evaluating every allegation of defective design.¹¹⁴ Rather, the trier of fact only needs to balance those factors which are relevant under the facts of the particular case.¹¹⁵ The risk-utility test therefore defines safe products as those whose utility and other benefits outweigh the foreseeable risk of harm, "provided that risk has been reduced to the greatest extent possible consistent with the product's continued utility."¹¹⁶ This determination must be based on the particular facts of each case.¹¹⁷

1. *Safer Alternative Design Requirement — Categorical Liability Rejected*

Chalmers Corp., 326 N.W.2d 372 (Mich. 1982); Ford Motor Co. v. Nowak, 638 S.W.2d 582 (Tex. App. 1982).

¹⁰⁸ See, e.g., Voss v. Black & Decker Mfg. Co., 450 N.E.2d 204 (N.Y. 1983); Knitz v. Minister Mach. Co., 432 N.E.2d 814 (Ohio 1982); Barker v. Lull Eng'g Co., 573 P.2d 443 (Cal. 1978).

¹⁰⁹ See, e.g., Barker v. Lull Eng'g Co., 573 P.2d 443 (Cal. 1978); Fox v. Ford Motor Co., 575 F.2d 774 (Wyo. 1978); Kindred v. Con/Chem, Inc. 644 S.W.2d 61 (Tex. 1982).

¹¹⁰ See, e.g., Byrns v. Riddell, Inc., 550 P.2d 1065 (Ariz. 1976); Cepeda v. Cumberland Eng'g Co., 386 A.2d 816 (N.J. 1978); Phillips v. Kimwood Mach. Co., 525 P.2d 1033 (Or. 1974).

¹¹¹ See, e.g., Byrns v. Riddell, 550 P.2d 1065 (Ariz. 1976); Dart v. Wiebe Mfg., Inc., 709 P.2d 876 (1985).

¹¹² See, e.g., O'Brien v. Muskin Corp., 463 A.2d 298, 305 (N.J. 1983). (stating that "state-of-the-art evidence is relevant to, but not necessarily dispositive of, risk-utility analysis.")

¹¹³ See, e.g., *id.* at 306. "The evaluation of the utility of a product also involves the relative need for that product; some products are essentials, while others are luxuries. A product that fills a critical need and can be designed in only one way should be viewed differently from a luxury item." *Id.*

¹¹⁴ See, e.g., Voss v. Black & Decker Mfg. Co., 450 N.E.2d 204, 209 (N.Y. 1983).

¹¹⁵ See, e.g., Dawson v. Chrysler Corp., 630 F.2d 950 (2d Cir. 1980), *cert. denied*, 450 U.S. 959 (1980) (applying New Jersey law).

¹¹⁶ Beshada v. Johns-Manville Prod. Corp., 477 A.2d 539, 544 (1982).

¹¹⁷ See, e.g., O'Brien v. Muskin Corp., 463 A.2d 298 (N.J. 1983).

A relevant factor in every design case is the manufacturer's ability to reduce the foreseeable risk of harm by adopting a reasonable alternative design.¹¹⁸ Some courts have held that notwithstanding its relevancy and admissibility in design cases, proof of the feasibility of an alternative design is not necessary in all cases.¹¹⁹ The majority of jurisdictions, however, require proof thereof either by statute¹²⁰ or judicial decision.¹²¹ Thus, courts have insisted that plaintiffs introduce evidence that a safer design was scientifically¹²² or mechanically feasible,¹²³ or that a safer substitute product was available.¹²⁴ In addition, they have held that plaintiff should present evidence of the financial cost of a safer alternative,¹²⁵ as well as any adverse consequences of the proposed design, such as its affect on other types of risk.¹²⁶

¹¹⁸ See *infra* Part III.B.2.

¹¹⁹ O'Brien v. Muskin Corp., 463 A.2d 298 (N.J. 1983); Seward v. Griffin, 452 N.E.2d 558 (Ill. App. Ct. 1983); Mitchell v. Freuhauf Corp., 568 F.2d 1139 (5th Cir. 1978) (applying Texas law); Rahmig v. Mosley Mach. Co., 412 N.W.2d 56 (Neb. 1987); Halphen v. Johns-Manville Sales Corp., 484 So. 2d 110 (La. 1986); Kelley v. R.G. Indus., Inc., 497 A.2d 1143 (Md. 1985).

¹²⁰ See, e.g., LA. REV. STAT. § 9:2800.56 (1988) (requiring proof of reasonable alternative design); OH. REV. CODE § 2307.75(F) (1995) (requiring proof of practical and technically feasible alternative design); N.J. STAT. § 2A:58C-3 (1990).

¹²¹ See, e.g., Townsend v. General Motors Corp., 642 So. 2d 411 (Ala. 1994); Banks v. ICI Americas, 450 S.E.2d 671 (Ga. 1994); Hughes v. Massey-Ferguson, Inc., 522 N.W.2d 294 (Iowa 1994); Habecker v. Clark Equip. Co., 36 F.2d 278 (3rd. Cir. 1994) (applying Pennsylvania law); Owens v. Allis-Chalmers Corp., 326 N.W.2d 372 (Mich. 1982); Voss v. Black & Decker Mfg. Co. 450 N.E.2d 204 (N.Y. 1983); Toliver v. General Motors Corp., 482 So. 2d 213 (Miss. 1985); Hull v. Eaton Corp., 825 F.2d 448 (D.C. Cir. 1987) (applying District of Columbia law); Smith v. Keller Ladder Co., 645 A.2d 1269 (N.J. Super. A.D. 1994); Wilson v. Piper Aircraft Corp., 577 P.2d 1322 (Or. 1978); Lease v. International Harvester Co., 529 N.E.2d 57 (Ill. App. 1988); Armentrout v. FMC Corp., 842 P.2d 175 (Colo. 1992); Kotler v. American Tobacco Co., 926 F.2d 1217 (1st Cir. 1990) (applying Massachusetts law); Allen v. Minnstar, Inc., 8 F.3d 1470 (Utah 1993).

¹²² See, e.g., Kindred v. Con/Chem, Inc., 644 S.W.2d 828 (Tex. Ct. App. 1982), *rev'd on other grounds*, 650 S.W.2d 61 (Tex. 1983).

¹²³ See, e.g., Barker v. Lull Eng'g, 573 P.2d 443 (Cal. 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). *But see*, Allen v. Minnstar, Inc., 8 F.3d 1470 (10th Cir. 1993) (applying Utah law) (holding that plaintiffs burden is not satisfied merely by proof that a prototype of the proposed alternative design existed).

¹²⁴ See, e.g., Dart v. Wiebe Mfg., Inc., 709 P.2d 876 (Ariz. 1985); Voss v. Black & Decker Mfg. Co., 450 N.E.2d 204 (N.Y. 1983); Wilson v. Piper Aircraft Corp., 577 P.2d 1322 (Or. 1978).

¹²⁵ See, e.g., Barker v. Lull Eng'g, 573 P.2d 443 (Cal. 1978); Voss v. Black & Decker Mfg. Co., 450 N.E.2d 204 (N.Y. 1983); Owens v. Allis-Chalmers Corp., 326 N.W.2d 372 (Mich. 1982); Kindred v. Con/Chem, Inc., 644 S.W.2d 828 (Tex. Ct. App. 1982), *rev'd on other grounds*, 650 S.W.2d 61 (Tex. 1983).

¹²⁶ See, e.g., Barker v. Lull Eng'g, 573 P.2d 443 (Cal. 1978); Owens v. Allis-Chalmers

Thus, to be reasonable, the proposed alternative must be not only economically and mechanically feasible, but it must also result in a reduction of the overall magnitude of risk.

The burden of introducing evidence on the feasibility and reasonableness of a safer alternative design usually falls on the plaintiff who challenges the design.¹²⁷ While it is not necessary for the plaintiff to offer evidence on each of the points mentioned above,¹²⁸ he does not fulfill his burden of proof by merely asserting that the proposed design would have reduced the risk of harm.¹²⁹ In most jurisdictions, therefore, the plaintiff is required to present evidence on at least one of the aforementioned points.¹³⁰ Nevertheless, a few courts have held that once the plaintiff has established that the design was a proximate cause of his injuries, the manufacturer must prove that a safer reasonable alternative did not exist.¹³¹ As a practical matter, however, plaintiff's proof of proximate causation will almost always include evidence of a reasonable alternative design.¹³²

The bulk of defective design cases involve individual products for which alternative designs are at least conceptually available. The inquiry changes, however, when the plaintiff attempts to convince the court to extend liability for defective design to a whole product category, such as handguns or cigarettes.¹³³ Due to the nature of these claims, no alternative design can be proven or alleged.¹³⁴ Despite the frequency with which these arguments are made, only a few courts have been receptive to the idea of categorical liability.¹³⁵ The landmark case in this area is *O'Brien v. Muskin Corp.*¹³⁶ In

Corp., 326 N.W.2d 372 (Mich. 1982); *Cremeans v. International Harvester Co.*, 452 N.E.2d 1281 (Ohio 1983).

¹²⁷ See *infra* Part III.B.2.

¹²⁸ See, e.g., *Kindred v. Con/Chem, Inc.*, 644 S.W.2d 828 (Tex. Ct. App. 1982), *rev'd on other grounds*, 650 S.W.2d 61 (Tex. 1983).

¹²⁹ See, e.g., *Westinghouse Elec. Corp. v. Nutt*, 407 A.2d 606 (D.C. App. 1979).

¹³⁰ See, e.g., *Kindred v. Con/Chem, Inc.*, 644 S.W.2d 828 (Tex. Ct. App. 1982), *rev'd on other grounds*, 650 S.W.2d 61 (Tex. 1983).

¹³¹ See, e.g., *Caterpillar Tractor Co. v. Beck*, 593 P.2d 871 (Alaska 1979); *Barker v. Lull Eng'g Co.*, 573 P.2d 443 (Cal. 1978).

¹³² See, e.g., *Kallio v. Ford Motor Co.*, 407 N.W.2d 92, 96 n.6 (Minn. 1987) ("Examination of our cases . . . [alleging] defective design demonstrates that, as a practical matter, successful plaintiffs, almost without fail, introduce evidence of an alternative safer design.").

¹³³ See, e.g., *Maguire v. Pabst Brewing Co.*, 387 N.W.2d 565, 570 (Iowa 1986) (holding that beer is not an unreasonably dangerous product).

¹³⁴ *Id.* The claim alleged that beer itself, not just a specific brand, is unreasonably dangerous, but there is no true substitute for beer.

¹³⁵ *O'Brien v. Muskin Corp.*, 463 A.2d 298 (N.J. 1983); *Halphen v. Johns-Mansville Sales Corp.*, 484 So. 2d 110, 113 (La. 1986); *Kelly v. R.G. Inds.*, 497 A.2d 1143, 1146 (Md. 1985). See generally *Henderson & Twerski, Closing the Frontier, supra* note 40, at 1273

that case, the plaintiff was injured when he struck his head on the bottom of an above ground swimming pool. The trial judge refused to allow the jury to consider plaintiff's design-defect claim, which alleged that the pool's slippery vinyl liner was defective, because plaintiff's expert could not propose a viable substitute for the vinyl liner. On appeal, the New Jersey Supreme Court reversed, holding that "[a] product may be defective and unreasonably dangerous even though there are no alternative, safer designs available."¹³⁷ Thus, even in the absence of a reasonable alternative design the jury was entitled to find that "the risk posed by the [product] outweighed its utility."¹³⁸ Similar advances have been made by plaintiffs in Maryland¹³⁹ and Louisiana.¹⁴⁰ In each of these cases, however, the legislatures of the respective states have enacted statutes overturning the courts' decisions and reinstating the requirement that a reasonable alternative design be proven as part of a design-defect claim.¹⁴¹ As a result, no jurisdiction currently applies the rationale of *O'Brien* in design defect cases.¹⁴²

2. *Habush Amendment — An Empty Set*

Courts have not yet had the opportunity to decide whether proof of a reasonable alternative design is necessary to maintain a claim of defective design against a product with negligible utility and a high risk of harm.¹⁴³ Moreover, it is doubtful whether an actual product would possess the charac-

(discussing difficulties inherent in a court's implementation of categorical liability).

¹³⁶ *O'Brien v. Muskin Corp.*, 463 A.2d 298 (N.J. 1983).

¹³⁷ *Id.*

¹³⁸ *Id.* at 306.

¹³⁹ *Kelley v. R.G. Indus.*, 497 A.2d 1143, 1146 (Md. 1985).

¹⁴⁰ *Halphen v. Johns-Mansville Sales Corp.*, 484 So. 2d 110, 113 (La. 1986).

¹⁴¹ See La. Rev. Stat. Ann. § 9:2800.56(1) (West 1991); N.J. Stat. Ann. § 2A:58C-3 (West 1989); Md. Code Ann. 27, Section 36-I (1942) (prohibiting the imposition of strict liability for injuries resulting from criminal use of a firearm).

¹⁴² See generally Tentative Draft No. 2 (1994), § 2 cmt. c; Henderson & Twerski, *Closing the Frontier*, *supra* note 40.

¹⁴³ Restatement (Third) of Torts: Products Liability, Council Draft No. 2, § 2 cmt. c (September 3, 1994).

teristics necessary to invoke the exemption.¹⁴⁴ Such an exemption has, however, been proposed in dictum by a number of courts.

The Oregon Supreme Court in *Wilson v. Piper Aircraft Corp.*¹⁴⁵ was the first to indicate that proof of a reasonable alternative design might not be necessary in instances where a product has both a high degree of risk and a very low level of social utility.¹⁴⁶ In *Wilson*, plaintiff brought a claim alleging that the design of an airplane engine manufactured by the defendant was defective. In its decision, the Court focused on the practicability of a safer alternative design introduced by the plaintiff, and it concluded that the evidence presented was insufficient to prove that the alternative was “not only technically feasible but also practicable in terms of cost and the overall design and operation of the product.”¹⁴⁷ The court refused to submit the claim to the jury, and it emphasized that, in Oregon, presenting such evidence “is part of the *required proof* that a design feature is a ‘defect’ . . .”¹⁴⁸ Nevertheless, in an often-cited footnote, the court left open the prospect of liability without an alternative design:

. . . There might be cases in which the jury would be permitted to hold the defendant liable on account of a dangerous design feature even though no safer design was feasible (or there was no evidence of a safer practicable alternative.) If, for example, the danger was relatively severe and the product had only limited utility, the court might properly conclude that the jury could find that a reasonable manufacturer would not have introduced such a product into the stream of commerce. We hold here only that, given the nature of the defects alleged, it was improper to submit the issue of a defect in the engine design to the jury in the absence of appropriate evidence that the safer alternative design was practicable.¹⁴⁹

¹⁴⁴ Since the Reporters are unable to support the exception with case law, they instead offer two examples of products which in their opinion would satisfy the manifestly unreasonable design standard. The first example involves a “toy gun that shoots hard rubber pellets with sufficient velocity to cause injury to children . . .” *But see* *Koepke v. Crosman Arms Co.*, 582 N.E.2d 1000, 1001 (Ohio Ct. App. 1989)(refusing to apply strict liability to properly functioning BB gun). The other example involves an exploding cigar that generates enough heat to cause serious burns.

¹⁴⁵ 577 P.2d 1322, 1328 n.5 (Or. 1978)

¹⁴⁶ *Id.*

¹⁴⁷ *Id.* at 1326-27.

¹⁴⁸ *Id.* at 1327 [emphasis added].

¹⁴⁹ *Id.* at 1358 n. 5.

The *Wilson* footnote has been echoed in decisions from other states, but it has never been utilized. In *Armentrout v. FMC Corp.*,¹⁵⁰ the Colorado Supreme Court cited *Wilson* for the proposition that although proof of a “feasible alternative is a factor in the risk-benefit analysis of the unreasonable dangerousness of the product,” such evidence “is not always necessary.”¹⁵¹ Similarly, although Minnesota courts require plaintiffs to show the existence of a safer alternative design as part of a defective design claim,¹⁵² the Minnesota Supreme Court in *Kallio v. Ford Motor Co.*¹⁵³ relied on *Wilson* for its statement that “[c]onceivably, rare cases may exist where the product may be judged dangerous because it should be removed from the market rather than redesigned.”¹⁵⁴ The Colorado and Minnesota courts’ express reliance on *Wilson* suggests that courts have reserved this exception to the reasonable alternative design requirement for those cases where the product has negligible utility and exceedingly high risk.

3. *Strict Liability and Negligence*

While the theoretical roots of the risk-utility test are found in traditional negligence principles,¹⁵⁵ numerous courts have “attempted to avoid both the notion of fault implicit in negligence and the harshness of no-fault implicit in absolute liability.”¹⁵⁶ These efforts to develop a distinct theory of strict liability in tort for product-related harm continue to define the restless role negligence plays in strict products liability actions.

a. Risk-Utility Analysis With Knowledge of Dangers and Developments Imputed at the Time of Trial

For many courts, the distinction between the risk-utility test applied in a negligence case and the risk-utility test applied in a strict liability case is the character of knowledge attributed to the defendant. In a negligence action, the plaintiff must prove that the manufacturer acted unreasonably in designing the product, given what the manufacturer knew or should have known about the

¹⁵⁰ 842 P.2d 175 (Colo. 1992).

¹⁵¹ *Id.* at 185 n. 11.

¹⁵² *Kallio v. Ford Motor Co.*, 407 N.W.2d 92, 93 (Minn. 1987).

¹⁵³ *Id.*

¹⁵⁴ *Id.* at 97 n. 8. *See also* *Wilson v. Piper Aircraft Corp.*, 577 P.2d 1322, 1328 n.5 (Or. 1978).

¹⁵⁵ *See* *Prentis v. Yale Mfg. Co.*, 365 N.W.2d 176, 184 (Mich. 1984) (risk-utility test is based on Judge Hand’s formulation of the negligence standard in *United States v. Carroll Towing* 159 F.2d 169, 173 (2d Cir. 1947).

¹⁵⁶ *Prentis*, 365 N.W.2d at 185.

risks it posed.¹⁵⁷ In contrast, courts claiming to apply strict liability shift the focus of the analysis from the manufacturer designing the product to the product itself.¹⁵⁸ They accomplish this shift in focus by imputing to the manufacturer knowledge of all product risks, technological advances and uses as they are available at the time of trial.¹⁵⁹ The manufacturer will not, however, be held liable if, at the time the product was sold, the risks were scientifically unknowable.¹⁶⁰ The test then becomes whether a reasonable manufacturer with knowledge of scientifically ascertainable danger inherent in the product at the time it was sold, would nonetheless have marketed the product.¹⁶¹

By evaluating a product's condition at the time of trial, these latter courts burden the manufacturer with knowledge of the product's dangerous condition as a matter of law, obviating the need for a plaintiff to prove knowledge as a matter of fact.¹⁶² Therefore, the fact that the nature of a plaintiff's harm was

¹⁵⁷ See, e.g., Prentis, 365 N.W.2d at 184. See generally Prosser & Keeton On Torts § 96 at 688-89 (5th ed. 1984) (A product is negligently designed if "a reasonable person would conclude that the magnitude of the *reasonably foreseeable* harm as designed outweighed the utility of the product as so designed.") (emphasis added); Comment, *Foreseeability in Product Design and Duty to Warn Cases — Distinctions and Misconceptions*, 1968 WIS. L. REV. 228 (1968).

¹⁵⁸ See, e.g., Caterpillar Tractor Co. v. Beck, 624 P.2d 790, 794 (Alaska 1981); Dart v. Wiebe Mfg., Inc., 709 P.2d 876, 881 (Ariz. 1985); Barker v. Lull Eng'g Co., 573 P.2d 443, 457 (Cal. 1978); Aller v. Rodgers Mach. Mfg. Co., 268 N.W.2d 830, 835 (Iowa 1978).

The Arizona Supreme Court stated the difference as follows:

[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, 709 P.2d at 880.

¹⁵⁹ See, e.g., Jackson v. Firestone Tire & Rubber, Co., 788 F.2d 1070, 1084 (5th Cir. 1986) (applying Texas law); Kehm v. Proctor & Gamble Mfg. Co., 724 F.2d 613, 629-30 n.14 (8th Cir. 1983).

¹⁶⁰ See, e.g., Heritage v. Pioneer Brokerage & Sales, 604 P.2d 1059, 1064 (Alaska 1979).

¹⁶¹ See, e.g., Halphen v. Johns-Manville Sales Corp., 484 So. 2d 110 (La. 1986); Cepeda v. Cumberland Eng'g Co., 386 A.2d 816 (1978), *overturned on other grounds*, Suter v. San Angelo Foundry & Mach. Co., 406 A.2d 140 (N.J. 1978); Bolm v. Triumph Corp., 422 N.Y.S.2d 969 (N.Y. App. 1979); Phillips v. Kimwood Mach. Co., 525 P.2d 1033 (Or. 1974).

¹⁶² See, e.g., Dart v. Wiebe Mfg., Inc., 709 P.2d 876 (Ariz. 1985); Barker v. Lull Eng'g Co., 573 P.2d 443 (Cal. 1978); Phillips v. Kimwood Mach. Co., 525 P.2d 1033 (Or. 1974).

unforeseeable at the time of manufacture, while precluding recovery for negligent design, will not absolve the manufacturer of strict liability if, with the benefit of hindsight, the trier of fact determines that a reasonable manufacturer would have remedied the danger before the product was sold.¹⁶³ In two jurisdictions, courts have taken strict liability even further and have held that the manufacturer's knowledge is totally irrelevant to the issue of liability.¹⁶⁴

b. Risk-Utility Analysis With Knowledge at Time of Sale or Manufacture

In applying the risk-utility test for design defects, some courts focus on the product's condition at the time of sale or manufacture. These courts analyze such factors as the overall utility and other benefits of the product, and the cost and availability of safer alternative designs. They balance these against the inherent risks of which the product's manufacturer knew or should have known.¹⁶⁵ Courts hold a manufacturer responsible for the degree of knowledge and skill of an expert at the time of sale or manufacture.¹⁶⁶ Assessing a product's design in this manner necessarily involves analyzing the reasonableness of the manufacturer's conduct in designing and distributing the product. As such, the inquiry differs little from traditional negligence analysis.¹⁶⁷

¹⁶³ See *Voss v. Black & Decker Mfg. Co.*, 450 N.E.2d 204, 208 (N.Y. 1983). See also James A. Henderson, Jr., *Renewed Judicial Controversy Over Defective Product Design: Toward the Preservation of an Emerging Consensus*, 63 MINN. L. REV. 773, 777 (1978-1979); Wade, *Strict Tort Liability for Products*, *supra* note 79.

¹⁶⁴ See *Azzarello v. Black Brothers Co., Inc.*, 391 A.2d 1020, 1027 (Pa. 1978) (product can be found defective where it "left the supplier's control lacking any element necessary to make it safe for its intended use . . .") and *Beshada v. Johns-Manville Prods Corp.*, 447 A.2d 539 (N.J. 1982) (holding manufacturer strictly liable despite the fact that risks were scientifically unknowable at the time of sale or distribution). In New Jersey, *Beshada* has been limited to asbestos cases only. *Feldman v. Lederle Lab.*, 479 A.2d 374 (N.J. 1984). For criticism of this approach, see Henderson & Twersiki, *Closing the Frontier*, *supra* note 40; Birnbaum, *supra* note 11.

¹⁶⁵ See, e.g., *Reed v. Tiffin Motor Homes, Inc.*, 697 F.2d 1192, 1197 (4th Cir. 1982) (applying South Carolina law); *Heritage v. Pioneer Brokerage & Sales, Inc.*, 604 P.2d 1059 (Alaska 1979).

¹⁶⁶ See, e.g., *Karjala v. Johns-Manville Prods. Corp.*, 523 F.2d 155, 159 (8th Cir. 1975) (applying Minnesota law); *Borel v. Fiberboard Paper Prods. Corp.*, 493 F.2d 1076, 1089 (5th Cir. 1973) (applying Texas law), *cert. denied*, 419 U.S. 869 (1974).

¹⁶⁷ See, e.g., *Prentis v. Yale Mfg.*, 365 N.W.2d 176, 184 (Mich. 1984). See generally John W. Wade, *On the Effect in Product Liability of Knowledge Unavailable Prior to Marketing*, 58 N.Y.U. L. REV. 734 (1983).

The Michigan Supreme Court in *Prentis v. Yale Manufacturing Co.*,¹⁶⁸ openly acknowledged that design defect liability is essentially a matter of negligence. *Prentis* involved a claim against a forklift manufacturer for failure to equip the forklift with a seat or a platform for the operator's use.¹⁶⁹ In reviewing the claim, the court took the position that risk-utility analysis of a product's design always involves an assessment of the decisions made by the manufacturer in designing the product.¹⁷⁰ According to the *Prentis* court, the issue in a design defect case is whether the manufacturer "properly weighed the alternatives and evaluated the trade-offs and thereby developed a reasonably safe product."¹⁷¹ While the court noted that many courts distinguish between negligence and strict liability cases applying the risk-utility test on the basis of imputed knowledge, it concluded that "on a closer examination [the distinction] appears to be nothing more than semantics."¹⁷² Accordingly, the court adopted a pure negligence, risk-utility test for product liability actions predicated upon defective design.¹⁷³

C. REASONABLE CONSUMER EXPECTATIONS

Although many courts have expressly rejected the consumer expectations test in design defect cases,¹⁷⁴ a substantial number of courts continue to define "defective" in terms of whether the product meets the reasonable expectations of the consumer or user regarding its safety.¹⁷⁵ This test, also referred to in some jurisdictions as the ordinary consumer expectations test,¹⁷⁶ is at times

¹⁶⁸ 365 N.W.2d 176 (Mich. 1984).

¹⁶⁹ *Id.* at 179.

¹⁷⁰ *Id.* at 184.

¹⁷¹ *Id.* at 184 (quoting Aaron Twerski et al., *Shifting Perspectives in Products Liability: From Quality to Process Standards*, 55 N.Y.U. L. REV. 347, 359 (1980)).

¹⁷² *Id.* at 184.

¹⁷³ *Id.* at 186.

¹⁷⁴ *See, e.g.*, *Turner v. General Motors Corp.*, 584 S.W.2d 844, 851 (Tex. 1979); *Bilotta v. Kelley Co.*, 346 N.W.2d 616, 621 (Minn. 1984); *Prentis v. Yale Mfg.*, 365 N.W.2d 176, 184 (1984); *Camacho v. Honda Motor Co.*, 741 P.2d 1240 (Colo. 1987); *Sperry-New Holland v. Prestage*, 617 So. 2d 248 (Miss. 1993).

¹⁷⁵ *See, e.g.*, *Lester v. Magic Chef, Inc.*, 641 P.2d 353 (1982); *Rahmig v. Mosley Machinery Co.*, 412 N.W.2d 56 (Neb. 1987); *Ewen v. McLean Trucking Co.*, 706 P.2d 929 (Or. 1985); *Liberty Mutual Ins. Co. v. Sears, Roebuck & Co.*, 406 A.2d 1254 (Conn. 1979); *Taylor v. Gerry's Ridgewood, Inc.*, 490 N.E.2d 987 (Ill. App. 1986); *Aller v. Rodgers Mach. Mfg. Co.*, 268 N.W.2d 830 (Iowa 1978); *Bemis Co. v. Rubush*, 427 N.E.2d 1058 (Ind.), *cert denied*, 459 U.S. 825 (1981); *Seattle-First Nat. Bank v. Tabert*, 542 P.2d 774 (Wash. 1975).

¹⁷⁶ *See, e.g.*, *Liberty Mutual Ins. Co. v. Sears, Roebuck & Co.*, 406 A.2d 1254 (Conn. 1979).

held out as the sole test of liability,¹⁷⁷ or as an alternative to the risk-utility analysis.¹⁷⁸ While for some of these courts this test is the result of the definitions contained in the *Restatement (Second)*, Section 402A, comment i,¹⁷⁹ other courts apply it notwithstanding their rejection of Section 402A.¹⁸⁰

The seemingly wide acceptance of the reasonable consumer expectations formulation of the design defect standard obscures its actual importance in design defect cases. The manner in which courts apply this test limits its significance in two critical ways: (1) For most courts, the determination of whether the expectations of the consumer are reasonable depends upon some sort of balancing of the product's risk and utility and the feasibility of designing the product in a safer way;¹⁸¹ and (2) in many of the jurisdictions that retain the test as an independent determinant of design defectiveness, its application is limited to cases where the defect is simple and can be understood on the basis of common knowledge.¹⁸² Therefore, little, if any, substantive inconsistency exists between the new Restatement's risk-utility analysis test and the consumer expectations standard applied in these jurisdictions.

1. *Determining When Expectations are "Reasonable"*

Many courts that define defective design in terms of the reasonable expectations of the ordinary consumer weigh the product's risk and utility in determining the reasonableness of those expectations.¹⁸³ In announcing the proper test for these cases, the Supreme Court of Iowa in *Aller v. Rodgers*

¹⁷⁷ See, e.g., *Lester v. Magic Chef, Inc.*, 641 P.2d 353 (1982); *Rahmig v. Mosley Machinery Co.*, 412 N.W.2d 56 (Neb. 1987).

¹⁷⁸ See, e.g., *Shields v. Outboard Marine Corp.*, 776 F. Supp. 1579 (M.D. Ga. 1991) (applying Florida law); *Caterpillar Tractor Co. v. Beck*, 624 P.2d 790 (Alaska 1981); *Dart v. Wiebe Mfg., Inc.*, 709 P.2d 876 (Ariz. 1985); *Barker v. Lull Eng'g Co.*, 573 P.2d 443 (Cal. 1978); *Duke v. Gulf W. Mfg. Co.*, 660 S.W.2d 404 (Mo. App. 1983).

¹⁷⁹ See, e.g., *Bemis Co. v. Rubush*, 427 N.E.2d 1058 (Ind. 1981); *Lester v. Magic Chef, Inc.*, 641 P.2d 353 (Kan. 1982); *Nesselrode v. Executive Beechcraft, Inc.*, 707 S.W.2d 371 (Mo. 1986); *Rahmig v. Mosley Machinery Co.*, 412 N.W.2d 56 (Neb. 1987).

¹⁸⁰ See, e.g., *Caterpillar Tractor Co. v. Beck*, 624 P.2d 790 (Alaska 1981); *Barker v. Lull Eng'g Co.*, 573 P.2d 443 (Cal. 1978).

¹⁸¹ See *infra* notes 183-198 and accompanying text.

¹⁸² See *infra* notes 199-215 and accompanying text.

¹⁸³ See, e.g., *Seattle-First Nat'l Bank v. Tabert*, 542 P.2d 774 (Wash. 1975); *Aller v. Rodgers Mach. Mfg. Co.*, 268 N.W.2d 830, 834 (Iowa 1978); *Hebert v. Brazzel*, 403 So. 2d 1242 (La. 1981); *Fabian v. E.W. Bliss Co.*, 582 F.2d 1257 (10th Cir. 1978) (applying New Mexico law); *Lease v. International Harvester Co.*, 529 N.E.2d 57 (Ill. App. Ct. 1988); *Light v. Weldarc Co. Inc.*, 569 So. 2d 1302 (Fla. App. 1990).

Machinery Manufacturing Co.,¹⁸⁴ and the Florida Supreme Court in the similar case of *Radiation Technology, Inc., v. Ware Const. Co.*,¹⁸⁵ held that the issue of 'reasonableness' should be determined by weighing the probability and gravity of danger against the social utility of the product.¹⁸⁶ In *Aller*, the court noted that this process of balancing is the same as that conducted in negligence cases.¹⁸⁷

Thus, while the language is different, the substance of the tests adopted by these courts is identical to a risk-utility analysis. Indeed, some courts have explicitly recognized this point. The Washington Supreme Court in *Baughn v. Honda Motor Co.*¹⁸⁸ characterized the test as "a consumer expectations test with a risk-utility base,"¹⁸⁹ and the Oregon Supreme Court in *Phillips v. Kimwood Machine Co.*¹⁹⁰ explained the subtle connection as follows:

To elucidate this point further, we feel that *the two standards are the same* because a seller acting reasonably would be selling the same product which a reasonable consumer believes he is purchasing. That is to say, a manufacturer who would be negligent in marketing a given product, considering its risks, would necessarily be marketing a product which fell below the reasonable expectations of consumers who purchase it.¹⁹¹

Like the jurisdictions that expressly apply the risk-utility test, these courts consider evidence of a safer, cost-effective alternative design in determining whether reasonable consumer expectations have been met.¹⁹²

¹⁸⁴ 268 N.W.2d 830 (Iowa 1978).

¹⁸⁵ 445 So. 2d 329 (Fla. 1983).

¹⁸⁶ *Aller v. Rodgers Mach. Mfg. Co.*, 268 N.W.2d at 834-35 ("The article sold must be dangerous to an extent beyond that which would be expected by the ordinary consumer Proof of unreasonableness involves a balancing process. On one side of the scale is the utility of the product and on the other side is the risk of its use."); *Radiation Technology, Inc. v. Ware Constr. Co.*, 445 So. 2d at 331 ("The term 'unreasonably dangerous' more accurately depicts liability of a manufacturer or supplier in that it balances the likelihood and gravity of potential injury against the utility of the product").

¹⁸⁷ *Aller*, 268 N.W.2d at 835.

¹⁸⁸ 727 P.2d 655 (Wash. 1986).

¹⁸⁹ *Id.* at 660 ("While usually called a 'consumer expectations' test, the *Tabert* rule actually combines the consideration of consumer expectations with an analysis of the risk and utility inherent in the product's use.").

¹⁹⁰ 525 P.2d 1033 (Or. 1974).

¹⁹¹ *Id.* at 1037 (emphasis added). *But see* *Burns v. General Motors Corp.*, 891 P.2d 1354, 1357 (Or. Ct. App. 1995) (stating that "the distinction between the consumer expectation and reasonable manufacturer tests is not merely academic").

¹⁹² *See* *Radiation Technology*, 445 So. 2d at 331; *Aller*, 268 N.W.2d at 835; *Seattle-First*

Moreover, even courts that expressly reject use of the risk-utility test in evaluating design defects will in fact weigh the risk and utility inherent in the product to determine whether it is unreasonably dangerous. In *Sumnicht v. Toyota Motor Sales, U.S.A., Inc.*,¹⁹³ the Supreme Court of Wisconsin distinguished between the two alternative tests and concluded that “Wisconsin is committed to the consumer-contemplation test for determining whether a product is defective.”¹⁹⁴ The court nevertheless cited with approval another court’s list of five relevant factors which may be weighed as part of the test.¹⁹⁵ While the court characterized the factors as “clearly permissive,”¹⁹⁶ it went on to consider a number of them in affirming the judgment for plaintiff.¹⁹⁷ In summary, for many of the courts that apply the reasonable consumer expectations test, some kind of a risk-utility analysis is necessary to determine what a consumer can reasonably expect. In these jurisdictions, the tests “may be but two sides of the same coin.”¹⁹⁸

2. *Limitation to Simple and Obvious Defects*

A handful of jurisdictions retain consumer expectations and risk-utility as two distinct tests, but limit the application of the consumer expectations test to obvious design defects.¹⁹⁹ The approach taken by the California courts in *Soule v. General Motors Corp.*²⁰⁰ and *Lunghi v. Clark Equipment Co.*,²⁰¹ illustrates this functional division. In both cases the courts concluded that the consumer expectations test in design defect litigation, while an alternative

Nat’l Bank v. Tabert, 542 P.2d 774, 779 (Wash. 1975).

¹⁹³ 360 N.W.2d 2 (Wis. 1984).

¹⁹⁴ *Id.* at 15.

¹⁹⁵ *Id.* at 17. The five factors suggested in *Collins v. Ridge Tool Co.*, 520 F.2d 591, 594 (7th Cir. 1975), *cert. denied*, 424 U.S. 949 (1976), are (1) conformity of defendant’s design to the practices of other manufactures; (2) the open and obvious nature of the alleged danger; (3) the extent and length of time the product was used before the alleged injury occurred; (4) the manufacturer’s ability to cost-effectively eliminate the danger without impairing the product’s utility; and (5) the relative likelihood of injury.

¹⁹⁶ *Id.*

¹⁹⁷ *Id.* at 16-19.

¹⁹⁸ *Estate of Ryder v. Kelley-Springfield Tire Co.*, 587 P.2d 160, 164 (Wash. 1978).

¹⁹⁹ *See, e.g.*, *Dart v. Wiebe Mfg., Inc.*, 709 P.2d 876 (Ariz. 1985); *Soule v. General Motors Corp.*, 882 P.2d 298 (Cal. 1994); *Duke v. Gulf & Western Mfg. Co.*, 660 S.W.2d 404 (Mo. App. 1983).

²⁰⁰ 882 P.2d 298 (Cal. 1994).

²⁰¹ 200 Cal. Rptr. 387 (Cal. App. 1984).

means of analysis, is inappropriate whenever the issue of design defect goes beyond common knowledge and experience.²⁰²

Both *Soule* and *Lunghi* involved appellate review of the propriety of instructing the jury on the consumer expectations test, the former in an action for enhanced injuries suffered during an automobile accident, and the latter in a suit against the manufacturer of a Bobcat gravel loader.²⁰³ In *Lunghi*, the court held that in a design defect case the proper test depends on “whether the subject of inquiry is one of such common knowledge that [persons] of ordinary education could reach a conclusion as intelligently as” would an expert.²⁰⁴ The court concluded that the common knowledge and experience of the ordinary person does not include the capacity to evaluate a Bobcat operator’s expectations regarding the loader’s safety.²⁰⁵ The court affirmed the trial court’s decision to instruct the jury only on the risk-utility test.²⁰⁶

Several additional California Court of Appeals cases considered this point, and reached conflicting conclusions.²⁰⁷ Finally, the California Supreme Court settled the issue in *Soule*, and sided with the *Lunghi* court. The plaintiff in *Soule* claimed that the design of her car was defective in that it allowed its front wheel to break free during an accident, collapse rearward, and smash the floorboard into her feet.²⁰⁸ This theory of design defect involved considerations of technical and mechanical detail which were beyond the common experience of car owners.²⁰⁹ The court concluded that in such cases the product’s design had to be evaluated by weighing the design’s utility and benefits against its inherent risk of danger, including “the manufacturer’s evidence of competing design considerations.”²¹⁰ The court reserved the consumer expectations test “for cases in which the everyday experience of the

²⁰² *Soule*, 882 P.2d at 308; *Lunghi*, 200 Cal. Rptr. at 393.

²⁰³ *Soule*, 882 P.2d at 301; *Lunghi*, 200 Cal. Rptr. at 388.

²⁰⁴ *Lunghi*, 200 Cal. Rptr. at 393 (citing *People v. Cole*, 301 P.2d 854 (1956)).

²⁰⁵ *Id.*

²⁰⁶ *Id.* at 393.

²⁰⁷ For cases agreeing with *Lunghi*, see *Bates v. John Deere Co.*, 195 Cal. Rptr. 637, 645 (Cal. App. 1983) (“[w]e, too, find it difficult to apply the . . . [consumer expectations] test to these facts, in part because it is difficult to conceive that an ordinary consumer would know what to expect concerning the safety design of a commercial cotton picker”), and *Rosburg v. Minnesota Mining & Mfg. Co.*, 226 Cal. Rptr. 299, 304 (Cal. App. 1986) (breast implant performance is beyond common experience of ordinary people). For cases disagreeing with *Lunghi*, and applying the test regardless of the nature of the product, see *Akers v. Kelly Co.*, 219 Cal. Rptr. 513, 524 (Cal. App. 1985) (consumer expectations test appropriate where the accident involved a “dockboard,” a spring-loaded plate which attached to a loading dock) and *West v. Johnson & Johnson Prods., Inc.*, 220 Cal. Rptr. 437.

²⁰⁸ *Soule*, 882 P.2d at 301.

²⁰⁹ *Id.* at 310.

²¹⁰ *Id.* at 308.

product's users permits a conclusion that the product's design violated minimum safety assumptions."²¹¹

Likewise, the Arizona Supreme Court concluded that in a design defect case, the appropriate test depends on the nature of the defect which caused the injury.²¹² While the court held that design defect cases should be resolved, whenever possible, upon the consumer expectations test, it acknowledged that the test is inherently limited to claims involving defects which are within the common experiences of individuals.²¹³ Where the consumer would not know what to expect, the court adopted the risk-utility test together with Dean Wade's seven factors.²¹⁴ These courts recognized the limitations of the consumer expectations test in a technologically advanced society: "In many situations . . . the consumer would not know what to expect, because he would have no idea how safe the product could be made."²¹⁵

3. *Pure Consumer Expectations*

A few jurisdictions have taken the consumer expectations standard of defectiveness at its word and have concluded that the only relevant inquiry is whether the product is dangerous beyond the expectations of an ordinary consumer.²¹⁶ In *Lester v. Magic Chef*,²¹⁷ and *Rahmig v. Mosley Machinery Co.*,²¹⁸ Kansas and Nebraska courts, respectively, rejected the concept that design defectiveness depends on the relative weights of the product's risk and its utility. In *Lester*, the court upheld the trial judge's refusal to give the jury the risk-utility test instruction requested by the plaintiff, and it approved a consumer expectation test instruction modeled after Section 402A, comment i.²¹⁹

²¹¹ *Id.*

²¹² *Dart v. Wiebe Mfg., Inc.*, 709 P.2d 879 (Ariz. 1985).

²¹³ *Id.* at 878.

²¹⁴ *Id.* at 879-80.

²¹⁵ *Barker v. Lull Engineering Co., Inc.*, 573 P.2d 443, 454 (Cal 1978) (quoting Wade, *Strict Tort Liability for Products*, *supra* note 79 at 829).

²¹⁶ *See Lester v. Magic Chef, Inc.*, 641 P.2d 353 (Kan. 1982); *Rahmig v. Mosley Mach. Co.*, 412 N.W.2d 56 (Neb. 1987). *See also* UTAH CODE ANN. § 78-15-6(2) (1992)(incorporating consumer expectations test).

²¹⁷ 641 P.2d 353 (Kan. 1982). *See also* Donna Fowler, Comment, *Products Liability: Kansas Adopts the Consumer Expectations Test to Define "Unreasonably Dangerous" in Design Defect Cases*, 22 WASHBURN L. J. 397 (1983).

²¹⁸ 412 N.W.2d 56 (Neb. 1987).

²¹⁹ *Lester*, 641 P.2d at 361 (trial judge instructed jury that a product is unreasonably dangerous if it is dangerous beyond the expectations of an ordinary consumer with knowledge common to the community regarding the product's characteristics). *See also Wheeler v. John Deere Co.*, 862 F.2d 1404 (10th Cir. 1988) (reaffirming *Lester*).

Likewise, the Nebraska Supreme Court has concluded that in a design defect case "Nebraska still adheres to the user-contemplation test generally reflected in [Section 402A] and has not . . . adopted the risk-utility test."²²⁰ The court stressed that the plaintiff is not required to present evidence of a safer alternative design as part of his design defect claim.²²¹ As a practical matter, however, plaintiffs in both cases presented evidence of a safer feasible alternative design in support of their claims.²²² This approach has been heavily criticized and it represents only a small minority position.

D. THE *BARKER* TWO-PRONG APPROACH

In *Barker v. Lull Engineering Co., Inc.*,²²³ the California Supreme Court combined the risk-utility test and the consumer expectations test to produce a hybrid two-prong test for determining design defects. Under the first prong, a product may be found defective in design if the plaintiff demonstrates that the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner. Under the second prong, a product may be found defective if the plaintiff proves that its design proximately caused his injury and the defendant fails to prove that, on balance, the benefits of the challenged design outweigh its inherent risk of danger.²²⁴ While California recently limited the application of the first prong of the *Barker* analysis,²²⁵ the original formulation of the test has been adopted and applied in Alaska²²⁶ and Hawaii.²²⁷

The *Barker* test allows the trier of fact to find a product defective in design under either the consumer expectations test or the risk-utility test. Thus, a product may be found defective under the consumer expectations prong even though it is found not to be defective under the risk-utility test.²²⁸ Likewise, a product may be defective in design, even if it satisfies the expectations of the ordinary consumer, if the defendant fails to show that, on balance,

²²⁰ Rahmig, 412 N.W.2d at 78. See also *Adams v. American Cyanamid*, 498 N.W. 2d 579.

²²¹ Rahmig, 412 N.W. 2d at 82, *overruling* *Nerud v. Haybuster Mfg.*, 340 N.W.2d 869 (Neb. 1983).

²²² Lester, 641 P.2d at 354; Rhamig, 412 N.W.2d at 65.

²²³ 573 P.2d 443 (Cal. 1978).

²²⁴ *Id.* at 457-58.

²²⁵ *Soule v. General Motors Corp.*, 882 P.2d 298 (Cal. 1994).

²²⁶ See, e.g., *Caterpillar Tractor Co., v. Beck*, 593 P.2d 871 (Alaska 1979), appeal after remand 624 P.2d 790 (1981).

²²⁷ See, e.g., *Ontai v. Straub Clinic & Hosp. Inc.*, 659 P.2d 743 (Haw. 1983).

²²⁸ See, e.g., *Curtis v. State*, 180 Cal. Rptr. 843 (Cal. App. 1982).

the benefits of the challenged design outweighed its inherent risks.²²⁹ This second path to liability protects consumers in situations where the obvious nature of the danger renders the product's performance in conformity with the ordinary consumer's expectations, but its design nevertheless subjects the user to "excessive preventable harm."²³⁰ Where the defect goes beyond the common experience and knowledge of consumers, however, the consumer expectations test may not be available, and the design will be evaluated under the risk-utility test.²³¹

While the alternative prongs are based on the commonly applied versions of the risk-utility and consumer expectations tests, they depart from their traditional formulations in two significant ways. First, the court distinguished its formulation of the risk-utility prong by shifting the burden of proof from the plaintiff to the manufacturer. Under this approach, if the plaintiff establishes that his injuries were proximately caused by the product's design, the manufacturer must establish that the product's benefits outweighed the risks of danger inherent in its design.²³² To aid in this analysis, the court in *Barker* suggested a set of factors the trier of fact may consider in determining whether the manufacturer satisfied his burden of proof.²³³ While this approach does not require the plaintiff to offer evidence of the availability of a feasible and practical alternative design as part of his claim, the majority of plaintiffs introduce such evidence as a practical matter to establish proximate causation.²³⁴

Second, although the *Barker* court relied on Section 402A in formulating its version of the consumer expectations test, it expressly rejected the require-

²²⁹ See, e.g., *Campbell v. General Motors Corp.*, 649 P.2d 224 (Cal. 1982).

²³⁰ *Barker v. Lull Eng. Co., Inc.*, 573 P.2d at 454.

²³¹ See, e.g., *Soule v. General Motors Corp.*, 882 P.2d at 308.

²³² *Barker v. Lull Eng. Co., Inc.*, 573 P.2d at 443. The rationale given by the court for this approach is that one of the principal purposes behind strict liability is to relieve the plaintiff of many of the "onerous evidentiary burdens inherent in a negligence cause of action." *Id.* at 455.

²³³ The list suggested by the *Barker* court is based on the Wade factors. The factors suggested by the court are: "the gravity of the danger posed by the challenged design, the likelihood that such danger would occur, the mechanical feasibility of a safer alternative design, the financial cost of as improved design, and the adverse consequences to the product and to the consumer that would result from an alternative design." *Id.* at 455

²³⁴ The cases suggest that plaintiffs try to prove proximate cause by introducing evidence which tends to show that adopting a different design would have avoided or reduced the risk of harm. See, e.g., *Id.* at 447 (plaintiff's expert testified that "the loader should have been equipped with 'outriggers'" to increase stability); *Bernal v. Richard Wolf Med. Inst. Corp.*, 272 Cal. Rptr. 41 (Cal. App. 1990) (presenting testimony that surgical scissors used in knee surgery were subject to "stress corrosion" cracking and that a reasonable alternative design was possible); *Arthur v. Avon Inflatables, Ltd.*, 302 Cal. Rptr 1 (Cal. App. 1984) (plaintiff presented evidence of how a life raft could have been equipped).

ment that plaintiff prove that the product was “unreasonably dangerous.”²³⁵ Under the Barker formulation, the plaintiff only needs to prove that he used the product in an intended or reasonably foreseeable way, and that the product failed to perform safely.²³⁶ The proponents of this hybrid approach argue that it combines the most workable features of the two tests, while at the same time disposing with their more cumbersome and doctrinally inconsistent aspects.²³⁷

E. REASONABLY PRUDENT MANUFACTURER TEST

The test as to whether a product is defective in design is frequently stated in terms of whether the manufacturer’s decisions in designing the product were reached in a reasonably prudent manner. This approach is often referred to as the “reasonably prudent manufacturer test.”²³⁸ Although it is not labeled a risk-utility test, a determination as to whether the manufacturer acted reasonably necessarily involves a balancing of the product’s risks against its benefits or utility.²³⁹ In fact, most jurisdictions applying this formulation require evidence of the availability of a reasonable, practical alternative design at the time of manufacture before they will impose liability.²⁴⁰ The test then becomes whether “an ordinarily prudent company . . . being fully aware of the risk, would not have put [the product] on the market.”²⁴¹

In evaluating a product’s design based on the reasonably prudent manufacturer standard, these courts condition liability upon concepts of responsibility and fault.²⁴² Nonetheless, some courts label their analysis as one of strict liability and differentiate it from negligence by imputing to the manufacturer the information about the product’s dangers which is available at the time of trial.²⁴³ These courts shift the focus of the trier of fact’s inquiry

²³⁵ *Barker v. Lull Eng. Co., Inc.*, 573 P.2d at 451. *See also* *Ontai v. Straub Clinic & Hosp. Inc.*, 659 P.2d 734, 739 (Haw. 1983).

²³⁶ *See, e.g.*, *Caterpillar*, 593 P.2d at 885.

²³⁷ M. STEWART MADDEN, *PRODUCTS LIABILITY* § 6.10 (2d ed. 1988).

²³⁸ *See, e.g.*, *Nichols v. Union Underwear Co., Inc.*, 602 S.W.2d 429 (Ky. 1980); *Church v. Wesson*, 385 S.E.2d 393 (W. Va. 1989). This approach is most often associated with Deans Wade and Keeton. W. Page Keeton, *Product Liability and the Meaning of the Defect*, 5 ST. MARY’S L.J. 30, 38 (1973); Wade, *Strict Liability for Products*, *supra* note 79.

²³⁹ *See, e.g.*, *Leathem v. Moore*, 265 So.2d 270 (La. App. 1972); *Volkswagen of America, Inc. v. Young*, 321 A.2d 737 (Md. 1972).

²⁴⁰ *See, e.g.*, *Peppin v. W.H. Brady Co.*, 372 N.W.2d 369 (Minn. App. 1985).

²⁴¹ *Nichols v. Union Underwear Co., Inc.*, 602 S.W.2d 429, 433 (Ky. 1980).

²⁴² *See, e.g.*, *Prentis v. Yale Mfg. Co.*, 365 N.W.2d 176 (Mich. 1984). *See generally*, Wade, *Strict Liability for Products*, *supra* note 79.

²⁴³ *See, e.g., id.* *See generally, supra* notes 157-164, and accompanying text.

from the manufacturer's conduct onto the product, by burdening the manufacturer with what amounts to constructive knowledge of the dangerous condition.²⁴⁴ In design defect cases, however, this approach remains fundamentally equivalent to pure negligence analysis.²⁴⁵

III

RESTATEMENT (THIRD): RESTATEMENT OR REFORM?

This part of the Note analyzes the extent to which the design defect standard contained in the *Restatement (Third) of Torts: Products Liability* accurately reflects the law of the fifty states. Historically, design defect litigation has been best characterized by numerous cases and articles that have reached conflicting results.²⁴⁶ In recent years, however, the law has reached a surprising national consensus regarding the way in which the vast majority of states treat such problems.²⁴⁷ After decades of expanding the legal rights of the consumer *vis à vis* the manufacturer and retailer, judicial and legislative attitudes regarding design defect liability finally shifted toward a more balanced approach.²⁴⁸ A consideration of these issues, as well as an evaluation of the states' approaches to design defects reveals that the functional approach proposed by the Reporters is an appropriate standard of liability to be applied to manufacturers' design choices.

A. CRITICISM OF THE PROPOSED APPROACH

The debate over the accuracy and pro-business tendencies of the new Restatement's design defect section began even before the Reporters com-

²⁴⁴ Phillips v. Kimwood Mach. Co., 525 P.2d 1033 (Or. 1974).

²⁴⁵ See, e.g., Wade, *Strict Liability for Products*, *supra* note 79; Birnbaum, *supra* note 11, at 618-22 (evaluating the prudent manufacturer test and concluding that it is "substantially coordinate with liability on negligence principles").

²⁴⁶ E.g., compare Prentis v. Yale Mfg., 365 N.W.2d 176, 186 (1984) (adopts a pure negligence, risk-utility test in products liability actions predicated upon defective design) with *Beacon Bowl v. Wisconsin Elec. Power*, 501 N.W.2d 788, 908 (Wis. 1993) (whether a product is defectively designed depends upon the reasonable expectations of the ordinary consumer); and compare Birnbaum, *supra* note 11 with Shapo, *A Representational Theory of Consumer Protection: Doctrine, Function, and Legal Liability for Product Disappointment*, 60 VA. L. REV. 1109 (1974).

²⁴⁷ See James A. Henderson, Jr. & Theodore Eisenberg, *The Quiet Revolution in Products Liability: An Empirical Study of Legal Change*, 37 UCLA L. REV. 479 (1990).

²⁴⁸ See, e.g., Henderson & Twerski, *Closing the Frontier*, *supra* note 40, at 1315. See also Theodore Eisenberg & James A. Henderson, Jr., *Inside the Quiet Revolution in Products Liability*, 39 UCLA L. REV. 731 (1992); James A. Henderson, Jr., & Theodore Eisenberg, *The Quiet Revolution in Products Liability: An Empirical Study of Legal Change*, 37 UCLA L. REV. 479 (1990).

menced their task. When the Reporters were appointed, a proposed revision of Section 402A by professors Henderson and Twerski²⁴⁹ and their other pro works immediately raised concerns about the objectivity of the new Restatement.²⁵⁰ The criticism intensified after the Reporters published "Preliminary Draft No. 1" on April 20, 1993,²⁵¹ and again increased after the publication of "Tentative Draft No. 1."²⁵²

The debate surrounding the new Restatement, while centering on the accuracy of the proposed test for design defects, concerned two distinct issues. Foremost, critics argued that the rejection of the consumer expectation test as an independent determinant of design fitness is inconsistent with current law. The risk-utility balancing test, critics contended, was the law in a minority of jurisdictions.²⁵³ Moreover, some of the commentators and practitioners who agreed with the test in principle disagreed as to the propriety of requiring plaintiffs to show that a reasonable alternative design would have reduced the overall risk of injury.²⁵⁴

The second point of contention was the Reporters' express acknowledgment that defective design liability is predicated on negligence principles. Although comment a to Section One states that the liability for each form of

²⁴⁹ James A. Henderson, Jr. & Aaron D. Twerski, *A Proposed Revision supra* note 8.

²⁵⁰ See James A. Henderson Jr., *Revising Section 402A: The Limits of Tort as Social Insurance*, 10 *TOURO L. REV.* 107, 111-12 (1993) ("For years I had written what was widely viewed, and I think fairly viewed, as pro-defendant material.") See, e.g., James A. Henderson Jr., *Product Liability and the Passage of Time: The Imprisonment of Corporate Reality*, 58 *N.Y.U. L. REV.* 765, 766 (1983) ("[e]xposing manufacturer's to product liability may be counterproductive..."); James A. Henderson Jr., *Renewed Judicial Controversy Over Defective Product Design: Toward the Preservation of an Emerging Consensus*, 63 *MINN. L. REV.* 773 (1978-79); see also *Already on the Record*, *LEGAL TIMES*, June 8, 1992, at 3 (reporting allegations that Professors Henderson and Twerski are pro-business in philosophy and are financially backed by business concerns).

²⁵¹ *Restatement (Third) of Torts: Products Liability* (Prelim. Draft No. 1, Apr. 20, 1993). For criticism of the preliminary draft, see Roland F. Banks & Margaret O'Connor, *Restating the Restatement (Second), Section 402A — Design Defect*, 72 *OREGON L. REV.* 411 (1993).

²⁵² See *RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY* (Preliminary Draft No. 1, 1993).

²⁵³ See, e.g., Frank J. Vandall, *The Restatement (Third) of Torts, Products Liability, Section 2(B): Design Defect*, 68 *TEMP. L. REV.* 167 (1995) (arguing that a majority of jurisdictions do not support the risk-utility test in design defect cases); Roland F. Banks & Margaret O'Connor, *Restating the Restatement (Second), Section 402A - Design Defect*, 72 *OR. L. REV.* 411 (1993) (arguing that consumer expectations is the majority approach).

²⁵⁴ See, e.g., Frank J. Vandall, *The Restatement (Third) of Torts: Products Liability Section 2(b): The Reasonable Alternative Design Requirement*, 61 *TENN. L. REV.* 1407 (1994) (arguing that the reasonable alternative design requirement is not supported by modern case law); Larry S. Stewart, *Plaintiffs Bar Questions Products Liability Restatement*, *NAT'L L.J.* (Aug. 1, 1994); *ALI Hesitates on Lawyer Liability, Products Liability Restatement Efforts*, 62 *U.S.L.W.* 2734 (May 31, 1994).

defect is defined in functional terms, critics charged that reintroducing negligence into products liability would erode consumers' rights.²⁵⁵ Plaintiffs' attorneys were worried that the Reporters would set out to reform the law and would significantly curb, if not reverse, the expansion of consumers' rights experienced in recent decades.²⁵⁶

Despite the intensity of the criticism, only one study purports at present to analyze the law of the states to discern the majority approach to defective design liability. Subsequent to the Reporters' publication of "Preliminary Draft No. 1" of the new Restatement, attorneys Roland F. Banks and Margaret O'Connor published a study in which they conclude that "[a] large majority of cases which have addressed this issue have held that a design defect is to be determined by the consumer expectations test of Section 402A."²⁵⁷ The study looked at a total of thirty-eight states, and concluded that nineteen of them follow the consumers expectation test.²⁵⁸ The study concluded that a risk-utility balancing test is accepted only in seven states,²⁵⁹ and that ten states recognize both tests.²⁶⁰ Two states were categorized as miscellaneous.²⁶¹

While Banks and O'Connor noted that "[m]ost courts also seem to view negligence as a necessary ingredient in determining if a particular product design is acceptable,"²⁶² they concluded that negligence concepts "have never been by themselves liability rules, and the courts have not treated them as such."²⁶³ Banks and O'Connor concluded the study by proposing their own strict liability standard for defective design, which attempts to assimilate their

²⁵⁵ Larry S. Stewart, *Plaintiffs Bar Questions Products Liability Restatement*, NAT'L L.J. (Aug. 1 1994).

²⁵⁶ *ALI Hesitates on Lawyer Liability, Products Liability Restatement Efforts*, 62 U.S.L.W. 2734 (May 31, 1994).

²⁵⁷ Banks & O'Connor, *supra* note 3, at 415.

²⁵⁸ Alabama, Arkansas, Connecticut, District of Columbia, Idaho, Indiana, Kansas, Maryland, Nebraska, Nevada, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, and Wisconsin. *Id.* at 415-416.

²⁵⁹ Colorado, Louisiana, Maine, Mississippi, New Hampshire, New Jersey, and New Mexico. *Id.*

²⁶⁰ Alaska, Arizona, California, Florida, Hawaii, Illinois, Iowa, New York, Ohio, and Washington. *Id.*

²⁶¹ Minnesota and North Carolina. *Id.*

²⁶² *Id.* at 420.

²⁶³ *Id.* at 417.

conclusions.²⁶⁴ This Note suggests that those conclusions were based on a merely superficial examination of the law of the states.

B. EVALUATING CASE LAW SUPPORT FOR THE PROPOSED APPROACH

The new Restatement's standard for design defect liability should, if possible, be a restatement of the approaches to this issue adopted by the various jurisdictions. This part of the Note summarizes the approaches taken by the fifty states and concludes that the design defect standard of the new Restatement does, indeed, meet this criterion.

1. *Risk-Utility v. Consumer Expectations*

The new Restatement establishes risk-utility balancing as the governing standard for liability in design defect cases, and it imposes upon the plaintiff the burden of showing that the adoption of a reasonable alternative design would have eliminated or reduced the harm.²⁶⁵ Where the product's design causes it to fail its intended function and the defect is obvious, the new Restatement allows the plaintiff to take advantage of an inference of defect, thereby arguing that the product failed to perform as safely as an ordinary consumer would expect.²⁶⁶ This approach is in agreement with the state of existing case law. A majority of states have held that the issue of design defectiveness is to be determined, in most instances, on the basis of risk-utility or cost-benefit analysis. Courts in Alabama,²⁶⁷ Arizona,²⁶⁸ California,²⁶⁹

²⁶⁴ Banks and O'Connor suggest that design defect liability be imposed

. . . if the condition in the product which caused the harm would not have been contemplated by the ordinary person who would be expected to use or consume the product, and a reasonably prudent seller of like products, knowing the risk of harm involved, would not have marketed the product under the circumstances existing at the time.

Id. at 418.

²⁶⁵ See Tentative Draft No. 2, § 2(b).

²⁶⁶ See *supra* Part I.B.

²⁶⁷ See, e.g., *Townsend v. General Motors Corp.*, 642 So. 2d 411, 418 (Ala. 1994); *Casrell v. Altec Indus.*, 335 So. 2d 128 (Ala. 1976).

²⁶⁸ See, e.g., *Dart v. Wiebe Mfg. Inc.*, 709 P.2d 876, 879 (Ariz. 1985).

²⁶⁹ See, e.g., *Soule v. General Motors Corp.*, 882 P.2d 298, 308 (Cal. 1994).

Colorado,²⁷⁰ Delaware,²⁷¹ the District of Columbia,²⁷² Florida,²⁷³ Georgia,²⁷⁴ Idaho,²⁷⁵ Illinois,²⁷⁶ Indiana,²⁷⁷ Kentucky,²⁷⁸ Louisiana,²⁷⁹ Maine,²⁸⁰ Maryland,²⁸¹ Massachusetts,²⁸² Michigan,²⁸³ Minnesota,²⁸⁴ Mississippi,²⁸⁵ Montana,²⁸⁶ New Hampshire,²⁸⁷ New Jersey,²⁸⁸ New Mexico,²⁸⁹ New York,²⁹⁰

²⁷⁰ *See, e.g.*, *Bond v. E.I. Du Pont de Nemours & Co.*, 686 P.2d 1114, 1118 (Colo. Ct. App. 1993); and *White v. Caterpillar, Inc.*, 867 P.2d 100, 105 (Colo. Ct. App. 1993).

²⁷¹ *See, e.g.*, *Nacci v. Volkswagen of America, Inc.*, 325 A.2d 617 (Del. Super. Ct. 1974).

²⁷² *See, e.g.*, *Hull v. Eaton*, 825 F.2d 448, 454 (D.C. Cir. 1987)(Stating that “the District of Columbia would follow the risk-utility balancing test referred to by the Maryland courts.”).

²⁷³ *See, e.g.*, *Radiation Technology, Inc. v. Ware Const. Co.*, 445 So. 2d 329, 331 (Fla. 1983).

²⁷⁴ *See, e.g.*, *Banks v. I.C.I. Americas, Inc.*, 1994 WL 677536 at 1 (Ga. 1994).

²⁷⁵ *See, e.g.*, *Toner v. Lederle Lab.*, 732 P.2d 297, 307 (Idaho 1987).

²⁷⁶ *See, e.g.*, *Lamkin v. Towner*, 563 N.E.2d 449, 457-58 (Ill. 1990); and *Lease v. International Harvester Co.*, 529 N.E.2d 57 (Ill. App. Ct. 1988).

²⁷⁷ *See, e.g.*, *Pries v. Honda Motor Co.*, 31 F.3d 543, 546 (7th Cir. 1994) (noting that in design cases “Indiana requires the plaintiff to show that another design not only could have prevented the injury but also was cost-effective under general negligence principles.”).

²⁷⁸ *See, e.g.*, *Nichols v. Union Underware Co.*, 602 S.W.2d 429, 433 (Ky. 1980) (the court proposed the following jury instruction: “You will find for the plaintiff only if you are satisfied from the evidence that the material of which the T-shirt was made created such a risk of its being accidentally set on fire by a child wearing it that an ordinarily prudent company engaged in the manufacture of clothing, being fully aware of the risk, would not have put it on the market; otherwise, you will find for the defendant.”).

²⁷⁹ *See* LA. REV. STAT. ANN. § 2800.56.

²⁸⁰ *See, e.g.*, *St. Germain v. Husqvarna Corp.*, 544 A.2d 1283, 1286 (Me. 1988).

²⁸¹ *See, e.g.*, *Ziegler v. Kawasaki Heavy Indus. Ltd.*, 539 A.2d 701, 704-705 (Md. App. 1988) (“[I]n a design defect case, § 402A requires ‘a weighing of the utility of risk inherent in the design against the magnitude of the risk.’”) (quoting *Phipps v. General Motors Corp.*, 363 A.2d 955 (Md. 1976).

²⁸² Massachusetts does not recognize strict liability in tort, but the implied warranties of Massachusetts’ version of the U.C.C. provide a remedy which is “congruent in nearly all respects” with strict liability. *Back v. Wickes*, 378 N.E.2d 964, 969 (Mass. 1978). *See, e.g.*, *Kotler v. American Tobacco Co.*, 926 F.2d 1217 (1st Cir. 1990) (applying Massachusetts’ version of the U.C.C. law).

²⁸³ *See, e.g.*, *Prentis v. Yale Mfg. Co.*, 365 N.W.2d 176, 186 (Mich. 1984).

²⁸⁴ *See, e.g.*, *Kallio v. Ford Motor Co.*, 407 N.W.2d 92, 96 (Minn. 1987); *Holm v. Sponco Mfg.*, 324 N.W.2d 207, 212-213 (Minn. 1982).

²⁸⁵ *See, e.g.*, MISS. CODE ANN. § 11-1-63 (1993); and *Sperry-New Holland v. Prestage*, 617 So.2d 248, 253 (Miss. 1993).

²⁸⁶ *See, e.g.*, *Rix v. General Motors Corp.*, 723 P.2d 195, 202 (Mont. 1986); and *Krueger v. General Motors Corp.*, 783 P.2d 1340, 1345 (Mont. 1989).

²⁸⁷ *See, e.g.*, *Thibault v. Sears, Roebuck & Co.*, 395 A.2d 843, 846 (N.H. 1978).

²⁸⁸ *See, e.g.*, N.J. STAT. ANN. § 2A:58C-3-a(1) (West 1987); and *Smith v. Keller Ladder*

North Carolina,²⁹¹ Pennsylvania,²⁹² Rhode Island,²⁹³ South Carolina,²⁹⁴ Texas,²⁹⁵ Utah,²⁹⁶ Washington²⁹⁷ and Wyoming²⁹⁸ follow this rule. In several of these jurisdictions, if the defect is obvious and falls within the common experience of product users, defectiveness of the product's design can be determined based upon consumer expectations.²⁹⁹

The only serious alternative to such an approach is application of the consumer expectations test regardless of the nature of the design defect. Based on the author's review of the case law, this Note concludes that the courts in a majority of states which apply the consumer expectations test actually use a risk-utility analysis to determine what reasonable expectations

Co., 645 A.2d 1269 (N.J. Super 1994).

²⁸⁹ See, e.g., Supreme Court Rules Annotated, Uniform Civil Jury Instructions, 13-1407 (1986); Skyhook Corp. v. Jasper, 560 P.2d 934, 938 (N.M. 1977).

²⁹⁰ See, e.g., Voss v. Black & Decker, 450 N.E.2d 204, 208 (N.Y. 1983); Garcia v. Rivera, 553 N.Y.S.2d 378, 380 (N.Y. App. Div. 1990).

²⁹¹ North Carolina does not recognize strict liability in tort. See, e.g., McCollum v. Grove Mfg. Co., 293 S.E.2d 632, 638 (N.C. App. 1982) (The Court noted that "[i]n products liability cases, the duty of the manufacturer must be determined by the principles of negligence."), *aff'd*, 300 S.E.2d 374 (1983).

²⁹² See, e.g., Azzarello v. Black Brothers Co., 391 A.2d 1020, 1026 (Pa. 1978).

²⁹³ See, e.g., Castrignano v. E.R. Squibb & Sons, Inc., 546 A.2d 775, 781 (R.I. 1988).

²⁹⁴ See, e.g., Claytor v. Genral Motors Corp., 286 S.E.2d 129, 132 (S.C. 1982).

²⁹⁵ See, e.g., Turner v. General Motors Corp., 584 S.W.2d 844, 847 (Tex. 1979).

²⁹⁶ See, e.g., UTAH CODE ANN. §78-15-6(2) (1992).

²⁹⁷ See, e.g., Seattle-First Nat'l ank v. Tabert, 542 P.2d 774, 779 (Wash. 1975).

²⁹⁸ See, e.g., Sims v. General Motors Corp., 751 P.2d 357 (Wyo. 1988).

²⁹⁹ See, e.g., Dart v. Wiebe Mfg, Inc., 709 P.2d 876, 878 (Ariz. 1985) (design defectiveness evaluated using a risk-utility analysis where the nature of the defect is beyond the expectations of the ordinary consumer because he would have no idea how safe the product could be made); Soule v. General Motors Corp., 882 P.2d 298, 308 (Cal. 1994) (holding consumer expectations prong inapplicable in cases where "the issue of design defect goes beyond the common experience of the product's users.").

are.³⁰⁰ Thus, in Iowa,³⁰¹ New York,³⁰² Oregon,³⁰³ and Washington,³⁰⁴ risk-utility analysis and consumer expectations are one and the same.

Overall, thirty-one states support the position of the new Restatement, whereas only Arkansas,³⁰⁵ Connecticut,³⁰⁶ Kansas,³⁰⁷ Nebraska,³⁰⁸ Nevada,³⁰⁹ North Dakota,³¹⁰ Oklahoma,³¹¹ South Dakota,³¹² Tennessee,³¹³ Vermont,³¹⁴ and Wisconsin³¹⁵ apply consumer expectations without weighing the prod-

³⁰⁰ See notes 193-198, and accompanying text.

³⁰¹ See, e.g., *Aller v. Rodgers Mach. Mfg. Co., Inc.*, 268 N.W.2d 830, 834-35 (Iowa 1978).

³⁰² See, e.g., *Voss v. Black & Decker*, 450 N.E.2d 204, 208 (N.Y. 1983) ("We have held that a defectively designed product is one which...is in a condition not reasonably contemplated by the ultimate consumer and is unreasonably dangerous for its intended use; that is one whose utility does not outweigh the danger inherent in introduction onto the stream of commerce.").

³⁰³ See note 190, and accompanying text.

³⁰⁴ See, e.g. *Estate of Ryder v. Kelly-Springfield Tire Co.*, 587 P.2d 160, 164 (Wash. 1979) (stating that risk-utility and consumer expectations are "but two sides of the same coin").

³⁰⁵ See, e.g., ARK. CODE ANN. § 16-116-102(7). See also *Berkeley v. Reed-Joseph Land Co.*, 653 S.W.2d 128 (Ark. 1983); and *French v. Grove Mfg. Co.*, 656 F.2d 295 (8th Cir. 1982) (applying Arkansas law).

³⁰⁶ See, e.g., *Giglio v. Connecticut Light & Power Co.*, 429 A.2d 486, 488 (Conn. 1980); and *Slepski v. Williams Ford, Inc.*, 364 A.2d 175, 178 (Conn. 1975).

³⁰⁷ See, e.g., *Lester v. Magic Chef*, 641 P.2d 353, 357 (Kan. 1982). See generally Donna Fowler, Comment, *Products Liability: Kansas Adopts the Consumer Expectations Test to Define "Unreasonably Dangerous" in Design Defect Cases*, 22 WASHBURN L.J. 397 (1983).

³⁰⁸ See, e.g., *Rahmig v. Mosley Mach. Co.*, 412 N.W.2d 56, 78 (Neb. 1987).

³⁰⁹ See, e.g., *Ward v. Ford Motor Co.*, 657 P.2d 95 (1983).

³¹⁰ See, e.g., N.D. CENT. CODE §28-01.1-05(2) (1991).

³¹¹ See, e.g., *Kirkland v. General Motors Corp.*, 521 P.2d 1353, 1362-63 (Okla. 1973). See generally V. LAWRENCE-MACDOUGAL, *PRODUCTS LIABILITY LAW IN OKLAHOMA* 12 (1990) (classifying Oklahoma as a "pure Restatement jurisdiction").

³¹² See, e.g., *Engberg v. Ford Motor Co.*, 205 N.W.2d 104 (S.D. 1973).

³¹³ See, e.g., *Gann v. International Harvester Co.*, 712 S.W.2d 100, 105 (Tenn. 1986) (rejecting the risk-utility and reasonably prudent manufacturer tests).

³¹⁴ See, e.g., *Farnham v. Bombardier, Inc.*, 640 A.2d 47, 48 (Vt. 1994) (quoting Section 402, comment i).

³¹⁵ See, e.g., *Sumnicht v. Toyota Motor Sales, U.S.A., Inc.*, 30 N.W.2d 2, 15 (Wis. 1984) (The court concluded that "Wisconsin is committed to the consumer-contemplation test for determining whether a product is defective.").

uct's risks and utilities. Courts in Alaska,³¹⁶ Hawaii,³¹⁷ and Ohio³¹⁸ recognize both risk-utility and consumer expectations as alternative tests.

2. Reasonable Alternative Design

Of the jurisdictions that apply some sort of risk-utility analysis to identify defectiveness, most of them require plaintiffs to prove that an alternative design, if adopted, would have eliminated or reduced the risk of harm without making the product impractical or prohibitively expensive. Such evidence is required by statute in Louisiana,³¹⁹ Mississippi,³²⁰ New Jersey,³²¹ Ohio,³²² Texas,³²³ and Washington.³²⁴ In Alabama,³²⁵ Colorado,³²⁶

³¹⁶ See, e.g., *Caterpillar Tractor Co. v. Beck*, 593 P.2d 871, 884-885 (Alaska 1979), *aff'd in part, rev'd in part*, 624 P.2d 790 (1981).

³¹⁷ See, e.g., *Masaki v. General Motors Corp.*, 780 P.2d 566, 579 (Haw. 1989); and *Ontai v. Straub Clinic & Hosp. Inc.*, 659 P.2d 734 (Haw. 1983).

³¹⁸ See, e.g., OHIO REV. CODE ANN. §§ 2307.75(A) (Page 1991).

³¹⁹ See LA. REV. STAT. ANN. § 9:2800.56.

³²⁰ See, e.g., MISS. CODE ANN. § 11-1-63 (1993) (plaintiff must prove that "there existed a feasible design alternative that would to a reasonable probability have prevented the harm . . . without impairing the utility, practicality or desirability of the product to users or consumers.").

³²¹ See N.J. STAT. ANN. § 2A:58C-3-a(1) (West 1987). See also *Smith v. Keller Ladder Co.*, 645 A.2d 1269 (N.J. Super 1994) (requiring proof of a reasonable, safer alternative design).

³²² See OHIO REV. CODE ANN. § 2307.75(F). Subsection (F) reads:

A product is not defective in design or formulation if, at the time the product left the control of its manufacturer, a practical and technically feasible alternative design or formulation was not available that would have prevented the harm for which the claimant seeks to recover compensatory damages without substantially impairing the usefulness or intended purpose of the product, unless the manufacturer acted unreasonably in introducing the product into trade or commerce.

Id.

³²³ See TEX. CIV. PRAC. & REM. CODE ANN. § 82.005 (West 1993). Section 82.005 places on the plaintiff the burden to prove that there was a reasonable, safer alternative design which "in reasonable probability would have prevented or significantly reduced the risks of the claimant's [harm] without substantially impairing the product's utility; and [which] was economically and technologically feasible at the time the product left the control of the manufacturer or seller. . . ."

³²⁴ See WASH. REV. CODE § 7.72.030(1). See also *Couch v. Mine Safety Appliances Co.*, 728 P.2d 585, 586 (Wash. 1986) (applying § 7.72.030(1)).

³²⁵ See, e.g., *Townsend v. General Motors Corp.*, 642 So.2d 411, 418 (Ala. 1994) (plaintiff must prove "that a safer, practical, alternative design was available to the manufacturer at the time it manufactured the [product]").

³²⁶ See, e.g., *Armentrout v. FMC Corp.*, 842 P.2d 175, 184-85 (Colo. 1992) ("The

Delaware,³²⁷ the District of Columbia,³²⁸ Florida,³²⁹ Georgia,³³⁰ Illinois,³³¹ Indiana,³³² Kentucky,³³³ Massachusetts,³³⁴ Michigan,³³⁵ Minnesota,³³⁶ Montana,³³⁷ New York,³³⁸ Oregon,³³⁹ and Pennsylvania,³⁴⁰ evidence of a safer

existence of a feasible alternative is a factor in the risk-benefit analysis of the unreasonable dangerousness of the product design.”).

³²⁷ Delaware does not recognize strict liability in tort. *See, e.g.*, *Nacci v. Volkswagen of America, Inc.*, 325 A.2d 617, 620 (Del. Super. Ct. 1974) (A product is defectively designed when its “design has created a risk of harm which is so probable that an ordinary prudent person, acting as a manufacturer, would pursue a different available design which would substantially lessen the probability of harm.”).

³²⁸ *See, e.g.*, *Hull v. Eaton*, 825 F.2d 448, 454 (D.C. Cir. 1987) (Applying Washington D.C. law) (Defective design if “there was a feasible way to design a safer product and an ordinary consumer would conclude that the manufacturer ought to have used that alternative design.”).

³²⁹ *See, e.g.*, *Radiation Technology, Inc. v. Ware Const. Co.*, 445 So. 2d 329, 331 (Fla. 1983) (considering the manufacturer’s “ability to eliminate or minimize the danger without seriously impairing the product or making it unduly expensive.”).

³³⁰ *See, e.g.*, *Banks v. I.C.I. Americas, Inc.*, 1994 WL 677536 at 2 (Ga. 1994) (the court formulated the inquiry as “whether the design chosen was a reasonable one from among the feasible choices of which the manufacturer was aware or should have been aware.”).

³³¹ *See, e.g.*, *Lamkin v. Towner*, 563 N.E.2d 449, 457-58 (Ill. 1990); and *Lease v. International Harvester Co.*, 529 N.E.2d 57 (Ill. App. Ct. 1988).

³³² *See, e.g.*, *Jackson v. Warrum*, 535 N.E.2d 1207, 1220 (Ind. Ct. App. 1989) (“burden of proof scheme” requires that “plaintiff must prove that a feasible safer alternative product design existed.”).

³³³ *See, e.g.*, *Ingersoll-Rand Co. v. Rice*, 775 S.W.2d 924, 928-29 (Ky. Ct. App. 1989).

³³⁴ *See, e.g.*, *Kotler v. American Tobacco Co.*, 926 F.2d 1217 (1st Cir. 1990) (applying Massachusetts law)(A design defect case based on breach of warranty is dependent on proof of the existence of a safer alternative design.).

³³⁵ *See, e.g.*, *Owens v. Allis-Chalmers Corp.*, 326 N.W.2d 372, 378-79 (Mich. 1982) (defendant’s motion for directed verdict granted after plaintiff failed to introduce evidence of “the magnitude of the risks involved and the reasonableness of the proposed alternative design”).

³³⁶ *See, e.g.*, *Kallio v. Ford Motor Co.*, 407 N.W.2d 92, 96 (Minn. 1987).

³³⁷ *See, e.g.*, *Rix v. General Motors Corp.*, 723 P.2d 195, 202 (Mont. 1986) (a design is unreasonably dangerous “if at the time of manufacture an alternative designed product would have been safer than the original designed product and was both technologically feasible and a marketable reality.”).

³³⁸ *See, e.g.*, *Voss v. Black & Decker*, 450 N.E.2d 204, 208 (N.Y. 1983) (“The plaintiff, of course, is under an obligation to present evidence that the product, as designed, was not reasonably safe because there was substantial likelihood of harm and it was feasible to design the product in a safer manner.”).

³³⁹ *See, e.g.*, *Wood v. Ford Motor Cp.*, 691 P.2d 495, 498 (Or. Ct. App. 1984) (“Plaintiff must show that an alternative safer design, practicable under the circumstances, was available.”).

³⁴⁰ *See, e.g.*, *Fitzpatrick v. Madonna*, 636 A.2d 322, 326 (Pa. Super. 1993)(holding boat

reasonable alternative design is mandated by judicial decision. Moreover, the absolute refusal by courts and legislatures to adopt categorical liability suggests that all claims of defective design, in all jurisdictions, must be supported by some evidence of a safer alternative design, whether such evidence is explicitly required or not.³⁴¹

3. *Negligence v. Strict Liability*

The new Restatement establishes reasonableness as the governing standard for liability in design defect cases, but it avoids using the language of negligence and strict liability. Rather, the liability standards are set forth in functional terms which directly address the nature of the design defect. The abandonment of the strict liability label underscores the struggles of courts and commentators to develop a strict liability theory of recovery for defectively designed products. Courts in Alabama,³⁴² Georgia,³⁴³ Michigan,³⁴⁴ Minnesota,³⁴⁵ and New York³⁴⁶ have admitted the futility of trying to graft a theory of strict liability onto design defect claims, and have recognized that design defect liability is predicated on negligence principles. Most courts maintain, however, that their treatment of these claims is not inconsistent. The most common way in which the courts differentiate negligence and strict liability as applied to claims of defective design is by imputing to the manufacturer or seller the knowledge of the product's propensities to cause harm

propeller not defectively designed because no feasible alternative design was available); *Habecker v. Clark Equip. Co.*, 942 F.2d 210 (3d Cir. 1991) (applying Pennsylvania law) ("If no such alternative feasible design existed when the product was manufactured, then the design cannot be said to be defective.").

³⁴¹ See *supra* notes 118-142, and accompanying text.

³⁴² See, e.g., *Casrell v. Altec Indus.*, 335 So. 2d 128, 132 (Ala. 1976) (stating that Alabama Extended Manufacturer's Liability Doctrine incorporates much of the rationales and terminology of the Section 402A but purports to retain the "fault" concept of a negligence action).

³⁴³ See, e.g., *Banks v. I.C.I. Americas, Inc.*, 1994 WL 677536 at 1 (Ga. 1994) (stating that whether a product is defectively designed is determined on the basis of a risk-utility analysis, which incorporates the concept of "reasonableness").

³⁴⁴ See, e.g., *Prentiss v. Yale Mfg. Co.*, 365 N.W.2d 176, 186 (Mich. 1984) (adopting "a pure negligence, risk-utility test in products liability actions against . . . where liability is predicated upon defective design.").

³⁴⁵ See, e.g., *Holm v. Sponco Mfg.*, 324 N.W.2d 207, 212-213 (Minn. 1982) (adopting a "reasonable care" balancing test for design defectiveness).

³⁴⁶ See, e.g., *Opera v. Hyva, Inc.*, 86 A.D.2d 373 (N.Y. App. 1982) ("Defective design cases are thus similar to negligence cases and the standards for imposing liability for design defects are general negligence principles.").

which was available at the time of the trial.³⁴⁷ This approach, however, is less than satisfactory.

Theoretically, focusing on the product's quality at the time of the trial can strip the inquiry of any notions of negligence and fault. The critics of this position argue, however, that drawing such semantic distinctions does not change what is fundamentally a negligence analysis,³⁴⁸ and that these distinctions only needlessly confuse the jury's task in determining liability.³⁴⁹ After all, if the product's ultimate quality is a direct function of the manufacturer's conduct, any analysis focusing on the product itself will invariably implicate the conduct of the manufacturer in designing it. In fact, by inviting the trier of fact to balance factors concerning the manufacturer's conduct and judgment, the risk-utility test necessarily reduces the analysis to one of reasonableness.

Moreover, the overwhelming consensus among jurisdictions that plaintiffs must introduce some evidence of the availability of a safer, practical alternative design before liability is imposed specifically focuses the inquiry upon the manufacturer's decision to reject such alternatives.³⁵⁰ There is no way to compare the risks and benefits of alternative designs without questioning the appropriateness of the design ultimately selected by the manufacturer. Since the manufacturer's ability to, and decision not to, reduce the unsafe character of the product is evaluated based on information available at the time the decision was made, the evaluation is fundamentally a negligence analysis.³⁵¹ Thus, even though plaintiffs may be afforded the help of imputed knowledge of dangerous characteristics, the fact that they must prove what amounts to negligence by the manufacturer in designing the product further reduces the significance of drawing a distinction between negligence and strict liability in design defect cases.

CONCLUSION

Despite the A.L.I.'s adoption of Tentative Draft No. 2, the debate as to the appropriate standard to govern manufacturers' liability for their design choices is unlikely to cease. The normative desirability of a fault-based

³⁴⁷ See notes 157-164.

³⁴⁸ See L. Frumer & M. Friedman, *Products Liability* § 3.03[4], at 3-615 (1989); Birnbaum, *supra* note 11, at 609-10.

³⁴⁹ See, e.g., *Prentis v. Yale Mfg.*, 365 N.W.2d 176, 184 (Mich. 1984) (the court stated that "in so doing in the context of [design defect] cases . . . we have engaged in a process that may have served to confuse, rather than enlighten, jurors . . ."); Birnbaum, *supra* note 11, at 601.

³⁵⁰ See, e.g., *Reed v. Tiffin Motor Homes, Inc.*, 697 F.2d 1192, 1197 (4th Cir. 1982); *Voss v. Black & Decker Mfg. Co.*, 450 N.E.2d 204, 208 (N.Y. 1983).

³⁵¹ See Birnbaum, *supra* note 11. See also John W. Wade, *Strict Tort Liability of Manufacturers*, 19 Sw.L.J. 5, 14-15 (1965).

standard aside, however, the Draft's approach accurately reflects the dominant trend in American products liability law. That trend is the result of a growing recognition that the due care a manufacturer exercises in deciding whether to adopt a particular design among available alternatives is an intrinsic part of its final product. In evaluating the condition of the final product for the purposes of imposing liability, the trier of fact must necessarily consider the reasonableness of the manufacturer's conduct in making the design selection in question. Thus, the design defect section of the *Restatement (Third) of Torts: Products Liability* is an accurate Restatement of design defect law, in that it does not represent an attempt to engage in academic tort reform.

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