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THE DESIGN DEFECT TEST IN NEW JERSEY: AN UNWORKABLE STANDARD

Nowhere in products liability is it more difficult to apply standards for liability than in the area of design defects. While the test for manufacturing defects arises from notions of breach of implied warranty and strict liability in tort, the test for design defects poses a much more burdensome problem. In the former, the defect is readily ascertainable because reference can be made to the manufacturer's own production standards and, if necessary, to those standards customarily observed in the industry. In design defect cases, however, this type of analysis cannot be made because a defective design implicates not only the specific product that caused the in-


jury, but also the entire product line. This necessitates reference to some external standard. Most courts determine this external standard through a risk-utility balancing test, although a conflict has arisen as to whether consumer expectations should be used as an independent ground to determine liability. The inability to resolve this conflict—to determine whether to use one test without the other or even to use both together—may lead a court to improperly formulate the design defect test.

This note examines this problem as exemplified by New Jersey law, culminating in Dawson v. Chrysler Corp. In Dawson, the United States Court of Appeals for the Third Circuit applied the New Jersey test for design defects to the issue of whether a car manufactured by Chrysler was defectively designed. It is submitted that Dawson was incorrectly decided because of the unworkable test formulated by the New Jersey courts. Moreover, the Third Circuit should not have had to request help from Congress to straighten out this area of the law. This note also reviews the evolution of products liability law and examines the extent to which other states, notably California, have influenced New Jersey law. An appraisal of existing

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4. See id.


6. While several courts and commentators have adopted the use of consumer expectations as an independent ground to determine liability, see, e.g., Caterpillar Tractor Co. v. Beck, 593 P.2d 871 (Alaska 1979); Suter v. San Angelo Foundry & Mach. Co., 81 N.J. 150, 406 A.2d 140 (1979); Montgomery & Owen, Reflections on the Theory and Administration of Strict Tort Liability for Defective Products, 27 S.C. L. Rev. 803, 823 (1976); Twerski, From Defect to Cause to Comparative Fault—Rethinking Some Product Liability Concepts, 20 MARQ. L. Rev. 297, 312-16 (1976), a number of commentators have opposed the use of consumer expectations as an independent ground to determine liability. See, e.g., Birnbaum, supra note 1, at 611-18; Schwartz, supra note 1, at 471-81; see also Model Uniform Product Liability Act § 104(B) & Analysis, 44 Fed. Reg. 62,714 (1979) [hereinafter cited as UPLA].


8. See id. at 956. The court concluded, with some reservations, that Chrysler was liable. See id. at 962.

9. See id. at 963.
New Jersey law, as set forth in *Suter v. San Angelo Foundry & Machine Co.* shows that the design defect test currently used is confusing, if not outright misleading. An analysis of *Dawson* in light of the *Suter* decision shows the impossibility of rendering a correct decision when applying the *Suter* test. Finally, this note proposes an alternative test in light of the *Suter-Dawson* experience, explaining why a legislative solution to the problem should be followed by New Jersey and other states as they continue to refine present products liability principles.

**THE DEVELOPMENT OF PRODUCTS LIABILITY**

**A. The Early Years**

At the outset, it is crucial to understand the evolution of the case law in the area of design defect litigation. The current New Jersey design defect test is based on the three early theories of products liability law—negligence, implied warranty, and strict tort liability—any one or combination of which can be set forth in an action for recovery of damages. While much of modern products liability law is commonly thought to consist of strict liability doctrines in the area of design defect litigation, implied warranty and negligence theories play a very important role, not only as the underpinnings of strict liability, but also as independent theories for the design defect test.

Any analysis of modern negligence theory as it applies to design defect litigation and, subsequently, to strict liability, must begin with the landmark case of *MacPherson v. Buick Motor Co.* In that case, the plaintiff was injured when one of the wooden wheel spokes

10. 81 N.J. 150, 406 A.2d 140 (1979); For a detailed discussion of *Suter*, see infra text accompanying notes 93-115.

11. See generally W. PROSSER, supra note 2, §§ 96-99.

12. Under a strict liability theory, the defendant manufacturer may be liable despite the reasonableness of his conduct. Instead, the focus is on the reasonableness of the product. In manufacturing defect cases, liability will always result when the product causing the injury is manufactured differently from the "normal" product line. In design defect cases, the reasonableness of the product must be ascertained through a comparison with some external standard.

13. In fact the implied warranty theory in New Jersey is held to be identical to a strict liability analysis. See Huddell v. Levin, 537 F.2d 726, 733 (3d Cir. 1976); See also, Santor v. A&M Karagheusian, Inc., 44 N.J. 52, 66, 207 A.2d 305, 312 (1965) (linking the concepts of strict liability in tort and consumer expectations).

14. Use of the negligence based risk-utility test alone resembles a pure negligence analysis. Variations on the burden of proof, however, can shift the inquiry towards strict liability notions. See infra text accompanying notes 72-76, 178-80.

broke on the car she was driving, causing the car to collapse. The plaintiff sued the defendant-manufacturer, claiming that the defendant’s failure to inspect the wooden spoke constituted negligence. Until MacPherson, the contract doctrine of privity prevented an injured plaintiff from recovering damages unless he was the immediate purchaser from the defendant; here, the vehicle was sold by Buick to a dealer who in turn sold it to the plaintiff. Justice Cardozo, recognizing society’s interest in imposing upon manufacturers a duty of care toward all users of a product, held that Buick was liable, notwithstanding the privity doctrine.

While lowering the privity barrier in a negligence action for a defective product greatly expanded the class of prospective plaintiffs, a plaintiff choosing to sue under a negligence theory still had the difficult burden of proving that the manufacturer was, in fact, negligent. Justice Traynor, concurring in Escola v. Coca-Cola Bottling Co., noted that this was a substantial burden despite the very liberal application of the res ipsa loquitur doctrine by the majority. In Escola, the plaintiff, a waitress, was injured when a Coca-Cola bottle exploded in her hand as she placed the bottle in the refrigerator. The plaintiff brought suit, claiming that the defendant had been negligent in selling “bottles containing said beverage which on account of excessive pressure of gas or by reason of some defect in the bottle was dangerous . . . and likely to explode.” The plaintiff relied solely on the doctrine of res ipsa loquitur, offering no evidence of specific acts of negligence. Nevertheless, the court held for the plaintiff. Justice Traynor viewed such a broad interpretation of the res ipsa loquitur doctrine as dishonest because “[i]t is needlessly circuitous to make negligence the basis of recovery and impose what is in reality liability without negligence.”

While the negligence rule approached that of strict products liability, the implied warranty of merchantability theory, another the-
ory relied upon in products liability actions, showed a similar development. Under the implied warranty theory, liability arises from the failure of the product to meet legitimate consumer expectations as to performance. A plaintiff relying on this theory of liability has to demonstrate only that the product purchased was of unmerchantable quality. Since no inquiry was made as to the manufacturer's conduct, an action under an implied warranty theory was very much like strict liability. This theory, however, was not without its problems for the injured plaintiff. Since the theory was firmly based in contract law, privity was a required element of the implied warranty cause of action. It was not until 1960—forty-four years after MacPherson—that the privity doctrine was struck down in the landmark case of Henningsen v. Bloomfield Motors, Inc. In Henningsen, the plaintiff was injured when the steering wheel of her car malfunctioned, forcing the car off the road. Because the plaintiff was not the immediate purchaser of the automobile the privity doctrine would have barred her suit. The New Jersey Supreme Court held, however, that the obligation of the manufacturer should not be based on the law of sales, but rather upon "the demands of social justice." Specifically, the court stated that a product carries an implied warranty of reasonable suitability, which accompanies the product "into the hands of the ultimate consumer."

B. The California Experience

The development of both the negligence and implied warranty theories provided two important concepts: First, lowering the privity barrier enabled a much broader class of plaintiffs to seek relief than had been able to do so before. Second, the shift from a negligence theory to strict liability changed the focus of the inquiry from the defendant's conduct to the quality of the product itself as did

25. See cases cited supra note 2.
26. See Birnbaum, supra note 1, at 594 n.8; see supra note 13.
27. See W. Prosser, supra note 2, § 97, at 655-56.
29. See id. at 369, 161 A.2d at 75.
30. See id. at 378-79, 161 A.2d at 80.
31. Id. at 384, 161 A.2d at 83 (quoting Mazetti v. Armour & Co., 75 Wash. 622, 135 P. 633, 635 (1913)).
32. Id. at 384, 161 A.2d at 84.
34. See Birnbaum, supra note 1 at 601; Keeton, The Meaning of Defect, supra note 1, at 33.
the implied warranty theory.⁵⁵ These notions provided the backdrop for the first case that held a manufacturer strictly liable for a defectively designed product. In Greenman v. Yuba Power Products, Inc.,⁵⁶ the plaintiff was injured while using the lathe attachment to a combination power tool. The piece of wood he was carving suddenly flew out of the machine, striking him on the forehead and causing serious injuries.⁵⁷ Writing for the majority, Justice Traynor recognized that manufacturers are in the best position to control and eliminate the risks posed by defective products and that they are better suited to bear the cost of a resulting injury.⁵⁸ Hence, a “manufacturer is strictly liable in tort when an article he places on the market, knowing that it is to be used without inspection for defects, proves to have a defect that causes injury to a human being.”⁵⁹ This test implies that the plaintiff, in order to recover damages, would have to establish that the product was defective simply because it could have been designed in other, safer ways.⁶⁰ Justice Traynor also suggested, however, that consideration of a consumer’s expectations may also be relevant to the inquiry:

Implicit in the machine’s presence on the market, however, was a representation that it would safely do the jobs for which it was built. Under these circumstances, it should not be controlling whether plaintiff selected the machine because of the statements in the brochure, or because of the machine’s own appearance of excellence that belied the defect lurking beneath the surface, or because he merely assumed that it would safely do the jobs it was built to do.⁶¹

The duality evident in Justice Traynor’s analysis, however, did not establish a clear cut method of analyzing design defect cases. It was not entirely clear, for example, which theory or theories another plaintiff would be required to prove in a case similar to Greenman—risk-utility to the exclusion of consumer expectations, vice
versa, or both tests. In addition, the court’s use of the term “defect,” without further explanation, did not suffice as an independent test for establishing liability. The Greenman court, while imposing strict liability, did not impose absolute liability. This distinction is significant; it suggests that some acceptable degree of risk exists. The question then becomes whether a product’s design is reasonable or whether reasonable alternatives to the existing product reduce the risk level without impairing the usefulness of the product. This crucial issue cannot easily be met through the use of the term “defect” alone.

Within two years of the Greenman decision, Restatement (Second) of Torts section 402A provided for strict liability of the seller for “any product in a defective condition unreasonably dangerous to the user or consumer.” Unreasonably dangerous, as the comments to that section indicate, means 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 its characteristics.”

The Restatement (Second) formulation, however, was rejected by the California Supreme Court in Cronin v. J.B.E. Olson Corp. In Cronin, the plaintiff sustained serious injuries when the bread delivery truck he was driving was involved in an accident. Because of the sudden deceleration of the truck, a metal hasp, designed to hold the bread trays in place, broke. The trays were propelled toward the front of the truck, striking the plaintiff, and causing him to go through the windshield. On appeal, the California Supreme Court

42. While defectively manufactured products can be compared to normally manufactured products, design defects cannot be compared to standard products. Therefore, there must be some external test or language which, when applied to the product, would indicate that there was a “defect” resulting in manufacturer liability. See supra text accompanying notes 3-4.

43. Absolute liability in this context would find the manufacturer liable for all harms caused by the product, without regard to fault. In effect, the manufacturer would be an insurer of all users of the product. See, e.g., Birnbaum, supra note 1 at 600 n.32; Wade, On the Nature, supra note 1 at 828.

44. This analysis, suggested by the Greenman court, is at the heart of the risk-utility test widely used today. See supra text accompanying note 5; see infra text accompanying notes 70-76.

45. Restatement (Second) of Torts § 402A (1965).

46. Id. § 402A (1).

47. Id. § 402A, Comment i. This follows the strict liability/implied warranty/consumer expectations terminology evident in Greenman.

48. 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972).

49. Id. at 124, 501 P.2d at 1155, 104 Cal. Rptr. at 435.
was troubled by the "unreasonably dangerous" modifier to the term defect. First, the court concluded that using the modifier "unreason-
able" to describe a product introduces the question of reasonable conduct which "rings of negligence" and has a "negligence complex-
ion." Second, the court stated that the modifier, if taken literally by the trier of fact, would appear to impose a dual burden to show not only the existence of a defect but also that the defect rendered the product unreasonably dangerous. Finally, the court recognized that use of the unreasonable danger test could result in a situation where there would be no liability, no matter how dangerous a product might be, as long as a consumer's expectations of product performance had been met.

Cronin's rejection of the "unreasonably dangerous" modifier, in reality, left California with no test at all. It was up to the court in Barker v. Lull Engineering Co. to try once again to create a workable test for design defect cases. In Barker, the plaintiff-employee was seriously injured at a construction site when he was operating a high-lift loader while substituting for the loader's regular operator. While operating the loader on sharply sloping terrain, the plaintiff was forced to jump off the loader when it began to tip over, and was injured in the fall. At trial, the plaintiff contended that the loader was defectively designed, arguing that the loader should have been equipped with outriggers, a roll bar, and seat belts. The defendant-manufacturer denied that the loader was defectively designed, arguing instead that the injury had occurred because the loader was misused. According to the defendant, an experienced operator would have known that a high-lift loader should not be used on steep terrain. The trial court had instructed the jury "that strict liability for a defect in design of a product is based on a finding that the product was unreasonably dangerous for its intended use . . . ." The jury subsequently returned a verdict for the defendant-manufacturer and the plaintiff appealed, arguing that Cronin had dispensed with the

50. Id. at 132-33, 501 P.2d at 1162, 104 Cal. Rptr. at 442.
51. Id. at 133, 501 P.2d at 1162, 104 Cal. Rptr. at 442; see also Glass v. Ford Motor Co., 123 N.J. Super. 599, 304 A.2d 562 (Law Div. 1973) (adopting the Restatement (Second) formulation but eliminating the "unreasonably dangerous" modifier).
52. 8 Cal. 3d at 132-33, 501 P.2d at 1162, 104 Cal. Rptr. at 442.
53. See Birnbaum, supra note 1, at 603.
54. 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978).
55. Id. at 419, 573 P.2d at 447, 143 Cal. Rptr. at 229.
56. Id. at 419-21, 573 P.2d at 447-48, 143 Cal. Rptr. at 229-30.
57. Id. at 417, 573 P.2d at 446, 143 Cal. Rptr. at 228.
“unreasonably dangerous” requirement. The defendant, however, maintained that the word “defect” alone provided insufficient guidance to a jury and that the “unreasonably dangerous” modifier should be used. The Barker court, in holding for the plaintiff, reaffirmed Cronin, although it was not prepared to eliminate consumer expectations from the design defect analysis. The court reasoned that the consumer expectations test, as then envisioned, was a maximum test of liability; why, the court questioned, couldn’t the test still be used as a minimum test for liability? In this mode, an injured plaintiff would recover when a product, dangerous or not, failed to meet the expectations of the ordinary consumer when used in a reasonably foreseeable manner. For cases where a dangerous product met consumer expectations or where there was no evidence of consumer expectations as to the performance of the product, the court added another test, risk-utility analysis, to the consumer expectations test. This “two-pronged” defect test, as it is now known, was formulated as follows:

[I]n design defect cases, a court may properly instruct a jury that a product is defective in design if (1) the plaintiff proves that the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner, or (2) the plaintiff proves that the product’s design proximately caused injury and the defendant fails to prove, in light of the relevant factors, that on balance the benefits of the challenged design outweigh the risk of danger inherent in such design.

58. Id. at 422-24, 573 P.2d at 449-50, 143 Cal. Rptr. at 231-32.
59. Id. at 427, 573 P.2d at 452, 143 Cal. Rptr. at 234. Defendant further argued that Cronin was limited to manufacturing defect cases and, therefore, disapproval of the “unreasonably dangerous” language should extend only to manufacturing defect cases. Id. at 423-24, 573 P.2d at 449-50, 143 Cal. Rptr. at 231-32. The Barker court rejected this argument, finding no such distinction in the language of Cronin. Id. at 425-26, 573 P.2d at 451-52, 143 Cal. Rptr. at 233-34.
60. See id. at 417, 573 P.2d at 446, 143 Cal. Rptr. at 228.
61. The court noted a long acceptance of the consumer expectations test in California law, beginning with Greenman’s acceptance of consumer expectations as a reflection of implied warranty principles. Id. at 430, 573 P.2d at 454, 143 Cal. Rptr. at 236.
62. Id. at 425-26 n.7, 573 P.2d at 451 n.7, 143 Cal. Rptr. at 233 n.7.
63. Id. at 430, 573 P.2d at 454, 143 Cal. Rptr. at 236.
64. Both of these situations should be contrasted with the case where consumer expectations exist concerning the performance of a product and the expectations are not met. For example, a consumer would expect that an automobile tire would not break apart at normal driving speeds, or that in the ordinary operation of a carving knife, the blade would not separate from the handle. See infra note 108.
65. See 20 Cal. 3d at 430-31, 573 P.2d at 454-55, 143 Cal. Rptr. at 236-37.
66. Id. at 426-27, 573 P.2d at 452, 143 Cal. Rptr. at 234 (emphasis omitted).
The first prong of this two-part test, the consumer expectations test, is really nothing more than a simplified version of the previously rejected\textsuperscript{67} Restatement (Second) definition, which measures a product's defectiveness in terms of the expectations of an ordinary consumer who purchases it.\textsuperscript{68} When the plaintiff proves that the product fails to meet consumer expectations, the defendant-manufacturer is held liable; thus, the test provides a minimum standard that no product can fall below.\textsuperscript{68}

If the product does meet consumer expectations or where evidence of consumer expectations is not available, then the second prong, or risk-utility analysis, comes into play. Under one author's view, adopted by the California courts, liability attaches "if a reasonable person would conclude that the magnitude of the scientifically perceivable danger as it is proved to be at the time of trial outweighed the benefits of the way the product was so designed and marketed."\textsuperscript{70} This balancing test requires the consideration of many factors. Dean Wade has proposed a list of seven factors for use in the analysis:

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

\textsuperscript{67} See Cronin, 8 Cal. 3d at 132-33, 501 P.2d at 1162, 104 Cal. Rptr. at 442.
\textsuperscript{68} Restatement (Second) of Torts § 402A comment i (1965); see supra text accompanying note 47.
\textsuperscript{69} The consumer expectations test as formulated is not without criticism. See Birnbaum, supra note 1, at 617-18.
\textsuperscript{70} Keeton, The Meaning of Defect, supra note 1, at 38 (emphasis in original).
71. Wade, *On the Nature, supra* note 1, at 837-38 (footnote omitted). Other commentators have set forth their own tests. Professor Fischer, for example, has proposed that a court should use a more extensive test:

I. Risk Spreading
   A. From the point of view of consumer.
      1. Ability of consumer to bear loss.
         a. Knowledge of risk.
         b. Ability to control danger.
         c. Feasibility of deciding against use of product.
   B. From point of view of manufacturer.
      1. Knowledge of risk.
      2. Accuracy of prediction of losses.
      3. Size of losses.
      4. Availability of insurance.
      5. Ability of manufacturer to self-insure.
      6. Effect of increased prices on industry.
      7. Public necessity for the product.
      8. Deterrent effect on the development of new products.

II. Safety Incentive
   A. Likelihood of future product improvement.
   B. Existence of additional precautions that can presently be taken.
   C. Availability of safer substitutes.


1. The nature of the product as a vehicle for creation of persuasive advertising images, and the relationship of this factor to the ability of sellers to generate product representations in mass media;
2. The specificity of representations and other communications related to the product;
3. The intelligence and knowledge of consumers generally and of the disappointed consumer in particular;
4. The use of sales appeals based on specific consumer characteristics;
5. The consumer's actions during his encounter with the product, evaluated in the context of his general knowledge and intelligence and of his actual knowledge about the product or that which reasonably could be ascribed to him;
6. The implications of the proposed decision for public health and safety generally, and especially for social programs that provide coverage for accidental injury and personal disability;
7. The incentives that the proposed decision would provide to make the product safer;
8. The cost to the producer and other sellers of acquiring the relevant information about the crucial product characteristic and the cost of supplying it to persons in the position of the disappointed party;
9. The availability of the relevant information about the crucial product characteristics to persons in the position of the disappointed party and the cost to them of acquiring it;
10. The effects of the proposed decision on the availability of data that bear on consumer choice of goods and services;
11. Generally, the likely effects on prices and quantities of goods sold;
12. The costs and benefits attendant to determination of the legal issues involved,
In applying the Wade factors, a complication arises from the
tension between negligence and strict liability principles. Since the
manufacturer is not going to be held to absolute liability for an in-
jury resulting from a product's design, it is important to focus on the
critical factors to determine liability. On the one hand, under negli-
gence principles, the inquiry focuses on the design of the product
when the design was undertaken by the manufacturer. This ap-
proach would consider the manufacturer's design choices at the time
of the design—more specifically, what factors were weighed by the
manufacturer at that time.\textsuperscript{72}

In contrast, under strict liability principles, the risk-utility anal-
ysis is applied to the design of the product as it is seen at the time of
sale.\textsuperscript{73} Under this test, the inquiry is on the product's reasonableness
at the time it was sold, regardless of what possible intervening tech-
nologies were present between the design and the sale of the prod-
uct.\textsuperscript{74} Currently, both California\textsuperscript{75} and New Jersey\textsuperscript{76} follow this latter
test.

either by private litigation or by collective social judgment;

13. The effects of the proposed decision on wealth distribution, both between sell-
ers and consumers and among sellers.

Shapo, \textit{A Representational Theory of Consumer Protection: Doctrine, Function and Legal
Montgomery and Owen have proposed a test that includes only four parts:

(1) The cost of injuries attributable to the condition of the product about which
the plaintiff complains—the pertinent accident costs.
(2) The incremental cost of marketing the product without the offending condi-
tion—the manufacturer's safety cost.
(3) The loss of functional and psychological utility occasioned by the elimination
of the offending condition—the public's safety cost.
(4) The respective abilities of the manufacturer and the consumer to (a) recognize
the risks of the condition, (b) reduce such risks, and (c) absorb or insure against
such risks—the allocation of risk awareness and control between the manufacturer
and the consumer.

\textit{Montgomery & Owen, supra} note 6, at 818. \textit{See also} Dickerson, \textit{Products Liability: How
Good Does a Product Have to Be?}, 42 IND. L.J. 301, 331 (1967); Vetri, \textit{Products Liability:

72. This view finds clear and strong support in the UPLA, \textit{supra} note 6. \textit{See infra} text
accompanying notes 172-80.

73. \textit{See Birnbaum, supra} note 1, at 622; Keeton, \textit{The Meaning of Defect, supra} note 1,
at 37-38.

74. \textit{See Birnbaum, supra} note 1, at 622.

75. \textit{See} Barker, 20 Cal. 3d at 430, 573 P.2d at 454, 143 Cal. Rptr. at 236.

149-50 (1979).
PRODUCTS LIABILITY IN NEW JERSEY

Through the Barker test, the California Supreme Court has provided a coherent, step-by-step guide for lower courts to follow in design defect cases. During the evolution from Greenman, decided in 1963, to Barker, decided in 1978 the New Jersey courts essentially relied on the Restatement (Second) section 402A test. Since Dawson v. Chrysler Corp.'s 77 importance is appreciated best in light of Suter v. San Angelo Foundry & Machine Co., 78 and since Suter rests largely on the dual tests of consumer expectations and risk-utility analysis first developed through California opinions, 80 the following analysis of New Jersey case law will begin with Cepeda v. Cumberland Engineering Co., 81 the first New Jersey case to explicitly recognize the risk-utility factors inherent in a design defect case. 82

In Cepeda, the plaintiff lost four fingers when his hand was caught in a "pelletizing" machine from which the safety guard had been removed. 89 The plaintiff claimed that the machine was defectively designed because the defendant had failed to equip the product with an interlock assembly mechanism designed to prevent the machine from operating when the safety guard was removed. The plaintiff contended that normal operation of the machine frequently required the removal of the guard; thus, the defendant should have expected that the machine would be operated without the guard, and

80. See supra text accompanying notes 36-71.
82. Id. at 171-76, 386 A.2d at 825-27.
83. Id. at 161, 386 A.2d at 820.
should have designed the product accordingly. The trial court used language from both section 402A and implied warranty theory to instruct the jury. The jury returned a verdict for the plaintiff and, on appeal by the defendant, the appellate division held "that the evidence compelled the conclusion as a matter of law that the machine as delivered was free of design defect." The court reasoned that "if the safety device provided with the machine was not used, the manufacturer 'cannot be held responsible for unforeseeable negligence on the part of third parties in operating or permitting operation of the equipment without the device.'" On appeal to the New Jersey Supreme Court, however, the court applied section 402A and the Wade-Keeton prudent manufacturer's test and ruled that the potential dangerousness of a machine's design was a jury question to be resolved by considering whether a reasonably prudent manufacturer, after balancing the risks versus the utility of the machine, would release the machine into the stream of commerce. Under this standard, any evidence of design risk at the time of sale would be imputed to the manufacturer at the time of the manufacture of the machine. In a lengthy analysis, the majority recognized the increasing acceptance of the risk-utility analysis, and noted the general criticism of the Cronin decision, which relied solely on section 402A. The Cepeda court, unwilling to completely abandon the Restatement (Second) language previously followed by New Jersey courts, instructed the court on remand to incorporate into the risk-utility jury instruction consideration of whether the product's defective condition was unreasonably dangerous.

This jury instruction, however, did not last long; shortly thereafter, in Suter v. San Angelo Foundry & Machine Co., the court recognized the undesirability of using the section 402A language.

84. Id.
85. Id. at 162, 386 A.2d at 821.
86. Id. (quoting 138 N.J. Super. 344, 351, 351 A.2d 22, 26 (Law Div. 1976)).
87. Id. at 173-75, 386 A.2d at 826-27.
88. Id. at 163, 386 A.2d at 821.
89. Id. at 171-75, 386 A.2d at 825-27.
90. Id. at 171 n.4, 386 A.2d at 825 n.4.
91. Id. at 179-80, 386 A.2d at 829.
92. This result was inevitable; by using the strict liability/consumer expectations language of § 402A with the risk-utility test, which is based on negligence principles, the two dissimilar principles were proposed to be used together as one single theory. See id. at 174-75, 386 A.2d at 827. For a discussion of these principles see supra text accompanying notes 67-71.
94. See id. at 174-77, 406 A.2d 152-153.
In *Suter*, the plaintiff was injured when his hand was caught in the cylinders of an industrial sheet metal rolling machine designed to take flat sheets of metal and curve them into cylinders. While the machine was in the neutral position, the plaintiff reached into the rollers to try to remove a piece of slag. As he reached in, however, his body grazed the gear lever, activating the machine's rollers and injuring his hand. Plaintiff alleged that the rolling machine was defectively designed, claiming that either a rotary guard should have been placed around the lever, or the lever should have been located higher up on the machine. Either of these design alternatives, the plaintiff argued, would have prevented accidental activation of the rollers.

In a confusing opinion, the New Jersey Supreme Court first approved the trial court's jury instruction, despite its nonconformance with the language of the instructions set forth in *Cepeda*. The court then discussed the development of strict liability principles in New Jersey, noting that in certain defect cases, the nature of the alleged defect is clear. Although the court did not expressly label such "clear" defects as manufacturing defects, it characterized a defect as an "[i]mperfect material, a defective weld, or some physical damage in the product." Next, the court stated: "We perceive that the only additional question to be put to the jury in a case involving a design defect, *vis-à-vis* other defects, is whether the product design was improper." The court noted that in some design defect cases, it is "self-evident that the product is not reasonably suitable and safe and fails to perform, contrary to the user's reasonable expectation that it would 'safely do the jobs for which it was built.'" This test

95. *Id.* at 156-57, 406 A.2d at 142-43.
96. *Id.* at 157, 406 A.2d at 143.
97. *Id.*
98. *Id.* at 168, 406 A.2d at 149. The trial court's jury instruction consisted of only four elements:
(1) that the product had not been reasonably fit for the ordinary use for which it was intended;
(2) that the defect arose out of defendant's design of the machine;
(3) that the defect proximately caused plaintiff's injury or damage; and
(4) that [the] plaintiff was a reasonably foreseeable consumer or user of the product.

*Id.* The *Suter* court nonetheless approved the trial court's instruction because in its view it "generally conformed with the approach developed in our case law." *Id.*

99. *Id.* at 170, 406 A.2d at 150. These are all examples, of course, of manufacturing defects.
100. *Id.*
would appear to be the New Jersey equivalent of the consumer expectations test articulated earlier in Barker. Likewise, application of the Suter test could result in liability for the defendant if a plaintiff could prove that his reasonable consumer expectations had not been met. The court then determined that in cases where it was not self-evident that the product failed to meet a reasonable consumer's expectations, a jury instruction should be added that focuses on the manufacturer's reasonableness in placing the product into the marketplace in its present design versus the allegedly safer alternative design. The Suter court then departed from Cepeda by discarding the "defective condition unreasonably dangerous" language in the risk-utility instruction adopted just fifteen months earlier, reasoning that such language requires a plaintiff to establish not only the presence of a defect, but also that the defect created an unreasonably dangerous condition.

The sudden departure from the Cepeda precedent notwithstanding, the focus here is on the Suter court's proposed jury instructions in a design defect case, where consumer expectations and risk-utility theories are to be submitted cumulatively. In Barker, the consumer expectations portion of the two-pronged test could apply only if the defect was self-evident. The risk-utility analysis, however, could be used if the defect was not self-evident or if the plaintiff chose to use only the second part of the test. The Barker test,


102. See supra text accompanying notes 67-69.

103. 81 N.J. at 171, 406 A.2d at 150. Despite the Suter court's focus on the reasonableness of the manufacturer instead of the reasonableness of the product, the test is generally consistent with the risk-utility analysis enunciated in Cepeda. See supra text accompanying notes 88-91; see also Wade, On the Nature, supra note 1, at 836-37. It is arguable, however, that the change from the focus on the product to the manufacturer's conduct represents more of a burden to the plaintiff, because negligence on the part of the manufacturer must be proved.

104. See 81 N.J. at 174-76, 406 A.2d at 152-53. As the concurrence points out, the Suter court's rejection of the use of "unreasonably dangerous" is "remarkable." Id. at 183-84, 406 A.2d at 157 (Clifford, J., concurring). The Cepeda court, in a unanimous decision barely fifteen months earlier, reviewed the California decision in Cronin which rejected the use of the unreasonably dangerous language, yet the Cepeda court continued to use the unreasonably dangerous language in its jury instruction. See id.

105. Id. at 174-76, 406 A.2d at 152-53.

106. Id. at 177, 406 A.2d at 153.

107. See id. at 177, 406 A.2d at 153. The concurrence refers to this as "a mixture of the apples of warranty with the oranges of negligence." Id. at 184, 406 A.2d at 157 (Clifford, J., concurring).

108. This situation would arise where the product's defect is so obvious that a manufacturer could claim that the consumer had knowledge of it, as for example, when a lawn mower
therefore, is posed in the disjunctive, i.e., either the consumer expectations test or the risk-utility test is to be instructed to the jury. Under Suter, however, a trial court must generally instruct the jury using the language of the consumer expectations test, and then add the risk-utility charge, if it is needed. This is evident from the court's proposed instructions, the first of which is premised on the consumer expectations test:

When submitting the case to a jury, the court should charge generally that a manufacturer has an obligation to distribute products which are reasonably fit, suitable and safe for their intended or foreseeable purposes. If that obligation is violated and a user or others who may be expected to come in contact with the product are injured as a result, then the manufacturer is responsible for the ensuing damages. Design defect cases are covered as well within that context.

Next, the court recommended that risk-utility principles be charged as follows:

In those design defect situations in which the defect is not self-evident, the trial court should also charge the jury on whether the manufacturer, it being deemed to have known of the harmful propensity of the product, acted as a reasonably prudent one. Depending on the proofs, the trial court should explain pertinent factors related to the determination of reasonable prudence.

When the Suter approach is compared with that of Barker, it becomes evident that the former is closely patterned after the Barker

is used to cut grass where small stones are present. The lawn mower could kick out a stone, injuring the consumer; using only consumer expectations, the manufacturer could escape liability by claiming the consumer would expect a stone to kick out. By making consumer expectations a minimum test for liability, however, a consumer could still use risk-utility principles to prove that the lawn mower was defectively designed in that a better product could have been made without a decrease in utility. See supra text accompanying notes 70-71.

109. See supra text accompanying notes 63-71.
110. If the defect was self-evident to the consumer, the consumer expectations instruction would of course be included, but it would also be included in the jury instruction if the defect was not self-evident. See 81 N.J. at 177, 406 A.2d at 153.
111. If the defect had not been self-evident, the court would use a jury instruction consisting of both consumer expectations and risk-utility theories. If the defect was self-evident to the consumer, however, the consumer expectations instruction would appear to apply to the exclusion of the risk-utility instruction. The latter situation appears to formulate the consumer expectations test as a maximum test for liability, the exact circumstances the Barker court wanted to avoid. See supra text accompanying notes 60-63.
112. 81 N.J. at 177, 406 A.2d at 153.
113. Id. (emphasis added).
test, although the Suter test becomes an unworkable formulation because it is cumulative. For example, in a risk-utility case, a court applying the Suter test would have to charge generally whether the product was "reasonably fit, suitable and safe for [its] intended or foreseeable purposes,"—in effect requiring the trier of fact to use the consumer expectations test to determine whether the burden of proving the risk-utility factors had been met.116

Dawson v. Chrysler Corp.116 decided by the Third Circuit Court of Appeals fourteen months after the state court decision in Suter, exemplifies the unworkability of the Suter test. Dawson, a police officer, was seriously injured on September 7, 1974 when his 1974 Dodge Monaco patrol car slid off a rain-soaked highway and struck a steel pole at the left rear wheel well. The force of the impact caused the steel pole to rip through the body of the car, crushing Dawson between the seat and the "header" area of the roof located just above the windshield. Dawson dislocated his left hip and ruptured his fifth and sixth cervical vertebrae and, as a result, became a quadraplegic, requiring constant medical attention.117

Dawson, his wife, and their son brought suit against the Chrysler Corporation, the manufacturer of the vehicle, in the Court of Common Pleas of Philadelphia. Chrysler had the case removed to the United States District Court for the Eastern District of Pennsylvania on diversity grounds and subsequently transferred the case to the federal district court in New Jersey.118 The plaintiffs, whose claims were based on strict liability and implied warranty theories, alleged that the patrol car was defective because it did not have a full, continuous steel frame extending through the door panels, and a cross-member running through the floor board between the posts (located at the juncture of the front and rear doors) of the vehicle. They claimed that if the vehicle had been designed this way, the collision between the automobile and the steel pole would have re-

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115. This language served to further confuse the test for design defects. See Birnbaum, supra note 1, at 620. In his concurrence, Justice Clifford noted: "I for one quite honestly do not understand how the trial judges and jurors are to go about their business; and if I do not, I venture to say there may be some of them who will share my dullness of comprehension." 81 N.J. at 184, 406 A.2d at 157 (Clifford, J., concurring).
117. Id. at 953-54.
118. Id. at 954 (citing 28 U.S.C. §§ 1404(a), 1441(a) (1976)).
sulted in only slight penetration of the pole into the passenger compartment and only slight injury to Dawson.\textsuperscript{119}

In response, Chrysler first argued that it had no duty to produce a "crashproof" vehicle.\textsuperscript{120} Next, Chrysler argued that since the 1974 Dodge Monaco complied with all federal vehicle safety standards, the vehicle could not be held to be defectively designed.\textsuperscript{121} In addition, Chrysler contended that its design, using a noncontinuous frame, was more desirable than the alternative proposed by the plaintiffs for at least three reasons: First, since most vehicle crashes are to the front end, a noncontinuous frame would better absorb the impact of the crash and decrease the rate of deceleration on the occupants of the vehicle than would a continuous frame. Second, the design alternative proposed by the plaintiffs would render the vehicle between 200 and 250 pounds heavier and $300.00 more expensive than the model then marketed.\textsuperscript{122} Finally, Chrysler proved that the 1974 Dodge Monaco's unibody construction was stronger than comparable Ford and Chevrolet vehicles.\textsuperscript{123}

Chrysler moved for a directed verdict upon the conclusion of all testimony; the district judge denied the motion.\textsuperscript{124} The jury returned a verdict for the plaintiffs, finding that the body structure of the 1974 Dodge Monaco was defective and unreasonably dangerous,\textsuperscript{125} and that Chrysler's failure to use the alternative design proposed by the plaintiffs caused Dawson to sustain injuries more severe than otherwise would have been incurred.\textsuperscript{126} The jury award included $2,064,863.19 for Mr. Dawson's expenses, disability, and pain and suffering and $60,000 to Mrs. Dawson for loss of consortium and loss of services. After entry of this judgment, Chrysler moved for a judgment notwithstanding the verdict, and alternatively for a new

\begin{itemize}
\item \textsuperscript{119} Id.
\item \textsuperscript{120} Id.
\item \textsuperscript{121} Id. (citing 49 C.F.R. § 571.1 (1979)).
\item \textsuperscript{122} Id.
\item \textsuperscript{123} Id. The factors Chrysler introduced are but some of the proofs in a proper risk-utility analysis rebuttal to plaintiff's alternative design.
\item \textsuperscript{124} Id. at 954-55.
\item \textsuperscript{125} Id. at 955. Although the trial court's jury instruction included the "unreasonably dangerous" language, for purposes of this note it was harmless error because the plaintiff won in the lower court, and therefore met the burdensome "unreasonably dangerous" test.
\item \textsuperscript{126} Id. at 955. Although the use of the alternative design could have prevented Richard Dawson's injuries, the critical inquiry is whether the utility of that design outweighs the risks of the design, or, alternatively, whether the utility of the present design used by Chrysler is outweighed by the risks of the present design because the alternative design would have avoided the injuries to the plaintiff with no overall increase in risk. See infra text accompanying notes 147-55.
\end{itemize}
trial. The court denied both motions.\footnote{127} On appeal, the Third Circuit Court of Appeals, applying New Jersey law, affirmed the district court judgment notwithstanding Chrysler's contentions that the plaintiffs' evidence was insufficient to establish that the 1974 Dodge Monaco was defective and unreasonably dangerous or that Chrysler breached an implied warranty of fitness.\footnote{128} The court first recognized that under the law of New Jersey, the governing principles of strict liability and the implied warranty theory are identical.\footnote{129} The court then proceeded to apply the facts to the law governing products liability design defect litigation in New Jersey, namely, the risk-utility analysis enunciated in Cepeda\footnote{130} and further developed in Suter.\footnote{131} After reviewing the evidence presented, the court concluded that the record was sufficient to sustain the jury's determination that Chrysler had manufactured a defectively designed automobile. The court stated:

The jury was not required to ascertain that all of the factors enumerated by the New Jersey Supreme Court in Cepeda weighed in favor of the Dawsons in order to find the patrol car defective. Rather, it need only to have reasonably concluded, after balancing these factors, that, at the time Chrysler distributed the 1974 Monaco, the car was "not reasonably fit, suitable and safe for its intended or reasonably foreseeable purposes. . . ."\footnote{132}

In an unusual conclusion,\footnote{133} the court remarked: "[A]lthough we affirm the judgment of the district court, we do so with uneasiness regarding the consequences of our decision and of the decisions of other courts throughout the country in cases of this kind."\footnote{134}

The court's misgivings about the decision it felt compelled to reach reflects its concern with a number of problems it anticipated.

\footnotesize{\begin{itemize}
  \item 127. 630 F.2d at 955.
  \item 128. Id. Chrysler also had contended that it had no duty to manufacture a vehicle sufficient to withstand this particular type of collision, but the court recognized that the manufacturer must consider accidents as among the "intended" uses of its products. Id. at 956 (quoting Huddell v. Levin, 537 F.2d 726, 735 (3d Cir. 1976)). For an elaboration of this principle, see Larsen v. General Motors Corp., 391 F.2d 495, 501-03 (8th Cir. 1968).
  \item 129. 630 F.2d at 955 (citing Huddell v. Levin, 537 F.2d 726, 733 (3d Cir. 1976)).
  \item 130. 76 N.J. 152, 386 A.2d 816 (1978); see 630 F.2d at 957. For a discussion of Cepeda see supra text accompanying notes 88-91.
  \item 131. 81 N.J. 150, 406 A.2d 140 (1979); see 630 F.2d at 956-57. For a discussion of Suter, see supra text accompanying notes 103-13.
  \item 132. 630 F.2d at 959 (citation omitted) (quoting Suter v. San Angelo Foundry & Mach. Co., 81 N.J. 150, 169, 406 A.2d 140, 149 (1979)).
  \item 133. See Nat'l L.J., Sept. 29, 1980, at 3, col. 1.
  \item 134. 630 F.2d at 962.
\end{itemize}}
would arise from the outcome of the case. The court noted that the National Traffic and Motor Vehicle Safety Act, provided that compliance with the Act would not exempt a manufacturer from design defect liability under state common law. This, the court predicted, could lead individual juries in various states to impose different design requirements and standards on automobile manufacturers. Such disparate treatment, in turn, would effectively make the automobile industry insurers of a vast number of auto accident victims. The court also feared that the problem of disparate treatment would make it impractical and perhaps impossible for the automobile industry to alter an automobile’s design in response to an adverse jury verdict, reasoning that another jury in a subsequent case might find the new design defective for a different reason. Furthermore, the court observed that establishing automobile safety requirements on a case by case basis would significantly affect national economic goals such as weight reduction of automobiles to conserve energy and competitive pricing to curb rising costs of automobiles. In conclusion, the court called for Congressional intervention, urging that the legislature was best suited to evaluate and possibly change the present system.

The Dawson court raised a number of issues important to the future of design defect litigation. Nevertheless, the court, in applying New Jersey law, affirmed the district court decision when it should have remanded it. The main flaw in the court’s analysis results from the use of the Suter test which, as Justice Clifford accurately predicted, presents the trier of fact with an unworkable test. The Dawson court summarized its perception of New Jersey law in the following passage:

If at the time the seller distributes a product, it is not reasonably fit, suitable and safe for its intended or reasonably foreseeable pur-

136. See 630 F.2d at 962.
137. Id. at 962.
138. Id.
139. See id. at 962-63. The alternate design would add a hefty $300.00 to the cost, as well as an additional 200-250 pounds to the weight of each vehicle. Id. at 954.
140. Id. at 963.
141. There is, for example, much debate concerning the significance, if any, that should be given to compliance with the federal automobile safety standards. See, e.g., Claybrook, Auto Protection: Beyond Federal Standards, TRIAL, Nov. 1980, at 38.
142. See supra text accompanying notes 95-115.
143. Suter, 81 N.J. at 184, 406 A.2d at 157 (Clifford, J., concurring).
poses so that users or others who may be expected to come in contact with the product are injured as a result thereof, then the seller shall be responsible for the ensuing damages. 144

As noted earlier, this language, taken from Suter, amounts to the first prong of the Barker inquiry—the consumer expectations test. 145 Yet the Dawson court utilized this language as the test the jury had to meet in its balancing of the risk-utility factors, thereby rejecting Chrysler’s contention that the plaintiff had not presented enough evidence to prevail under a risk-utility analysis, i.e., to prove that the alternative design proposed would, on balance, be preferable to the existing design. 146 It was this use of the Suter test that led the court to its consternation over the problems inherent in applying New Jersey’s test for design defect.

If the Dawson court had applied a defect inquiry similar to that used in Barker, it would have begun its analysis with the consumer expectations test. It then would have determined that it was inapplicable to Dawson since the plaintiff had no consumer expectations concerning the interior design of his vehicle prior to the accident. 147 Next, the court would have applied the risk-utility analysis, which enumerates the Wade-Keeton balancing factors. 148 Use of both steps of the defect analysis would have led to the conclusion that plaintiffs had not met their burden of proof. 149 Although the plaintiffs submitted a feasible alternative design, they failed to prove, in view of all the relevant Wade-Keeton factors, the superiority of their proposed design to Chrysler’s existing design. 150 Under this process, plaintiffs would have been required to balance the additional cost and weight of their proposed design against national and economic goals and the possibility that their alternative design might lead to more serious

144. 630 F.2d at 956 (quoting Suter v. San Angelo Foundry & Mach. Co., 81 N.J. 150, 169, 406 A.2d 140, 149 (1979) (footnote omitted)).
145. See supra text accompanying notes 67-69, 101-02.
146. See 630 F.2d at 959; see supra text accompanying notes 132-34.
147. See supra note 64 and text accompanying notes 106-12.
148. See supra text accompanying notes 71, 88-90.
149. This approach differs from that taken in Barker v. Lull Eng’g Co., 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978), which provided that the plaintiff need only show that the injury was proximately caused by the product; the burden would then be on the defendant to prove that, in light of the relevant factors, the product was not defective. See id. at 431, 573 P.2d at 455, 143 Cal. Rptr. at 237. No such shifting of the burden was contemplated by the New Jersey Supreme Court in Suter.
150. This is really nothing more than a negligence analysis, albeit with foreseeability of the risk of harm imputed to the manufacturer at the time of sale. See supra text accompanying notes 72-76.
injuries in more commonplace head-on collisions—\textsuperscript{151} all factors that
the court feared were not being dealt with under current products
liability law.\textsuperscript{152} The \textit{Dawson} court would then have affirmed the dis-
trict court decision only if it had been satisfied that these factors had
not undermined the feasibility of the proposed alternative design.
The proper analysis, therefore, would mitigate the anticipated prob-
lem of individual juries setting varying standards, and would provide
adequate consideration of the relevant factors for determining, on a
nationwide scale, the preferability of a proposed design over the ex-
isting design. In this way, a plaintiff would succeed only when the
court was satisfied that an alternative design was preferable.\textsuperscript{153}

Ultimately, if the proper analysis had been utilized, with the
burden of proof on the plaintiff, the \textit{Dawson} court would have found
that the plaintiffs failed to present sufficient evidence to establish the
superiority of their alternative design despite proof of its feasibil-
ity.\textsuperscript{154} The court, therefore, would have reversed the district court
decision, finding for the defendants instead of the plaintiffs. Con-
versely, if the burden of proof could have been shifted to the defen-
dant, as the \textit{Barker} court had done,\textsuperscript{155} the plaintiff would have had
to propose only a feasible alternative design; the burden would then
have been on the defendant to prove that the alternative design was
not preferable to the existing design.\textsuperscript{156} With the burden of proof on
the defendant, the \textit{Dawson} court could have decided the case in any
one of three ways. If the court had determined that the existing de-
sign was preferable to the proposed design, then it would have sus-

\begin{itemize}
\item \textbf{151.} See supra text accompanying notes 122-23.
\item \textbf{152.} See 630 F.2d at 962-63.
\item \textbf{153.} Indeed, most courts do recognize risk-utility analysis as the proper theory for decid-
ing design defect cases. See cases cited supra note 5.
\item \textbf{154.} In Wilson v. Piper Aircraft Corp., 282 Or. 61, 577 P.2d 1322 (1978), the plaintiff
alleged that an aircraft manufactured by the defendant was defectively designed, in that the
existing design employed a carburetor which could ice-up under certain conditions, causing the
aircraft’s engines to stall. The plaintiff offered alternative designs consisting of either a fuel
injection system or a carburetor heating system, both of which the court acknowledged were
feasible. The court held “that plaintiffs did not produce sufficient evidence that a reasonably
prudent manufacturer who was aware of the risks of carburetor icing would not have designed
this model of aircraft with a carbureted engine, or that substitution of a fuel injected engine
was practicable. On this ground alone, defendant is entitled to a new trial.” Id. at 68, 577 P.2d
at 1328 (footnote omitted).
\item Another significant factor is that the Oregon Supreme Court formulated the risk-utility
test in terms of the reasonableness of the manufacturer, exactly as the \textit{Suter} formulation. See
supra note 103 and accompanying text.
\item \textbf{155.} 20 Cal. 3d at 431, 573 P.2d at 455, 143 Cal. Rptr. at 237.
\item \textbf{156.} Id.
\end{itemize}
tained Chrysler's motion for judgment notwithstanding the verdict. If the court had determined that insufficient evidence existed at trial to sustain the defendant's burden of proof, the court either could have affirmed the district court decision or remanded the case if the jury instruction had been inadequate.

SUGGESTIONS FOR REFORM

The difficulties encountered by the Dawson court are common to many courts throughout the country that are struggling with risk-utility and consumer expectations principles, and their foundation in negligence, implied warranty, and strict liability theories.\textsuperscript{157} It is apparent that the Suter test, applied by the Dawson court, led the Dawson court to affirm the district court's decision, to the detriment of the defendant manufacturer. The Suter test likewise could lead another court to render a verdict unfair to a defendant-manufacturer. The California Supreme Court recently recognized the problems inherent in a consumer expectations/risk-utility design defect analysis. In Barker \textit{v.} Lull Engineering \textit{Co.},\textsuperscript{158} the court acknowledged that, in view of the "confusion" the Cronin \textit{v.} J.B.E. Olson \textit{Corp.}\textsuperscript{159} court had created, it had to clearly set forth the factors that the lower courts should consider in formulating jury instructions.\textsuperscript{160} The court also decided that it had to shift the burden of proof to the defendant to overcome "the onerous evidentiary burdens inherent in a negligence cause of action."\textsuperscript{161}

At the outset, New Jersey state courts and the federal courts

\begin{footnotesize}
\begin{enumerate}
\item[157.] See, e.g., Turner \textit{v.} General Motors Corp., 584 S.W.2d 844 (Tex. 1979). In Turner, the Texas Supreme Court not only rejected the use of a bifurcated consumer expectations/ risk-utility test, but also rejected the use of each test independently. See \textit{id.} at 849-51. The court rejected the consumer expectations test because of "the inclusiveness of the idea that jurors would know what ordinary consumers would expect in the consumption or use of a product, or that jurors would or could apply any standard or test outside that of their own experiences and expectations." \textit{Id.} at 851. The court likewise rejected the use of risk-utility factors due to the "difficulty of formulating a series of specific factors which the fact finders will be instructed to balance . . . ." \textit{Id.} at 849.

The court instead proposed the use of a jury instruction focusing on whether the product is "unreasonably dangerous as designed, taking into consideration the utility of the product and the risk involved in its use." \textit{Id.} at 847 n.1. It is submitted that this test, which does not allow for any further elaboration in a jury instruction, is even more unworkable than the Suter test since it badly mixes doctrines of strict liability and negligence without further explanation. \textit{See supra} text accompanying notes 98-115.

\item[158.] 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978).

\item[159.] 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972).

\item[160.] \textit{See} Barker, 20 Cal. 3d at 417, 573 P.2d at 446, 143 Cal. Rptr. at 228.

\item[161.] \textit{Id.} at 431, 573 P.2d at 455, 143 Cal. Rptr. at 237.
\end{enumerate}
\end{footnotesize}
called upon to interpret New Jersey law could overcome the confusion of the Suter test by recognizing it for what it is—a consumer expectations/risk-utility test patterned after Barker—and by applying it as the Barker test is applied. This would accomplish the goals of the New Jersey Supreme Court—namely, establishment of a minimum liability threshold below which no product can fall, and, for most design defect cases, application of a complete risk-utility analysis that incorporates all the relevant Wade-Keeton factors. This analysis requires either that the plaintiff prove that the alternative design is both feasible and more desirable than the allegedly defective product, analyzed as of the time of sale, or that the plaintiff just prove that the injury was proximately caused by the product defect, with the burden then on the defendant to prove that the product was not defective as of the time of sale.

Notwithstanding the clarity of the Barker design defect test, Barker should not be viewed as the ultimate evolution of the design defect analysis. A legislative solution, based solely on risk-utility principles, could be applied. Such an approach would overcome the remaining judicial confusion of the negligence-strict liability/warranty analysis and produce uniformity among the states adopting it. Also, such an approach would more closely approximate the balancing test that is at the heart of the design defect analysis.

The Model Uniform Product Liability Act (UPLA) embraces this approach, subject to the burden of proof switching to the defendant and presents a logical, coherent test for design defect

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162. See supra note 114.

163. Because the formulation of the risk-utility test can still differ among the various states, the Dawson court’s concerns that different juries could impose conflicting standards is still very real. This is another possible reason why, in addition to the formulation of the Suter test, the Dawson court felt compelled to ask Congress to enact a legislative solution to the problem. 630 F.2d at 962-63.

164. See infra text accompanying notes 172-80.

165. UPLA, supra note 6, 44 Fed. Reg. 62,714 (1979); see id. § 104(B) Analysis, 44 Fed. Reg. at 62,724.

166. The impact of shifting the burden of proof to the defendant has been debated. Compare Birnbaum, supra note 1, at 605-07 (impact is minimal) with Epstein, supra note 1, at 651 (any product-related accident is now presumptively actionable). As one commentator has noted: “It is hard to conceive of any product-related accident which would not permit some claim that the accident was caused by something in the product’s design.” Schwartz, supra note 1, at 466 (emphasis in original) (footnote omitted). This criticism, however, is based on the Barker formulation, which would only require a plaintiff to prove that the product proximately caused the injury before shifting the burden to the defendant. This note, however, proposes that the plaintiff also prove that a feasible design alternative exists before the burden switches to the defendant.
cases\textsuperscript{167} that is consistent with the negligence principles of the risk-utility analysis, and with the major goal of products liability—to relieve the plaintiff of the difficult evidentiary burden inherent in a negligence cause of action.\textsuperscript{168} The UPLA, in its broadest sense, rejects imposition of absolute liability on a manufacturer in favor of rules of liability founded on fault or blameworthiness.\textsuperscript{169} From this basis, the specific rules relating to design defect cases are formulated. The analysis accompanying the UPLA specifically notes the absence of any of the elements of a consumer expectations test for reasons of "economics and practicality."\textsuperscript{170} In addition to the fact that there are relatively few situations where consumer expectations are useful, the UPLA states that the consumer expectations test takes subjectivity to its most extreme end. Each trier of fact is likely to have a different understanding of abstract consumer expectations. Moreover, most consumers are not familiar with the details of the manufacturing process and cannot abstractly evaluate conscious design alternatives.\textsuperscript{171}

Without consumer expectations as an independent test, the UPLA provides that design defect cases are to be analyzed solely in terms of a formula based on pure negligence/risk-utility balancing of factors. Such an approach allows the trier of fact to find a product defective if, and only if, it was "unreasonably unsafe."\textsuperscript{172} Before concluding that a product is either defective or reasonably safe, the trier of fact is instructed to balance:

1. the likelihood that the product would cause the claimant's harm or similar harms, and the seriousness of those harms; against
2. the manufacturer's burden of designing a product that would have prevented those harms, and the adverse effect that alternative design would have on the usefulness of the product.\textsuperscript{173}

\textsuperscript{167} But see, Twerski & Weinstein, \textit{A Critique of the Uniform Product Liability Law—A Rush to Judgment}, 28 Drake L. Rev. 221, 227-33 (1979) (placing burden on plaintiff for foreseeability of risk and technological feasibility in a negligence framework imposes too large a burden; eliminating utility considerations in a risk-utility analysis creates an unworkable test; abandoning consumer expectations test eliminates a desirable threshold level of liability on defendant-manufacturer). The concerns of these authors would not be at issue, however, if the burden of proof is shifted properly to the defendant, as this note advocates.

\textsuperscript{168} See Barker, 20 Cal. 3d at 431, 573 P.2d at 455, 143 Cal. Rptr. at 237.

\textsuperscript{169} Introduction to UPLA, \textit{supra} note 6, 44 Fed. Reg. at 62,715.

\textsuperscript{170} UPLA, \textit{supra} note 6, \S 104(b) Analysis, 44 Fed. Reg. at 62,724.

\textsuperscript{171} Id.

\textsuperscript{172} Id. \S 104(B), 44 Fed. Reg. at 62,721.

\textsuperscript{173} Id. \S 104(B) Analysis, 44 Fed. Reg. at 62,723.
Two observations are in order. First, the UPLA specifically requires weighing the adverse effect of the proposed alternative design, a factor implicit in the Wade-Keeton criteria and found in Cepeda and Suter, yet not given full attention by the Dawson court. Arguably, this factor is part of the UPLA instruction because it is central to any design defect analysis if absolute liability is to be avoided and if liability is to be imposed on a manufacturer only where there is fault or blameworthiness.

A second objective of the UPLA vis à vis New Jersey law is met through the UPLA’s requirement that the trier of fact evaluate the risk-utility factors as of the time of manufacture and not as of the time of sale which is the approach embodied in the Wade-Keeton analysis adopted in New Jersey. The UPLA shifts the inquiry from reasonableness of a product’s design at the time of sale to the time when the manufacturer had control of the product and, unlike the Wade-Keeton analysis, does not impose upon the manufacturer the prospect of liability because of intervening technologies between manufacture and trial. Therefore, the UPLA, consistent with the notion of liability only with fault, looks only to circumstances up to and including the time of manufacture and does not impose liability for any subsequent modifications that could have been made to the product. This approach closely approximates the negligence principles underlying the risk-utility analysis, and therefore is preferable to the Wade-Keeton approach which looks to the time of sale and therefore is strict liability in nature.

Not all strict liability features should be abandoned. Although the UPLA does not advocate shifting the burden of proof to the defendant, the allocation of evidentiary burdens, advanced by the Barker court, should be retained, albeit in modified form. It is unduly burdensome for the plaintiff, as noted by the Barker court, to present all the factors inherent in a complex risk-utility analysis;

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175. See supra text accompanying note 103.
176. See supra text accompanying notes 147-55.
177. Failure to expressly address the shortcoming of the alternative design proposed by the plaintiff approaches an absolute liability analysis, since juries without knowledge of the proposed product’s disadvantages would focus only on the likelihood that the alternative design would have prevented the plaintiff’s injury.
179. See supra text accompanying notes 88-91.
180. See supra text accompanying notes 70-76.
181. 20 Cal. 3d at 431, 573 P.2d at 455, 143 Cal. Rptr. at 237.
182. See id.
many of those factors often involve technical matters peculiarly within the knowledge of the manufacturer. Yet, the Barker formulation appears to make almost all products cases actionable. To overcome this, the plaintiff should be required to propose a feasible alternative design with the burden on the defendant to prove that this alternative design was not practicable. This test does not shift the focus of the risk-utility test away from negligence principles because the goal of reducing the incidence of injuries and compensating the injured is still met. Using only risk-utility factors to analyze a product as it existed at the time of manufacture injects the concepts of reasonableness and due care into the inquiry and focuses on the factors that the manufacturer considers when designing a product. Furthermore, by holding the manufacturer to a negligence standard in all design defect cases, the manufacturer’s design choice trade-offs can be viewed in the same light as the risk-utility trade-offs brought out at trial. Finally, a design defect is neither random nor unpredictable but is the result of deliberate and documentable decisions on the part of the manufacturer. Since a plaintiff’s case can implicate an entire product line, the test should be based entirely on the fault or blameworthiness of the manufacturer and not on strict liability/warranty principles.

CONCLUSION

Products liability has come a long way since the days of MacPherson and Henningson. While lowering the privity barrier in both traditional negligence and warranty cases advanced plaintiffs’ damage recoveries for injuries caused by defective products, the strict liability notions foreshadowed in Escola and Greenman were most appropriately applied in manufacturing defect cases. Their use in design defect cases proved much more troublesome.

In a case of defective manufacture, comparing the alleged defective product with the nondefective manufactured product easily determined the presence or absence of defect; design defect cases, however, afforded no such easy comparison. In early design defect

183. Id.
184. See supra note 166.
cases both negligence and strict liability principles were applied. In *Greenman*, for example, Justice Traynor observed not only that consumer expectations should be examined, but also that it might be appropriate to determine if there was something inherently wrong with the product. When there were no actual consumer expectations concerning the viability of the product, however, "something wrong with the product," standing alone, provided for no comparison in a design case.

While section 402A provided the "unreasonably dangerous" modifier to the term defect, it also seemed to indicate to the *Cronin* court that a design would be defective *only* if it was unreasonably dangerous; this would introduce a negligence complexion to the analysis and impose a dual burden on plaintiffs. To the *Barker* court, however, retention of the consumer expectations language of section 402A was still useful. Although the manufacturer could be shielded from liability "so long as the product did not fall below the ordinary consumer's expectations as to the product's safety," a dual test consisting of risk-utility principles and a consumer expectations test, where strict liability principles were still applicable as a minimum test for liability in limited cases, could overcome this problem. The *Barker* court expressly sorted these two dissimilar tests into a workable test for the California courts, although the New Jersey Supreme Court, which also adopted both negligence and strict liability principles, did not.

In New Jersey, *Cepeda* continued the growing trend toward risk-utility principles, but the *Suter* court combined dissimilar strict liability and negligence principles and formulated a test that was unworkable from its inception. While the *Suter* court probably intended to fashion a *Barker*-like test, in practice it only half-succeeded. Because of the unworkable *Suter* design defect test, the *Dawson* court felt compelled to reach a decision, albeit hesitantly, for the plaintiff. As noted earlier, if the *Suter* test had been correctly formulated the *Dawson* court either would have reversed the district court or remanded the case for further consideration.

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189. 59 Cal. 2d at 61, 377 P.2d at 901, 27 Cal. Rptr. at 700; see supra text accompanying notes 39-40.
190. 20 Cal. 3d at 429-30, 573 P.2d at 456, 143 Cal. Rptr. at 236.
191. 20 Cal. 3d at 425, 573 P.2d at 451, 143 Cal. Rptr. at 233 (footnote omitted).
192. See id. at 429-30, 573 P.2d at 454, 143 Cal. Rptr. at 236. See supra text accompanying notes 61-63.
193. See supra text accompanying notes 98-115.
194. On remand, the trial court would instruct the jury to weigh the utility of the alter-
The lesson from New Jersey is clear. Design defect cases present difficult analytical problems for both court and jury, and if a court is to apply both consumer expectations/strict liability principles and risk-utility/negligence principles, it must clearly differentiate the application of the two dissimilar principles. Alternatively, the use of consumer expectations as an independent test for liability could be eliminated. In most situations, consumer expectations do not apply, and in those limited situations where they do, the subjectivity of jury speculation about consumer perception leaves little hope for consistent treatment. This provides little, if any, guidance to manufacturers. Indeed, the Dawson court was concerned about decisions varying from state to state, but the concern arose only because of the court's use of Suter's consumer expectations language in the risk-utility test then at hand.

Using risk-utility principles alone, as in the UPLA, with the burden on the defendant to prove the inferiority of the alternative, accomplishes the goals of holding a manufacturer liable only where there is fault and protecting the injured plaintiff from an often onerous burden of proof. In design defect cases, unlike manufacturing defect cases, a negligence standard encourages better behavior on the part of the manufacturer in his conscious product design choices. The trade-offs involved in a risk-utility analysis are similar to those a manufacturer must make in designing his product. Therefore, to best promote the objectives of products liability and the goals of a society dedicated both to technological advancement and consumer protection, the reasonableness of a manufacturer's design choices should be evaluated by using a risk-utility analysis. This focuses on the product as it exists at the time of manufacture, and places on the defendant the burden to prove that the plaintiff’s proposed alternative design is not superior to the product's existing design.

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native design proposed by the Dawsons against the risks that the alternate design would entail. By explicitly weighing all the pertinent risk-utility factors through a comprehensive jury instruction, the jury could very well conclude that the feasibility of the alternative design is outweighed by the increased risk the design would introduce. See supra text accompanying notes 147-56.

195. The Barker court, for example, clearly delineates when each of the parts of the two-prong test apply. See supra text accompanying notes 61-71.
196. 630 F.2d at 962-63.
197. See id. at 959.