University of Baltimore Law Review

Volume 16
Issue 1 *Fall 1986*

Article 2

1986

Product Liability in Maryland: Traditional and Emerging Theories of Recovery and Defense

Edward S. Digges Jr.
Piper & Marbury

John G. Billmyre
Law Offices of John G. Billmyre

UNIVERSITY OF BALTIMORE LAW REVIEW

Volume Sixteen **Fall 1986** **Number One**

PRODUCT LIABILITY IN MARYLAND: TRADITIONAL AND EMERGING THEORIES OF RECOVERY AND DEFENSE

Edward S. Digges, Jr.†
John G. Billmyre††

In recent years, product liability law in Maryland and across the country has placed greater responsibility on the manufacturers of products causing injury. In this article, the authors review the traditional theories of manufacturer liability and discuss the novel theories being advanced to expand that liability. Also considered are the defenses available to manufacturers, both traditional and emerging. The authors conclude with the prognosis that because the pendulum has swung so far in the direction of placing greater responsibility on manufacturers, further expansion of manufacturer liability is both unlikely and inappropriate.

TABLE OF CONTENTS

† B.A., 1968, Princeton University; J.D. 1971, University of Maryland School of Law; Partner, Digges, Wharton & Levin, Annapolis, Maryland.
†† B.A., 1981, Washington and Lee University; J.D., 1986, University of Maryland School of Law; Associate, Digges, Wharton & Levin, Annapolis, Maryland.

I. INTRODUCTION

Product liability law has changed dramatically since this law review published a symposium on product liability a decade ago[1] and a sequel article two years later.[2] Active jurists and lawmakers, in response to rapid technological advances, have formulated new causes of action in order to hold manufacturers of products liable for product-related injuries. An increasingly complex body of law has developed worthy of close examination and analysis.

This article begins with a discussion of the established theories of recovery under product liability law: strict liability, negligence, and warranty. It then discusses several emerging theories of recovery such as alternative liability, concert of action, enterprise liability, market share liability, and the concept applied to "Saturday Night Specials" under which there is liability for nondefective products which the manufacturer has reason to know will be misused. The article then examines the established defenses to product liability actions, including assumption of risk, misuse, alteration of product, and comparative fault. The article concludes with a discussion of emerging defenses, such as the sophisticated user defense, the informed intermediary defense, and the state of the art defense.

II. ESTABLISHED THEORIES OF RECOVERY

Until the mid-1960's, product liability law was dominated by the "general rule of nonliability."[3] Under this rule, manufacturers were held

1. *Products Liability Law Symposium*, 5 U. BALT. L. REV. 1 (1975).
2. Digges, Jr., *Product Liability in Maryland Revisited*, 7 U. BALT. L. REV. 1 (1977).
3. The "general rule of nonliability" developed in a circuitous manner. It seems reasonable that a manufacturer would owe a duty of care to all people who may come into contact with his product, provided that the manufacturer knows that his product will be dangerous unless carefully made. This might have been the foundation

liable for product-related injuries only if negligence or breach of warranty could be shown. In the mid-1960's the general rule of nonliability was replaced by the doctrine of strict liability in tort, under which manufacturers could be held liable even without a showing of negligence or breach of warranty. The strict liability doctrine has facilitated significantly plaintiff recovery in products cases. Under the doctrine, recovery is no longer dependent upon a showing of carelessness by the manufacturer, as required under negligence law, or upon a showing of contractual privity, as required under warranty law. With the emergence and rapid development of strict liability, less emphasis has been placed on the traditional negligence and warranty theories, although in practice these approaches continue to be important supplements to the strict liability doctrine.

A. Strict Liability

Strict liability in tort was applied first by the Supreme Court of California in *Greenman v. Yuba Power Products, Inc.*[4] In *Greenman*, the plaintiff was injured while using the wood lathe attachment to a power tool when a piece of wood he was shaving flew off the machine and struck him in the head.[5] Justice Traynor, writing for the court, stated that liability in product liability cases is not governed by the law of contract warranties, but by the law of strict liability in tort.[6] The purpose of strict liability, he explained, "is to ensure that the cost of injuries resulting from defective products are borne by the manufacturers that put such

---

on which product liability would have been built were it not for the opinion in Winterbottom v. Wright, 10 M & W 109, 152 Eng. Rep. 402 (1842). In *Winterbottom*, the court held that one who contracted with the Postmaster General to supply mail coaches and to keep them in repair could not be held liable to one who was injured when the coach proved defective. *Id.* at 116, 152 Eng. Rep. at 405. This holding was most likely due to the flawed theory upon which the plaintiff sought recovery and not to any consideration of duty of care. The plaintiff in *Winterbottom* argued that he should be awarded damages because of the contractual relationship between the manufacturer and the Postmaster General. *Id.* at 109-10, 152 Eng. Rep. at 402-03. The court rejected this argument because the plaintiff was a stranger to the contract. *Id.* at 114, 152 Eng. Rep. at 404-05. The court concluded that the only safe rule was to limit recovery to parties to the contract. *Id.* at 115, 152 Eng. Rep. at 405. Had the plaintiff argued that damages should be awarded because a manufacturer has a duty of care to all people who may come into contact with his product, this landmark case might have been decided differently. In subsequent cases, however, courts disregarded the facts of *Winterbottom* and the limited scope of its holding and applied the case as authority for the proposition that manufacturers could not be held liable for negligence in the making of goods except to immediate buyers or persons placed in charge of the property by the buyer. *See* Hartlove v. Fox, 79 Md. 514, 29 A. 601 (1894); *see also* State v. Garzell Plastics Indus., 152 F. Supp. 483 (E.D. Mich. 1957) (Chief Judge Lederle applied Maryland law in a case dealing with the duty of care owed to a remote buyer, tracing the development forward from *Winterbottom* to its status as of 1957, at which point the Maryland decisions still were "not entirely clear."). *Id.* at 483.

4. 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962).
5. *Id.* at 59, 377 P.2d at 898, 27 Cal. Rptr. at 698.
6. *Id.* at 63-64, 377 P.2d at 901, 27 Cal. Rptr. at 701.

products on the market rather than by injured persons who are powerless to protect themselves."[7] To recover for a product-related injury, the court held that it is sufficient for the plaintiff to prove: (1) that the product was being used in an intended manner when the injury occurred; (2) that the plaintiff was injured; (3) that the injury was the result of a defect in the product; (4) that the plaintiff was not aware of the defect; and (5) that the defect made the product unsafe for its intended use.[8]

Strict liability rapidly became the favored theory of recovery in product liability law because it eliminated the privity requirement of the traditional contractual warranty theory, as well as any showing of negligence other than the product defect itself.[9] Two years after *Greenman*, the doctrine of strict liability was adopted in section 402A of the Restatement (Second) of Torts.[10] Section 402A added the additional requirements that, for there to be liability, the product must be "unreasonably dangerous" as well as defective, and that the product "is expected to and does reach the consumer without substantial change in the condition in which it is sold."[11]

Despite the pivotal role of *Greenman* in creating both the strict liability theory and section 402A, the Supreme Court of California has refused to strictly apply section 402A by rejecting the requirement that the

---

7. *Id.* at 63, 377 P.2d at 901, 27 Cal. Rptr. at 701.
8. *Id.* at 63-64, 377 P.2d at 901, 27 Cal. Rptr. at 701. The *Greenman* opinion was foreshadowed by Justice Traynor's concurring opinion in Escola v. Coca-Cola Bottling Co., 24 Cal. 2d 453, 462, 150 P.2d 436, 440 (1944) (Traynor, J., concurring) ("[P]ublic policy demands that responsibility be fixed where it will most effectively reduce the hazards to life and health inherent in defective products that reach the market."). *Id.*
9. Commentators have suggested that strict liability in tort will continue to be the preeminent theory of recovery. One scholar who analyzed the development of product liability has gone as far as to suggest that: "[w]hen applicable, product strict liability should absorb negligence liability *in toto* and no further negligence pleading and litigation should be permitted once it is determined that product strict liability applies." Little, *Rationalization of The Law of Product Liability*, 36 U. FLA. L. REV. 1, 35-36 (1984). Built into the author's suggestion is the assumption that the elements of this new form of strict liability would be at least as inclusive as those of negligence. *Id.*
10. Section 402A provides:

> (1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if
> (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.

RESTATEMENT (SECOND) OF TORTS § 402A(1), (2) (1965).
11. *Id.*

product be "unreasonably dangerous"[12] and has relaxed several of the *Greenman* requirements for strict liability. In *Luque v. McLean*,[13] the court held that a plaintiff need not prove that he was unaware of the defect; instead, the burden is on the defendant to establish that the plaintiff had a culpable lack of awareness of the defect.[14] In *Cronin v. J.B.E. Olson Corp.*,[15] the court held that a plaintiff does not have to prove that the product was unsafe for its intended use, but merely that it was unsafe for a reasonably foreseeable use.[16]

In *Phipps v. General Motors Corp.*,[17] the Court of Appeals of Maryland adopted the strict liability formula set forth in section 402A for products liability cases.[18] In *Sheehan v. Anthony Pools*,[19] the Court of Special Appeals of Maryland stated that to recover under a strict liability theory the Restatement and Maryland law require one to establish: (1) that there had been a sale of a product; (2) that the seller released the product from its possession or control in a defective condition; (3) that the product was in a defective condition that was unreasonably dangerous to the user or consumer; (4) that the defective condition caused injury; and (5) that the product was expected to reach, and in fact, it did reach the consumer without substantial change in its condition.[20] It seems unlikely that Maryland will relax the requirements for a strict liability claim in the manner that California courts have done. In *Singleton v. International Harvester Co.*,[21] the United States Court of Appeals for the Fourth Circuit, applying Maryland law, considered and rejected the change in the defect standard espoused in *Barker*.[22] Thus, unlike California, which has recast the strict liability cause of action to impose greater liability than originally considered appropriate under *Greenman* and the Restatement, Maryland has refined the Restatement provision into clearly delineated elements.

1. "Sale of a Product" Requirement

The "sale of a product" requirement for strict liability has generated considerable debate in several respects. First, courts have had to deter-

12. *See* Cronin v. J.B.E. Olson Corp., 8 Cal. 3d 121, 129, 501 P.2d 1153, 1159, 104 Cal. Rptr. 433, 439 (1972) (stating that the unreasonably dangerous requirement crept into California law by its inclusion in § 402A).
13. 8 Cal. 3d 136, 501 P.2d 1163, 104 Cal. Rptr. 443 (1972).
14. *Id.* at 145-46, 501 P.2d at 1170, 104 Cal. Rptr. at 450.
15. 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972).
16. *Id.* at 126, 501 P.2d at 1157, 104 Cal. Rptr. at 437.
17. 278 Md. 337, 363 A.2d 955 (1976). In *Phipps*, the court found General Motors Corporation could be held strictly liable for injuries arising from a defective accelerator that became stuck without warning, causing the automobile to accelerate suddenly. *Id.* at 352-53, 363 A.2d at 963.
18. *Id.* at 353, 363 A.2d at 963.
19. 50 Md. App. 614, 440 A.2d 1085 (1982), *aff'd*, 295 Md. 285, 455 A.2d 434 (1983).
20. *Id.* at 620, 440 A.2d at 1089.
21. 685 F.2d 112 (4th Cir. 1981).
22. *Id.* at 114.

mine what constitutes a "sale" as opposed to a service.[23] Appellate courts that have addressed the sale requirement have almost unanimously refused to extend strict product liability to pure service transactions,[24] but have construed the term "sale" broadly to include any activity intended to lead to a sale. Strict liability has been applied to injuries arising from the demonstration of an airplane,[25] the lease of a truck,[26] the giving of a free sample to a prospective customer,[27] and the furnishing of a free lacquer reducer after a paint sale.[28]

Second, courts have had to determine whether a particular good or substance is a product. The analysis is relatively simple when consider-

---

23. Four issues have been identified as arising out of the "sale of a product" requirement: (1) whether the injury is the result of a "product" or a "service" (as where a plumber installs a water heater and may be dealing in a product — the water heater, or a service — the installation of the heater); (2) whether the transaction involves a sale (as where a beauty salon furnishes a permanent wave solution or a hospital furnishes gowns and needles); (3) whether nonprofessional services should be treated as professional services in sales-services situations (as where an optometrist or hospital is involved as opposed to a beauty salon); and (4) whether the sales-service distinction should be treated the same under strict tort liability as under cases premised on the Uniform Commercial Code. Powers, *Distinguishing Between Products and Services In Strict Liability*, 62 N.C.L. REV. 415, 415-17 (1984).

    The issue of what constitutes a product has raised some intriguing questions. For instance, the United States Supreme Court has held that a man-made microorganism that is actually a form of life may be considered a patentable subject matter. Diamond v. Chakrabarty, 447 U.S. 303 (1980). Whether that organism would be subject to strict liability as a "product" remains to be determined.

24. *See, e.g.*, La Rossa v. Scientific Design Co., 402 F.2d 937, 942-43 (3d Cir. 1968) (no strict liability where defendant had contract to design, engineer, and supervise construction of plaintiff's plant despite the fact that defendant caused toxic dust to be released from the plant causing cancer in plaintiff's decedent, an employee of the plant); Hoffman v. Simplot Aviation, 197 Idaho 32, 38, 539 P.2d 584, 587 (1975) (no strict liability where defendant's employees repaired, inspected, and tested the plaintiff's aircraft which subsequently crashed because defective bolt was overlooked during inspection); Hoover v. Montgomery Ward & Co., 270 Or. 498, 500, 528 P.2d 76, 77 (1974) (no strict liability where defendant negligently installed a nondefective tire on plaintiff's car). *See also* Powers, *supra* note 23, at 419. After the author examines the various arguments for excluding pure services from strict liability, he concludes that the selective imposition of strict liability to product transactions could be justified only by the difficulties of proof in product cases. *Id.* at 434. He suggests that "a court should resolve hybrid sales-services cases according to *its* understanding of the rationale for treating products cases distinctly." *Id.* (emphasis added).

25. First Nat'l Bank of Mobile v. Cessna Aircraft Co., 365 So. 2d 966 (Ala. 1978); *cf.* Delaney v. Towmotor Corp., 339 F.2d 4 (2d Cir. 1964) (extending strict liability in a case involving the demonstration of a fork lift).

26. Cintrone v. Hertz Truck Leasing and Rental Serv., 45 N.J. 434, 212 A.2d 769 (1965).

27. McKisson v. Sales Affiliates, Inc., 416 S.W.2d 787 (Tex. 1967).

28. Perfection Paint and Color Co. v. Konduris, 147 Ind. App. 106, 258 N.E.2d 681 (1970) (where paint failed to adhere and lacquer provided free of charge was ignited by hot water heater causing death, the supplier was held to have placed the article in the "stream of commerce" regardless of whether sale occurred).

ing an item traditionally viewed as a product. For example, aircraft,[29] chemicals,[30] drugs,[31] machinery,[32] and motor vehicles[33] are goods easily identified as products for the purposes of strict liability.[34] However, electricity,[35] animals,[36] charts,[37] houses,[38] and computer programs,[39] are items not traditionally viewed as products and present subtle issues for courts to address.

Courts considering whether a particular item or substance qualifies as a product typically focus on the public policy rationale underlying the imposition of strict liability. Under this public policy approach, courts place weight on various factors, including the manufacturer's conscious introduction of the product into the "stream of commerce," the need for consumer protection against an unknown manufacturer or seller, the need to spread the cost of injury, and the difficulty of proof of negligence.[40] Some courts refuse to commit to a stringent definition of "prod-

29. *See* Righy v. Beech Aircraft Co., 548 F.2d 288 (10th Cir. 1977); First Nat'l Bank of Mobile v. Cessna Aircraft Co., 365 So.2d 966 (Ala. 1978).
30. *See* Ferebee v. Chevron Chem. Co., 552 F. Supp. 1293 (D.D.C. 1982) (applying Maryland law), *aff'd* 736 F.2d 1529 (D.C. Cir. 1984).
31. *See* Werner v. Upjohn Co., Inc., 628 F.2d 848 (4th Cir. 1980); Weinberger v. Bristol-Myers Co., No. M-85-5007, slip op. (D. Md. Dec. 4, 1986); Fellows v. USV Pharma. Corp., 502 F. Supp. 297 (D. Md. 1980); Chambers v. G.D. Searle & Co., 441 F. Supp. 377 (1975).
32. *See* Holman v. Mark Indus., 610 F. Supp. 1195 (D. Md. 1985) (aerial lift); Troja v. Black & Decker Mfg. Co., 62 Md. App. 101, 488 A.2d 516 (1985) (radial arm saw); Banks v. Iron Hustler Corp., 59 Md. App. 408, 475 A.2d 1243 (1984) (conveyer belt on industrial machine); American Laundry Mach. Indus. v. Horan, 45 Md. App. 97, 412 A.2d 407 (1980) (industrial clothes dryer).
33. Phipps v. General Motors Corp., 278 Md. 337, 363 A.2d 955 (1976) (car); Harley-Davidson Motor Co. v. Wisniewski, 50 Md. App. 339, 437 A.2d 700 (1982) (motorcycle); Tensen v. American Motors Corp., 50 Md. App. 226, 437 A.2d 242 (1981) (car).
34. Similarly, a court easily determined that a multi-tiered parking lot is not a product and that injuries sustained from a fall from an upper tier are not compensable under strict product liability. Lowrie v. City of Evanston, 50 Ill. App. 3d 376, 365 N.E.2d 923 (1977).
35. *See, e.g.*, Public Serv. Indus., Inc. v. Nichols, 494 N.E.2d 349 (Ind. App. 1986); Schriner v. Pennsylvania Power & Light Co., 348 Pa. Super. 177, 501 A.2d 1128 (1985); United Pacific Ins. Co. v. Southern Cal. Edison Co., 163 Cal. App. 3d 700, 209 Cal. Rptr. 819 (1985).
36. *See* Sease v. Taylor's Pets, 70 Or. App. 110, 700 P.2d 1054 (1985); Beyer v. Aquarium Supply Co., 94 Misc. 2d 336, 404 N.Y.S.2d 778 (1977).
37. *See* Brocklesby v. United States, 767 F.2d 1288 (9th Cir. 1985).
38. Bastian v. Wausau Homes, Inc, 620 F. Supp. 947 (D.C. Ill. 1985) (suit against builder-vendor of mass produced houses); Kaneko v. Hilo Coast Processing, 65 Haw. 447, 654 P.2d 343 (1982) (suit against manufacturer of prefabricated building).
39. To date, computer software programs have generated relatively little litigation. Nevertheless, given the prevalence of computers in contemporary society and the increasing reliance on computer systems, it is likely that litigation will arise. Indubitably, the question will arise whether a software program is a product or simply the provision of a service.
40. Those types of policy arguments were articulated in many of the early cases which imposed strict liability on manufacturers. *See* Greenman v. Yuba Power Prod., 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962) (costs of injuries should be borne

uct" in order to avoid burdening future courts with a definition that is unable to keep pace with technology.[41] Although attractive on its face, this *ad hoc* approach might lead to a confusing series of inconsistent opinions.

Appellate decisions involving electricity, charts, and animals illustrate the interlocking nature of the issues generated by the "sale of a product" requirement and the difficulty jurists have in resolving these issues. Case authority indicates that electricity may be a product.[42]As explained by one court:

> [Electricity] is a form of energy that can be made or produced by men, confined, controlled, transmitted and distributed to be used as an energy source for heat, power and light and is distributed in the stream of commerce. The distribution might well be a service, but the electricity itself, in the contemplation of the ordinary user, is a consumable product.[43]

This court would apply strict liability when one is injured by distributed electricity, which is considered a product, but not when one is injured by electricity in transmission, which is considered a service.[44]

---

by the manufacturer which put the product on the market); Seely v. White Motor Co., 63 Cal. 2d 9, 403 P.2d 145, 45 Cal. Rptr. 17 (1965) (it is equitable to shift the risk of injury to manufacturers because they are better able to bear the loss); Markle v. Mulholland's, Inc., 265 Or. 259, 509 P.2d 529 (1973) (consumer expectation that product is safe for intended use is better protected by strict liability than by negligence or warranty theories); McCormack v. Hankscraft Co., 278 Minn. 322, 154 N.W.2d 488 (1967) (proof of defect is sufficient because it is often impossible for plaintiff to prove specific acts of negligence); Dippel v. Sciano, 37 Wis. 2d 443, 155 N.W.2d 55 (1967) (rule of strict liability relieves plaintiff of proving specific acts of negligence and protects him from certain defenses).

41. In Kaneko v. Hilco Coast Processing, for example, the Supreme Court of Hawaii stated:

> In order to cope with technological advances, we decline to establish a firm definition of "product" to which the doctrine of strict liability applies. Rather, a product should be determined on a case-by-case basis with that determination guided by the applicable case law, the public policy considerations underlying strict liability, the comments to the Restatement (Second) of Torts, and the Model Uniform Products Liability Act.

65 Hawaii 447, 455, 654 P.2d 343, 349 (1982).

42. *See* Public Serv. Indus., Inc. v. Nichols, 494 N.E.2d 349 (Ind. App. 1986) (allowing use of strict liability where dairy farmers' herds were injured by "stray" electricity); United Pac. Ins. Co. v. Southern Cal. Edison Co., 163 Cal. App. 3d 700, 209 Cal. Rptr. 819 (1985) (explaining in dictum that electricity is a "product" once it is placed in the stream of commerce by transferring property or some property right); Smith v. Home Light and Power Co., 695 P.2d 788 (Colo. App. 1984) (electricity found to be a product).

43. Schriner v. Pennsylvania Power & Light Co., 348 Pa. Super. 177, 187, 501 A.2d 1128, 1133 (1985) (quoting Ransome v. Wisconsin Elec. Power Co., 87 Wis. 2d 605, 610, 275 N.W.2d 641, 643 (1979)).

44. Hills v. Ozark Border Elec. Co-Op, 710 S.W.2d 338 (Mo. App. 1986) (opinion does not expressly state that strict liability applies to distributed electricity, but makes that assumption in determining that plaintiffs failed to establish a submissible case); Public Serv. Ind., Inc. v. Nichols, 494 N.E.2d 349 (Ind. App. 1986) (holding that

In *Brocklesby v. United States*,[45] the United States Court of Appeals for the Ninth Circuit determined whether a chart that graphically depicted all pertinent aspects of an airplane instrument approach procedure was a product.[46] The court held that the chart was a product because it was developed for commercial purposes from Federal Aviation Administration specifications and was mass produced and mass marketed.[47]

Whether an animal is a product has also generated considerable debate and conflicting decisions by courts ostensibly applying the same or similar product analysis. Historically, courts generally held that living organisms were not products within the scope of strict liability because the doctrine required that a product's nature be fixed when it leaves the control of the manufacturer or seller.[48] The "fixed nature" requirement is based on section 402A which requires that the product reach the ultimate user or consumer without substantial change.[49] Unlike a product

---

"stray" electricity was an "escaped" product that caused harm so that strict liability was not imposed on the provision of a service); Smith v. Home Light and Power Co., 695 P.2d 788 (Colo. App. 1984) (accepting that electricity is a product and its distribution is a service, the court would not impose strict liability where family members were electrocuted when they touched a portable grain auger to an overhead powerline); Kentucky Util. Co. v. Auto Crane Co., 674 S.W.2d 15 (Ky. Ct. App. 1983) (strict liability did not apply where crane operator was injured when his crane touched overhead power lines; Kentucky has never adopted strict liability standard to transmission of electricity because electricity is a public necessity).

45. 767 F.2d 1288 (9th Cir. 1985).

46. Brocklesby v. United States, 767 F.2d 1288, 1294-95 (9th Cir. 1985).

47. *Id.* at 1294-95 (quoting Aetna Casualty & Sur. Co. v. Jeppesen & Co., 642 F.2d 339 (9th Cir. 1981)). The United States Court of Appeals for the Ninth Circuit stated:

> Jeppesen approach charts depict graphically the instrument approach procedure for the particular airport as the procedure has been promulgated by the Federal Aviation Administration (FAA) after testing and administrative approval. The procedure includes all pertinent aspects of the approach . . . . The specifications prescribed are set forth by the FAA in tabular form. Jeppesen acquires the FAA form and portrays the information therein on a graphic approach chart. This is Jeppesen's "product."

Aetna Casualty, 642 F.2d at 341-42 (applying Nevada law).

48. *See* Kaplan v. C Lazy U Ranch, 615 F. Supp. 234, 238 (D. Colo. 1985). The Kaplans were guests at a ranch when Ann Kaplan injured herself by falling off a horse. In addition to negligence counts, the Kaplans asserted that the horse and saddle were "products" for the purpose of strict liability. The court stated:

> Plaintiffs' contention that a horse and saddle constitute a "product," while a novel idea, is rebutted by case law and the basic underlying policies of the doctrine of strict products liability. Generally, living things do not constitute "products" within the scope of the strict tort liability doctrine which requires that a product's nature be fixed when it leaves the manufacturer's or seller's control.

Id. at 238. For other opinions supporting the proposition that animals are not products because they do not have a fixed nature, see Anderson v. Farmers Hybrid Cos., 87 Ill. App. 3d, 493, 408 N.E.2d 1194 (1980) (unbred female pigs are not products); Whitmer v. Schneble, 29 Ill. App. 3d 659, 331 N.E.2d 115 (1975) (Doberman Pinscher that bit child was not a product).

49. *See* RESTATEMENT (SECOND) OF TORTS, § 402A(1)(b) (1965) (providing for strict liability in action by ultimate user or consumer if the product "is expected to and does reach the user or consumer without substantial change in the condition in which it is sold").

that leaves the manufacturer or seller in a set form, living organisms such as animals are affected more easily by environmental changes and other forces beyond the control of the manufacturer or seller. Therefore, their characteristics may be influenced more by the purchaser than by the manufacturer or seller. It was for this reason that the Appellate Court of Illinois refused to extend strict product liability to a dog in *Whitmer v. Schneble*,[50] and to fetal pigs in *Anderson v. Farmers Hybird Cos.*.[51]

Some courts have applied the doctrine of strict liability to animals.[52] In a case involving a diseased hamster, *Beyer v. Aquarium Supply Co.*,[53] a New York trial court looked to the public policy underlying strict liability and compared animals to defective products.[54] The court observed that the purpose of strict liability is to distribute fairly the inevitable consequences of commercial activity and to promote the marketing of safe products.[55] The court stated that one who places a diseased animal in the stream of commerce should be accountable for his actions and concluded:

> The risk presented to human well being by a diseased animal is as great and probably greater than that created by a defective manufactured product and in many instances, for the average consumer, a disease in an animal can be as difficult to detect as a defect in a manufactured product.[56]

---

50. 29 Ill. App. 3d 659, 663-64, 331 N.E.2d 115, 119 (1975).
51. 87 Ill. App. 3d 493, 500-01, 408 N.E.2d 1194, 1199 (1980). The *Anderson* opinion illustrates the product analysis used by some courts. The *Anderson* court reasoned:
    > While a "product" may be unchanged from its natural state, viable, and not the result of manufacturing processes, it must be of a fixed nature at the time it leaves the seller's control. Thus, while blood or mushrooms, both sold in their natural state, may be products, their nature, as products, is fixed, or is intended to be fixed, prior to the time they enter the stream of commerce. If properly packaged, they are not easily affected by internal or external processes in the same way a living creature is so affected. Living creatures, such as swine in the instant case, are by their nature in a constant process of internal development and growth and they are also participants in a constant interaction with the environment around them as part of their development. Thus, living creatures have no fixed nature in the same sense as the blood or the mushrooms can be said to have a fixed nature at the time they enter the stream of commerce.

    Id.
52. Sease v. Taylor's Pets, Inc., 70 Or. App. 110, 700 P.2d 1054 (1985). Beyer v. Aquarium Supply Co., 94 Misc. 2d 336, 404 N.Y.S.2d 778 (1977). One commentator believes that animals should be included selectively under product liability law. *See* Comment, *The Applicability of Strict Products Liability to Sales of Live Animals*, 67 IOWA L. REV. 803 (1982). The author of this comment critically examines the trend which existed at that time to exclude animals from strict product liability. He concludes that animals should not be excluded categorically from product liability law in Illinois because such categorical exclusion misapplies product liability limitations and inadequately accommodates public policy. *Id.* at 814, 824-25.
53. 94 Misc. 2d 336, 404 N.Y.S.2d 778 (1977).
54. Beyer v. Aquarium Supply Co., 94 Misc. 2d 336, 337, 404 N.Y.S.2d 778, 779 (1977).
55. *Id.*
56. *Id.*

The *Beyer* court based its decision on a policy, although unarticulated, that marketing and distribution are the most crucial, if not the dispositive factors in resolving the product issue. The Court of Appeals of Oregon reached a similiar conclusion in *Sease v. Taylor's Pets, Inc.*[57] In *Sease* the doctrine of strict liability applied to a rabid skunk because the court found that the Oregon product liability statute supported a definition of a product that includes animals.[58]

The Court of Appeals of Maryland has yet to address squarely the "sale of a product" requirement in a strict product liability case. In *Anthony Pools v. Sheehan*,[59] however, the court expressly adopted the opinion of the court of special appeals[60] which assumed that strict liability applied to the sale and installation of a swimming pool and diving board without analyzing whether this transaction was the sale of a product or the provision of a service.[61] Despite the lack of Maryland law on the "sale of a product" requirement, it is likely that Maryland will approach the sale of a product as other jurisdictions have by focusing on the nature of the actual transaction and on the public policy reasons underlying the imposition of strict liability in product liability cases.

2. Defect Requirement

The gravamen of any product liability claim is proof that a product was defective. Determining what constitutes a defect has generated confusion and debate.[62] There are three forms of defects, each with a different requirement of proof. The defect may be one of manufacturing, design, or adequacy of warning.

a. manufacturing defect

Manufacturing defects exist when a product fails to conform to a

57. 74 Or. App. 110, 700 P.2d 1054 (1985). The court noted that the Oregon product liability statute "cover[ed] products that are subject to both natural change and intentional alteration" and provided a defense to the seller or manufacturer that the product had changed substantially since its sale or lease. *Id.* at 117, 700 P.2d at 1058.

58. *Id.*

59. 295 Md. 285, 299, 455 A.2d 434, 441 (1983).

60. 50 Md. App. 614, 620-26, 440 A.2d 1085, 1089-92 (1982), *aff'd*, 295 Md. 285, 455 A.2d 434 (1983).

61. *Id.*

62. One observer has noted:

> At the very core of a product liability regime is the definition ascribed to the term 'defective,' since proof of defectiveness is the touchstone of any claim. In keeping with its central importance, the problem of defining defectiveness has exercised the minds of legal scholars perhaps more than any other aspect of product liability law. (footnote omitted)

Clark, *The Conceptual Basis of Product Liability*, 48 MOD. L. REV. 325, 325 (1985). *See also*, Traynor, *The Ways and Meanings of Defective Products and Strict Liability*, 32 TENN. L. REV. 363, 373 (1965) ("[N]o single definition of defect has proved adequate to define the scope of the manufacturer's strict liability in tort for physical injuries. . . .").

manufacturer's specifications.[63] Examples of manufacturing defects include the absence of components in a finished product,[64] the use of imperfect raw materials,[65] and the inclusion of foreign substances in food or drink.[66] In each case, the final product is different than the product the manufacturer intended to produce. An action based on a manufacturing defect requires a comparison of the allegedly defective product with that product's specifications.[67] Proof of a manufacturing defect requires little more than evidence that the product deviates from the manufacturer's own standards.[68] The manufacturer's defense focuses on other potential causes of the deviation from specifications such as misuse, alteration of a product, or some other act outside of the control of the manufacturer.

b. design defect

Design defects present more complex questions as to what constitutes a defect.[69] A design defect potentially exists when a product is not "reasonably safe" for its intended purpose because of the particular way it is designed. A product or its particular condition is not reasonably safe if it poses "inherently unreasonable risks" or the degree of risk presented by the product's design outweighs its utility.[70] Examples of inherently unreasonable risks include a defective steering mechanism that causes a car to swerve off the road;[71] an automobile drive shaft that separates from the automobile when driven in a normal manner;[72] a paydozer without rearview mirrors;[73] new automobile brakes that suddenly fail;[74] an automobile accelerator that sticks without warning.[75] In *Phipps v.*

63. *See* Phipps v. General Motors Corp., 278 Md. 337, 344, 363 A.2d 955, 959 (1976); Singleton v. International Harvester Co., 685 F.2d 112, 115 (4th Cir. 1981).
64. Van Slyke v. Pargas, Inc., 69 A.D.2d 927, 415 N.Y.S.2d 307 (1979) (failure to properly odorize natural gas so that a leak could be detected before an explosion).
65. Probus v. K-Mart, Inc., 794 F.2d 1207 (7th Cir. 1986) (defect in use of a particular plastic as an end cap on a metal extension ladder); Ford Motor Co. v. Conrardy, 29 Colo. App. 577, 488 P.2d 219 (1971) (nonmetallic particles in steering mechanism of car causing mechanism to break); Dunham v. Vaughan & Bushnell Mfg. Co., 42 Ill. 2d 339, 247 N.E.2d 401 (1969) (defective steel causing hammer to chip upon contact); Taylor v. Carborundun Co., 107 Ill. App. 2d 12, 246 N.E.2d 898 (1969) (defect in composition of grinding wheel causing it to shatter).
66. Obieli v. Campbell Soup Co., 623 F.2d 668 (10th Cir. 1980) (defect where cockroach was discovered in a can of soup).
67. Singleton v. International Harvester Co., 685 F.2d 112, 115 (4th Cir. 1981).
68. *See* Phipps v. General Motors Corp., 278 Md. 337, 344-45, 363 A.2d 955, 959 (1976).
69. As the court noted in *Phipps*, "[w]here . . . the alleged defect is the result of the design process so that the product causing injury was in a condition intended by the manufacturer, the test [for strict liability] has proved more difficult to apply." *Id.*
70. *Id.* at 345, 363 A.2d at 959.
71. Henningsen v. Bloomfield Motors, Inc., 32 N.J. 358, 161 A.2d 69 (1960).
72. Elmore v. American Motors Corp., 70 Cal. 2d 578, 451 P.2d 84, 75 Cal. Rptr. 652 (1969).
73. Pike v. Frank G. Hough Co., 2 Cal. 3d 465, 467 P.2d 229, 85 Cal. Rptr. 629 (1970).
74. Sharp v. Chrysler Corp., 432 S.W.2d 131 (Tex. Civ. App. 1968).
75. *Phipps*, 278 Md. at 345-46, 363 A.2d at 959.

General Motors Corp.,[76] the Court of Appeals of Maryland characterized situations such as those noted above as involving inherently unreasonable risks of such magnitude that there is no need to consider the utility of the design.[77] The court stated that "[c]onditions like these, even if resulting from the design of the products, are defective and unreasonably dangerous without the necessity of weighing and balancing the various factors involved."[78]

An "inherently unreasonable risk" type of design defect is similar to a manufacturing defect because in both the product does not function as the manufacturer intended. Furthermore, both are determined in light of consumer expectations.[79] In the case of a design defect the product must be "unreasonably dangerous," and in the case of a manufacturing defect the product must be in a "defective condition," when the seller places the product on the market.[80] According to the Restatement (Second) of Torts, both the defective condition and the unreasonably dangerous requirements are met if the condition causing the injury is not one that would be contemplated by an ordinary consumer.[81]

If the design defect is not inherently unreasonable, balancing the product's degree of risk against its utility is necessary. After reviewing several potential tests for defectiveness in these cases, the Supreme Court of Tennessee recently concluded that "it is an area of law characterized by much confusion and little agreement."[82] Courts differ on whether the focus should be on the product's condition, the manufacturer's conduct, the manufacturer's knowledge (whether real or constructive), the consumer's knowledge, or on various combinations thereof.[83]

---

76. 278 Md. 337, 363 A.2d 955 (1976).
77. Phipps v. General Motors Corp., 278 Md. 337, 345-46, 363 A.2d 955, 959 (1976).
78. *Id.* at 346, 363 A.2d at 959.
79. *Id.* at 344, 363 A.2d at 959. *See* RESTATEMENT (SECOND) OF TORTS § 402A comment g (1965) (A product is in a defective condition if, at the time it leaves the seller's hands, it is "in a condition not contemplated by the ultimate consumer, which will be unreasonably dangerous to him.").
80. *Id.* at 344-45, 363 A.2d at 959.
81. *Id.* A product may be dangeorus yet not defective. In Kelley v. R.G. Indus., 304 Md. 124, 497 A.2d 1143 (1985), the plaintiff claimed that a handgun used to shoot him in an armed robbery was both defective and unreasonably dangerous because it was capable of being used during a crime to inflict harm. The court rejected plaintiff's argument that the handgun was defective, noting that a gun's dangerous propensities were inherent in its normal function. By way of example, the court stated:

> A handgun is dangerous because its normal function is to propel bullets with deadly force. That alone is not sufficient for its manufacturer to incur liability under § 402A. For the handgun to be defective, there would have to be a problem in its manufacture or design, such as a weak or improperly placed part, that would cause it to fire unexpectedly or otherwise malfunction.

Id. at 136, 497 A.2d at 1148.
82. Gann v. International Harvester Co. of Canada, 712 S.W.2d 100, 104-05 (Tenn. 1986) ("In design defect cases, some jurisdictions have adopted the risk-utility test, while others have adopted the reasonably prudent manufacturer test.").
83. *Id.* at 104. For a discussion of the various tests that courts apply in design defect

Maryland has adopted the "risk-utility" test for determining product defectiveness. In *Phipps*,[84] the Court of Appeals of Maryland explained that "whether a particular design is defective may depend upon a balancing of the utility of the design and other factors against the magnitude of the risk."[85] Under this test, seven factors are considered when determining whether a product is reasonably safe. The factors are:

> (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

---

cases, see Wade, *On Product "Design Defects" and Their Actionability*, 33 VAN. L. REV. 551 (1980); Birnbaum, *Unmasking the Test for Design Defect: From Negligence (to Warranty) to Strict Liability to Negligence*, 33 VAN. L. REV. 593 (1980). The two principle tests are the "consumer expectation test" and the "risk-benefit" test. Under the consumer expectation test, a product is defective if, at the time it leaves the hands of the seller, it is in a condition not contemplated by the consumer and unreasonably dangerous to him. Barnes v. Vega Indus., 234 Kan. 1012, 676 P.2d 761 (1984) (holding that unreasonably dangerous be defined in terms of the consumer expectation test). Under the risk-benefit test a product is defective if (1) it fails to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner, or (2) the risk of danger inherent in a particular design outweighs the benefits of that design. Barker v. Lull Eng'g Co., 20 Cal. 3d 413, 432, 573 P.2d 443, 455-56, 143 Cal. Rptr. 225, 237 (1978). Thus, this approach gives a plaintiff two "bites of the apple." In Singleton v. International Harvester Co., 685 F.2d 112 (4th Cir. 1981), the court was urged to adopt the *Barker* "double bite" test, but refused to do so. *Id.* at 114. The court stated that under Maryland law, the test for a design defect in situations where there is not an inherently unreasonably risk is the risk-utility test. *Id.* at 115. *See infra* notes 79-84 and accompanying text. The test does not incorporate a consideration of consumer expectation.

84. 278 Md. 337, 363 A.2d 955 (1976).

85. Phipps v. General Motors Corp., 278 Md. 337, 348, 363 A.2d 955, 961 (1976). Similarly, the Fourth Circuit, relying on *Phipps* in applying Maryland law in a product liability case, explained that "[i]n a design defect case the issue is whether a manufacturer, knowing the risks inherent in his product, acted reasonably in putting it on the market." Singleton v. International Harvester Co., 685 F.2d 112, 115 (4th Cir. 1981). The risk-utility test was first articulated by Dean John W. Wade. *Phipps*, 278 Md. at 345 n.4, 363 A.2d at 959 n.4. *See* Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 837-38 (1973). Dean Wade first formulated these factors, in shorter form, eight years earlier. *See* Wade, *Strict Tort Liability of Manufacturers*, 19 S.W.L.J. 5, 17 (1965).

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 insurance.[86]

The risk-utility test is simply a formal compilation of factors usually examined in product liability cases. As stated by the Court of Special Appeals of Maryland in *Sheehan v. Anthony Pools*,[87] "these factors rationalize what most courts do in deciding design cases, although not all the factors are necessarily weighed nor is the risk/utility analysis denominated as such."[88]

Singleton v. International Harvester Co.[89] illustrates the application of the risk-utility test under Maryland law. In *Singleton*, the plaintiff was operating his tractor in an open field when the rear wheels became trapped in mud, causing the front end of the tractor to raise up, flip over, and trap him underneath.[90] The plaintiff contended that had the tractor been equipped with a rollover protective structure (ROPS) he would not have been injured and the absence of this structure on his 1948 model tractor was a design defect. The plaintiff, however, failed to produce evidence for the finder of fact that questioned the reasonableness of marketing a tractor without a ROPS in 1948. According to the court, the necessary evidence would include:

---

86. Wade, *On The Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 837-38 (1973). The Wade risk-utility test has been acknowledged repeatedly to be the appropriate test for design defects which do not present an inherently unreasonable risk. In *Phipps*, the Court of Appeals of Maryland approved the risk-utility test, but did not have an opportunity to apply the test because the defect in that case fell within the unreasonably dangerous category that requires no balancing. *Phipps*, 278 Md. at 345 n.4, 363 A.2d at 959 n.4. Five years later the Fourth Circuit applied the test to an allegedly defective tractor in Singleton v. International Harvester Co., 685 F.2d 112, 115 (4th Cir. 1981) (applying Maryland law under diversity of citizenship jurisdiction). A year after *Singleton*, the Court of Special Appeals of Maryland recognized the risk-utility test as applicable in some design defect cases in Sheehan v. Anthony Pools, 50 Md. App. 614, 620 n.6, 440 A.2d 1085, 1089 n.6 (1982), *aff'd*, 295 Md. 285, 455 A.2d 434 (1983), although the court did not rely upon the test in that case because the appellants failed to raise the issue at the trial level. *Id.* at 620 n.6, 440 A.2d at 1089 n.6. The court of appeals expressly adopted the portion of the court of special appeals opinion recognizing the test in Anthony Pools v. Sheehan, 295 Md. 285, 289, 455 A.2d 434, 441 (1983). Finally, the court of appeals mentioned in dicta in Kelley v. R.G. Indus., 304 Md. 124, 138, 497 A.2d 1143, 1149 (1985) that it had acknowledged the test in earlier opinions. *Id.* at 138, 497 A.2d at 1149. It seems certain that Maryland will rely on the risk-utility analysis in design defect cases where the defect does not present an inherently unreasonable risk.

87. 50 Md. App. 614, 440 A.2d 1085 (1982), *aff'd*, 295 Md. 285, 455 A.2d 434 (1983).

88. Sheehan v. Anthony Pools, 50 Md. App. 614, 620 n.6, 440 A.2d 1085, 1089 n.6 (1982), *aff'd*, 295 Md. 285, 455 A.2d 434 (1983). For a discussion on judicial application of the risk-utility test, *see* Cepeda v. Cumberland Eng'g Co., 76 N.J. 152, 172-76, 386 A.2d 816, 825-27 (1978).

89. 685 F.2d 112 (4th Cir. 1981).

90. Singleton v. International Harvester Co., 685 F.2d 112, 113 (4th Cir. 1981).

> the technological feasibility of manufacturing a tractor with a ROPS in 1948, the availability of material for producing such a structure in 1948, the cost of producing such a structure in 1948, the price to a consumer of a ROPS in 1948, and the chances for consumer acceptance of a tractor with a ROPS in 1948.[91]

Failure to produce this evidence resulted in a directed verdict for the manufacturer on the defective design claim.[92] Inasmuch as a goal of product liability law is to relieve plaintiffs of the burden of evidentiary hurdles, had the plaintiff in *Singleton* produced sufficient evidence to send the case to the jury on the defective design question, the burden of proof would then have shifted to the manufacturer to prove that the utility of the tractor's design outweighed its risks.

Maryland should continue to rely on the risk-utility test in design defect cases when the reasonableness of a particular design is at issue. Among the several tests and their variations,[93] the risk-utility test best allows full consideration of the relative merits of a product's design with a fair placement of the burden of proof on the defendant manufacturer. Maryland need not venture into the confusion of the various other tests for design defects because *Singleton* indicates that Maryland already has a working body of law.

c. failure to warn defect

A failure to warn defect exists when a manufacturer's failure to provide an adequate warning makes a product dangerous and results in physical injury. Comment h to section 402A states that where a manufacturer "has reason to anticipate that danger may result from a particular use . . . he may be required to give adequate warning of the danger . . . and a product sold without such warning is in a defective condition."[94] Similarly, comment j states that "[i]n order to prevent the product from being unreasonably dangerous, the seller may be required to give directions or warnings, on the container, as to its use."[95]

---

91. *Id.* at 115.
92. *Id.* at 116.
93. *See supra* note 82.
94. RESTATEMENT (SECOND) OF TORTS § 402 comment h (1965).
95. RESTATEMENT (SECOND) OF TORTS § 402 comment j (1965). For an excellent discussion of failure to warn claims under section 402A, see Goodbar v. Whitehead Bros., 591 F. Supp. 552 (W.D. Va. 1984), *aff'd sub nom.* Beale v. Hardy, 769 F.2d 213 (4th Cir. 1985).

There is some similarity between a strict liability failure to warn claim under section 402A and strict liability imposed for misrepresentation under section 402B of the RESTATEMENT (SECOND) OF TORTS (1965). That section states:

> One engaged in the business of selling chattels who, by advertising, labels, or otherwise, makes to the public a misrepresentation of a material fact concerning the character or quality of a chattel sold by him is subject to liability for physical harm to a consumer of the chattel caused by justifiable reliance upon the misrepresentation even though (a) it is not made

There are differing views as to what constitutes a danger sufficiently great as to generate a duty to warn, the standard applied is similar to the reasonableness standard of negligence law.[96] There is, however, a subtle difference. If the failure to warn is based upon strict liability law, the *product* without the warning must be unreasonably dangerous. If the failure to warn is based upon negligence law, the *conduct* of the manufacturer must be unreasonable.[97] Notwithstanding, both standards are practically indistinguishable because the condition of the product speaks directly to the conduct of the manufacturer and vice versa. Under strict liability duty to warn, the manufacturer has no duty to warn where the danger is either obvious[98] or unforeseeable.[99] Depending upon the facts of each case, a plaintiff may have to establish that the danger was reasonably foreseeable, but not so foreseeable as to be obvious.[100]

---

fraudulently or negligently, and (b) the consumer has not bought the chattel from or entered into any contractual relation with the seller.

RESTATEMENT (SECOND) OF TORTS § 402B (1965). For an example of a case applying section 402B, see, Klages v. General Ordnance Equip. Corp., 240 Pa. Super. 356, 367 A.2d 304 (1976).

96. Applying Maryland law, the United States District Court for the District of Columbia invoked a test of reasonable foreseeability in Ferebee v. Chevron Chem. Co., 552 F. Supp. 1293 (D. D.C. 1982), *aff'd*, 736 F.2d 1529 (D.C. Cir.), *cert. denied*, 469 U.S. 1062 (1984). *See also* RESTATEMENT (SECOND) OF TORTS § 402A comment j (1965) (strict liability for failure to warn); RESTATEMENT (SECOND) OF TORTS § 388 (1965) (negligence for failure to warn).
97. *See* Mauch v. Manufacturers Sales & Serv., 345 N.W.2d 338 (N.D. 1984); Hayes v. Ariens Co., 462 N.E.2d 273 (Mass. 1984).
98. *See, e.g.*, Garrison v. Heublein, Inc., 673 F.2d 189 (7th Cir. 1982) (prolonged consumption of alcohol can result in physical and mental injury); McWaters v. Steel Serv. Co., 597 F.2d 79 (6th Cir. 1979) (reinforcing steel rods used in vertical position must be secured with proper amount of guy wires); Marshall v. Ford Motor Co., 446 F.2d 712 (10th Cir. 1971) (failure to use seatbelt can result in injury); Posey v. Clark Equip. Co., 409 F.2d 560 (7th Cir.), *cert. denied*, 396 U.S. 940 (1969) (driver of forklift truck without overhead screen could be injured by falling boxes); Scheller v. Wilson Certified Foods, 114 Ariz. 159, 559 P.2d 1074 (1976) (trichinosis can be contracted from eating uncooked pork); Bookout v. Victor Comptometer Corp., 40 Colo. App. 417, 576 P.2d 197 (1978) (BB gun could injure an eye if fired at a person); Huft v. Elmhurst-Chicago Stone Co., 94 Ill. App.3d 1091, 419 N.E.2d 561 (1981) (wet concrete can burn human skin); Hensley v. Muskin Corp., 65 Mich. App. 662, 238 N.W.2d 362 (1976) (one could be injured diving off seven foot high garage into four feet deep swimmming pool); Garrett v. Nissen Corp., 84 N.M. 16, 498 P.2d 1359 (1972) (one could be injured jumping on trampoline); Berry v. Eckhardt Porsche Audi, Inc., 578 P.2d 1195 (Okla. 1978) (failure to use seatbelt can result in injury); Menard v. Newhall, 135 Vt. 53, 373 A.2d 505 (1977) (same); Kimble v. Waste Sys. Int'l, 23 Wash. App. 331, 595 P.2d 569 (1979) (one can fall out of driver's compartment of truck).
99. *See* RESTATEMENT (SECOND) OF TORTS § 402A comment h (1965) (duty to warn only arises where danger is one that manufacturer "has reason to anticipate"); *see also*, Baker v. International Harvester Co., 660 S.W.2d 21 (Mo. Ct. App. 1983) (not foreseeable that agricultural combine would be used for hunting); Landrine v. Mego Corp., 95 A.D. 2d 759, 464 N.Y.S.2d 516 (1983) (not foreseeable that child would swallow balloon attached to a doll which made the doll simulate blowing a bubble).
100. For examples of manufacturers which have been held strictly liable for failure to warn, see Melancon v. Western Auto Supply Co., 628 F.2d 395 (5th Cir. 1980) (the danger of emission of flame from lawn mower muffler); Steinmetz v. Bradbury Co.,

In determining when reasonable foreseeability gives rise to a duty to warn, Maryland has taken an expansive view. In *American Laundry Machine Industries v. Horan*,[101] the court of special appeals stated that "a manufacturer's duty to produce a safe product, with appropriate warnings and instructions when necessary, is no different from the responsibility each of us bears to exercise due care to avoid unreasonable risk of harm to others."[102] The pertinent inquiry, the court concluded, "is not whether the harm that occurred — the actual use — was itself foreseeable, but rather whether it fell within a general field of danger which should have been anticipated."[103]

In *Ferebee v. Chevron Chemical Co.*,[104] the United States District Court for the District of Columbia applied Maryland law in a strict liability case. The court suggested that a warning may be inadequate if it is not sufficiently conspicuous.[105] The court stated that a warning may not be adequate if it fails to state that a particular injury could occur,[106] and if the instructions fail to inform the user "what the result will be if he fails to follow them."[107]

---

618 F.2d 21 (8th Cir. 1980) (the danger of operating machine with rollers exposed); Suchomajcz v. Hummel Chem. Co., 524 F.2d 19 (3d Cir. 1975) (the danger of chemicals exploding); Karjala v. Johns-Manville Prod. Corp., 523 F.2d 155 (8th Cir. 1975) (the danger of contracting asbestosis from installation of asbestos); Filler v. Rayex Corp., 435 F.2d 336 (7th Cir. 1970) (special sunglasses designed for baseball will shatter if struck by a baseball); Reed v. John Deere, 569 F. Supp. 371 (M.D. La. 1983) (a tractor started in neutral is capable of moving in reverse); LeBouef v. Goodyear Tire & Rubber Co., 451 F. Supp. 253 (D.C.W.D. La.), *aff'd*, 623 F.2d 985 (5th Cir. 1980) (automobile tires might blow out if traveling at excessively high speed); Hall v. E.I. Du Pont De Nemours & Co., 345 F. Supp. 353 (E.D.N.Y. 1972) (the danger of using explosives); Barth v. B.F. Goodrich Tire Co., 265 Cal. App. 2d 228, 71 Cal. Rptr. 306 (1968) (automobile tires might blow out if carrying more than described weight); Gryc v. Dayton-Hudson Corp., 297 N.W.2d 727 (Minn. 1980) (pajama fabric is flammable), *cert. denied*, 449 U.S. 921 (1980); Outboard Marine Corp. v. Schupbach, 93 Nev. 158, 561 P.2d 450 (1977) (electric cart used in chemical plant was not sparkproof); Degen v. Bayman, 241 N.W.2d 703 (S.D. 1976) (a boat could be started in any gear); Ruiz v. Flexonics, 517 S.W.2d 853 (Tex. Civ. App. 1974) (a rubber hose is not suitable for connecting gas outlet to space heater).

101. 45 Md. App. 97, 412 A.2d 407 (1980).

102. American Laundry Mach. Indus. v. Horan, 45 Md. App. 97, 101, 412 A.2d 407, 411 (1980) (citing Moran v. Faberge', Inc., 273 Md. 538, 543, 332 A.2d 11, 15 (1975)).

103. *American Laundry*, 45 Md. App. at 104, 412 A.2d at 413.

104. 552 F. Supp. 1293 (D.D.C. 1982), *aff'd*, 736 F.2d 1529 (D.C. Cir.), *cert. denied*, 469 U.S. 1062 (1984).

105. Ferebee v. Chevron Chem. Co., 552 F. Supp. 1293, 1303 (D. D.C. 1982), *aff'd*, 736 F.2d 1529 (D.C. Cir.), *cert. denied*, 469 U.S. 1062 (1984). In *Ferebee*, the plaintiff's claim was premised on both negligence and strict liability.

106. *Id.* at 1304.

107. *Id.* The court explained that "[i]f Mr. Ferebee was not warned that dermal exposure could seriously injure and even kill him, his failure to prevent that exposure cannot be deemed misuse." *Id.* at 1305. *See also* Billiar v. Minnesota Mining and Mfg. Co., 623 F.2d 240, (2d Cir. 1980); Boyl v. California Chem. Co., 221 F. Supp. 669 (D. Ore. 1963) and D'Arienzo v. Clairol, Inc., 125 N.J. Super. 224, 310 A.2d 106 (1973).

Recently, an Illinois appellate court addressed the adequacy of warning issue.

The issue arising out of an allegation of failure to warn in a product liability case is whether the warning was adequate.[108] Because the warning issue is so simple, plaintiffs need not develop the elaborate expert testimony which may be required to prove a manufacturing or design defect. In *Ferebee*, for example, the court held that such expert testimony was not required to establish the inadequacy of a warning on a herbicide.[109] The court explained that it could "think of no question more appropriately left to a common sense lay judgment than that of whether a written warning gets its message across to an average person."[110] The court's conclusion was based upon the premise that the warnings on labels are addressed to laymen, not to experts on labeling.[111]

A Maryland appellate court has not expressly imposed strict liability for failure to warn under section 402A. Traditionally, Maryland courts have acknowledged a duty to warn in negligence.[112] Given the similarity between the duty to warn in negligence and in strict liability, the court of appeals probably would apply strict liability to a failure to warn claim.

3. "Unreasonably Dangerous" Requirement

In Maryland a plaintiff must prove not only that a product was in a defective condition when it left the control of the seller, but also that it was "unreasonably dangerous in order to recover under strict liability."[113] In some states a plaintiff need only show that a product was

---

The court explained that "[w]arnings may be inadequate if they: 1) *do not specify the risk presented by the product*; 2) are inconsistent with how a product would be used; 3) do not provide the reason for the warnings; or 4) do not reach foreseeable users." Collins v. Sunnyside Corp., 146 Ill. App. 3d 78, 80, 496 N.E.2d 1155, 1157 (1986) (emphasis added). *See also*, Brown v. Sears, Roebuck & Co., 136 Ariz. 556, 667 P.2d 750 (1983) (failure to warn of the fatal result if instructions were not followed on use of extension cords).

108. *Ferebee*, 552 F. Supp. at 1304. Although this issue was not addressed on appeal, the opinion of the trial court was upheld. Ferebee v. Chevron Chem. Co., 736 F.2d 1529 (D.C. Cir. 1984).

109. *Ferebee*, 552 F. Supp. at 1304.

110. *Id.* The court countered the defendant's expert testimony argument by noting that "it is to the layman that the warning is addressed not to the expert on labelling."

111. *Id.* The court explained that although effective labelling is a recognizable area of expertise, "even an expert on the subject can decide whether a label is adequate only by measuring the reactions of average people." *Id.*

112. Moran v. Faberge, 273 Md. 538, 332 A.2d 11 (1975). The *Moran* opinion, discussing existing Maryland law for negligent failure to warn, articulated that the scope of the duty extends to the "general field of danger" that a manufacturer should anticipate. *Id.* at 551-52, 332 A.2d at 19. *Moran* is the landmark decision for negligent failure to warn claims under Maryland law. American Laundry Mach. Indus. v. Horan, 45 Md. App. 97, 412 A.2d 407 (1980).

113. In Phipps v. General Motors Corp., 278 Md. 337, 363 A.2d 955 (1976), the court of appeals stated:

> for a seller to be liable under § 402A, the product must be . . . "unreasonably dangerous" at the time that it is placed on the market by the seller. . . . An "unreasonably dangerous" product is defined in Comment i as one which is "dangerous to an extent beyond that which would be con-

defective because the unreasonably dangerous requirement is thought to introduce burdensome elements of negligence into a strict liability claim.[114]

The unreasonably dangerous requirement is met by proving either a manufacturing defect,[115] a design defect,[116] or a failure to warn defect.[117] Determining whether the defect renders the product unreasonably dangerous depends upon the expectation of the user. As stated in comment i of section 402A, an unreasonably dangerous product is one that is "dangerous to an extent beyond that which would be contemplated by the ordinary consumer."[118] If a product causes injury in a way not contemplated by the typical user, it is deemed unreasonably dangerous, unless it is made safe for reasonably foreseeable uses through an adequate warning.[119]

4. "Without Substantial Change" Requirement

Because liability is conditioned upon a user receiving the product without substantial change from the condition in which it was sold,[120] the plaintiff must show that the product was in a defective condition when it left the seller's hands.[121] In *Virgil v. "Kash N' Karry" Service*

templated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics."

Id. at 344, 363 A.2d at 959 (quoting RESTATEMENT (SECOND) OF TORTS § 402A (1965)).

114. *See, e.g.*, Bertles v. Guest, 477 F. Supp. 179 (E.D. Pa. 1979) (applying Pennsylvania law); Cronin v. J.B.E. Olson Corp., 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972); Suter v. San Angelo Foundry & Mach. Co., 81 N.J. 150, 406 A.2d 140 (1979).

115. Sweeney v. Matthews, 94 Ill. App.2d 6, 236 N.E.2d 439 (1968), *aff'd*, 46 Ill. 2d 64, 264 N.E.2d 170 (1970) (nail defectively manufactured which splintered).

116. Hammond v. International Harvester Co., 691 F.2d 646 (3d Cir. 1982) (front end loader delivered without roller over guard and side screens); Ilnicki v. Montgomery Ward Co., 371 F.2d 195 (7th Cir. 1967) (various design defects on lawnmover); Johnston v. Ford Motor Co., 443 F. Supp. 870 (W.D. La. 1978) (defective design in auto jack causing it to collapse); Richey v. Sumoge, 273 F. Supp. 904 (D. Or. 1967) (inadequate guard on brush cutter); Richelman v. Kekwanee Mach. & Conveyor Co., 59 Ill. App. 3d 578, 375 N.E.2d 885 (1978) (excessively wide spacing between bars of grain auger guard).

117. *See supra* notes 94-100 and accompanying text.

118. RESTATEMENT (SECOND) OF TORTS § 402A comment i (1965).

119. Ellsworth v. Sherne Lingerie, Inc., 303 Md. 581, 595-96, 495 A.2d 348, 355 (1985).

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

121. Ellsworth v. Sherne Lingerie, Inc., 303 Md. 581, 597, 495 A.2d 348, 356 (1985) (plaintiff must show "that the product was in a defective condition when it left the hands of the seller"); Virgil v. "Kash N' Karry" Serv. Corp., 61 Md. App. 23, 32-33, 484 A.2d 652, 656-57 (1984) (in case of an exploding thermos, plaintiff had to demonstrate that it was more likely than not that the defect existed at the time of sale). For other cases placing the burden of proof on the plaintiff, see Hollinger v. Wagner Mining Equip. Co., 505 F. Supp. 894 (E.D. Pa.), *vacated on other grounds*, 667 F.2d 402 (3d Cir. 1981); Southwire Co. v. Beloit Eastern Corp., 370 F. Supp. 842 (E.D. Pa. 1974); Seeborg v. General Motors Corp., 284 Or. 695, 588 P.2d 1100 (1978); Weatherford v. H.K. Porter, Inc., 560 S.W.2d 31 (Mo. App. 1977).

Although most courts follow the general rule that the burden falls on the plain-

Corp.,[122] the court of special appeals considered the sufficiency of evidence required to show that a product was defective at the time of sale. The court stated:

> [P]roof of a defect must rise above surmise, conjecture or speculation; and one's right to recovery may not rest on any presumption [of defect] from the happening of an accident. As Dean Prosser noted, "The bare fact that an accident happens to a product . . . is usually not sufficient proof that it was in any way defective. . . . On the other hand, the addition of very little more in the way of other facts . . . may be enough to support the inference."[123]

When analyzing whether a product was defective at the time of sale, Maryland courts have focused upon whether there was a "substantial" change in the product.[124] In *Banks v. Iron Hustler Corp.*,[125] the court of special appeals surveyed the conflicting opinions on the substantial change requirement and summarized, "Some courts stress the foreseeability of the alteration; others speak simply to whether the change made an otherwise safe product unsafe; and others, borrowing from the law of negligence, view the matter as whether the alteration constituted a supervening cause."[126] The common denominator in the cases is that "in most cases, the substantiality of the change is a question of fact, and if there is any conflict in the evidence, it is for the jury to determine."[127]

5. "Proximate Cause" Requirement

After proving the existence of a defect attributable to a seller or

---

tiff to prove that a product was defective at the time of sale, there appears to be a tendency in some states to shift the burden to the defendant to show that there was no defect. For example, in Sease v. Taylor Pets, Inc., 74 Or. App. 110, 700 P.2d 1054 (1985), the Court of Appeals of Oregon stated that under the Oregon product liability statute, the seller of an allegedly rabid skunk could present the defense that the skunk had changed substantially since its sale. *Id.* at 117, 700 P.2d at 1058. The statute discussed in *Sease* apparently relieves a plaintiff of the burden of showing that he satisfied the section 402A requirement that the product causing the injury was defective as sold.

122. 61 Md. App. 23, 484 A.2d 652 (1984).

123. Virgil v. "Kash N' Karry" Serv. Corp., 61 Md. App. 23, 32, 484 A.2d 652, 657 (1984).

124. *See* Anthony Pools v. Sheehan, 295 Md. 285, 299, 455 A.2d 434, 441 (1983) (expressly adopting the opinion of court of special appeals that liability exists only if the product is used without substantial change); Banks v. Iron Hustler Corp., 59 Md. App. 408, 432, 475 A.2d 1243, 1255 (1984) (holding that liability is conditioned on the product reaching the consumer without substantial change).

125. 59 Md. App. 408, 475 A.2d 1243 (1984).

126. Banks v. Iron Hustler Corp., 59 Md. App. 408, 432, 475 A.2d 1243, 1255 (1984). In *Banks*, the court surmised that "[p]erhaps because of the varying fact patterns from which the question arises, the courts have not yet settled on any uniformly expressed standard for judging when an alteration will or will not suffice to absolve the manufacturer of liability." *Id.*

127. *Id.*

manufacturer, the plaintiff must demonstrate that the defect proximately caused the injury.[128] The Fourth Circuit has held that to establish proximate causation in Maryland, the plaintiff must prove that the defendant's conduct was a substantial factor in bringing about his injury.[129] In failure to warn cases the required causation is the stricter "but for" standard of causation;[130] if a warning would not have prevented the injury, the failure to warn was not the proximate cause of the injury.[131]

B. Negligence

With the emergence and rapid development of strict liability, less

---

128. *See* RESTATEMENT (SECOND) OF TORTS § 402A(1) (1966); Virgil v. "Kash N' Karry" Serv. Corp., 61 Md. App. 23, 30, 484 A.2d 652, 656 (1984) (citing Phipps v. General Motors Corp., 278 Md. 337, 363 A.2d 955 (1976)).

129. Lohrmann v. Pittsburgh Corning Corp., 782 F.2d 1156, 1162 (4th Cir. 1986). In *Lohrmann*, the court applied Maryland law in a strict liability action filed by a shipyard pipe fitter who allegedly contracted asbestosis from products containing asbestos used in the shipyard. The court relied upon Robin Express Transfer, Inc. v. Canton R.R., 26 Md. App. 321, 338 A.2d 335 (1975), and stated that "in Maryland, the plaintiff must introduce evidence which allows the jury to reasonably conclude that it is more likely than not that the conduct of the defendant was a substantial factor in bringing about the result." *Lohrmann*, 782 F.2d at 1162. The court noted that this standard was the same as that set forth in the RESTATEMENT (SECOND) OF TORTS § 431, which provides:

> The actor's negligent conduct is a legal cause of harm to another if (a) his conduct is a substantial factor in bringing about the harm, and (b) there is no rule of law relieving the actor from liability because of the manner in which his negligence has resulted in the harm.

RESTATEMENT (SECOND) OF TORTS § 431 (1967). Comment a to § 431 elaborates on the substantial factor requirement:

> The word "substantial" is used to denote the fact that the defendant's conduct has such an effect in producing the harm as to lead reasonable men to regard it as a cause, using that word in a popular sense, in which there always lurks the idea of responsibility, rather than in the so-called "philosophic sense" which includes every one of the great number of events without which any happening would not have occurred.

RESTATEMENT (SECOND) OF TORTS § 431 comment a (1967).

Some courts have construed the substantial factor requirement to allow for liability even if the defect is not the sole cause of the injury; it is sufficient that the defect is the most probable cause or a concurrent cause. *See* Lifritz v. Sears, Roebuck & Co., 472 S.W.2d 28 (Mo. App. 1971) (expert testimony that defect was most probable cause of accident sufficient for liability); Vlahovich v. Belts Mach. Co., 101 Ill. App. 2d 123, 242 N.E.2d 17 (1969) (defect need not be the only cause, nor the last or nearest cause), *aff'd*, 45 Ill. 2d 506, 260 N.E.2d 230 (1970).

130. *See* Singleton v. International Harvester Co., 685 F.2d 112, 116-17 (4th Cir. 1981).

131. *Id.* In *Singleton*, the court found no error in an instruction that stated, "If you find that there was adequate warning given, but that under the circumstances the accident would have occurred even if an adequate warning had been given, then the manufacturer is not liable because the absence of a warning would not have been the proximate cause of the accident." *Id.* at 116. In *Singleton*, the plaintiff believed that he was operating a farm tractor on dry, level ground. The plaintiff testified that had he known the ground contained a mud hole, he would not have driven on the ground. Based on this testimony, a reasonable jury could have concluded that even if the plaintiff had read a warning, he would not have changed his conduct. *Id.* at 117.

emphasis has been placed on the role of negligence in product liability actions. The negligence theory nevertheless remains important. There are certain tactical advantages to including a negligence claim in a product liability action. A strict product liability claim focuses on the allegedly defective product, but a negligence claim focuses on the product *and* any culpable conduct of the defendant. Directing attention to the defendant's alleged carelessness not only generates sympathy among jurors, but also increases the likelihood of a punitive damages award. Punitive damages generally are not available under strict liability.[132] There is one potential disadvantage to including a negligence claim in the suit. In some jurisdictions, evidence of subsequent remedial measures to prove culpable conduct is permitted under a strict liability theory, but not under a negligence theory.[133] In Maryland, however, the use of evidence

---

132. The crucial inquiry in a strict product liability action is the condition of the product in question, not the culpability of the defendant's conduct. *See, e.g.*, Werner v. Upjohn Co., 628 F.2d 848, 857-58 (4th Cir.) (applying Maryland law), *cert. denied*, 449 U.S. 1081 (1980); Phipps v. General Motors Corp., 278 Md. 337, 344, 363 A.2d 955, 962 (1976); Lahocki v. Contee Sand & Gravel Co., 41 Md. App. 579, 594-95, 398 A.2d 490, 500 (1979). Punitive damages are unavailable because they are incompatible with the concepts underlying product liability law. *See* Butcher v. Robertshaw Controls Co., 550 F. Supp. 692, 704-05 (D. Md. 1981).

The Court of Appeals of Maryland has not determined whether punitive damages are available in a strict product liability action. The court of special appeals discussed the issue in American Laundry Mach. Indus. v. Horan, 45 Md. App. 97, 412 A.2d 407 (1980). In *Horan*, the court reversed a judgment for punitive damages in a product liability action which was submitted to the jury under theories of negligence and strict liability. Noting that the court of appeals had not resolved the issue, the court declined to rule on the issue of whether punitive damages could be recovered in a strict product liability action. *Id.* at 110-13, 412 A.2d at 416-17. The court held that punitive damages could be awarded under a negligence theory in a product liability action, but reversed the judgment for punitive damages because of the lack of proof of wanton and reckless conduct that was a prerequisite to the recovery of punitive damages. *Id.* The issue remains open and will most likely be the focus of attention in future actions. *See also* Holman v. Mark Indus., 610 F. Supp. 1195, 1205-06 (D. Md. 1985) (disallowing punitive damages in products liability case in absence of negligence or actual malice).

133. *See* Ault v. International Harvester Co., 13 Cal. 3d 113, 120, 528 P.2d 1148, 1152, 117 Cal. Rptr. 812, 816 (1974) (statute that provided that remedial measures were inadmissible to prove negligence or culpable conduct did not encompass strict liability cases). The Court of Special Appeals of Maryland noted in Troja v. Black & Decker Mfg. Co., 62 Md. App. 101, 488 A.2d 516 (1985) that courts are divided on the application of Rule 407 of the Federal Rules of Evidence and the question of whether evidence of subsequent remedial measures in design or failure to warn products liability cases should be admitted. *Id.* at 113, 488 A.2d at 521-22. Rule 407, captioned "Subsequent Remedial Measures," provides:

> When, after an event, measures are taken which, if taken previously, would have made the event less likely to occur, evidence of the subsequent measures is not admissible to prove negligence or culpable conduct in connection with the event. This rule does not require the exclusion of evidence of subsequent measures when offered for another purpose, such as proving ownership, control, or feasibility of precautionary measures, if controverted, or impeachment.

FED. R. EVID. 407. Some courts apply Rule 407 to bar the admission of evidence of subsequent remedial measures to prove culpable conduct in strict liability actions.

of subsequent remedial measures to prove culpable conduct is never allowed.[134]

The traditional elements of negligence are: (1) a duty owed by the defendant to the plaintiff; (2) a breach of that duty by the defendant; (3) an injury; and (4) that the injury proximately result from the defendant's breach of the duty.[135] The first of these elements has been elaborated upon in section 388 of the Restatement (Second) of Torts. Section 388 states that a supplier of chattels will be liable for an injury proximately caused by a defect if the supplier knows or has reason to know that the chattel is likely to be dangerous for the use for which it is supplied, has no reason to believe that those using the chattel would realize the danger, and fails to exercise reasonable care to warn of the danger.[136] The Court

---

Other courts hold that Rule 407 does not apply in strict liability actions. *Troja*, 62 Md. App. at 113, 488 A.2d at 521-22.

134. *Troja*, 62 Md. App. at 113, 488 A.2d at 522. *See also* Werner v. Upjohn Co., 628 F.2d 848, 856-58 (4th Cir. 1980). In *Werner*, the court was urged to adopt the position taken in *Ault*, 13 Cal. 3d 113, 528 P.2d 1148, 117 Cal. Rptr. 812, that the rule against admitting evidence of subsequent remedial measures does not apply in product liability cases. *Werner*, 628 F.2d at 857. The *Werner* court rejected the *Ault* position, explaining that the *Ault* court "assumes that the product is defective, and thus overlooks the situation where the product is not defective but could be made better." *Id.* The court observed further that allowing evidence of remedial measures in strict product liability actions was contrary to the rationale of Rule 407. The court stated:

> The rationale behind Rule 407 is that people in general would be less likely to take subsequent remedial measures if their repairs or improvements would be used against them in a lawsuit arising out of a prior accident. By excluding this evidence, defendants are encouraged to make such improvements. It is difficult to understand why this policy should apply any differently where the complaint is based on strict liability as well as negligence. From a defendant's point of view it is the fact that the evidence may be used against him which will inhibit subsequent repairs or improvement [sic]. It makes no difference to the defendant on what theory the evidence is admitted; his inclination to make subsequent repairs will be similarly repressed.

Id.

In *Troja*, the court of special appeals found the reasoning of the *Werner* court to be persuasive and decided to "stand beside *Werner* and hold that in a strict liability case evidence of subsequent remedial measures is not admissible to prove culpable conduct." *Troja*, 62 Md. App. at 114, 488 A.2d at 522.

135. Read Drug and Chem. Co. v. Colwill Constr. Co., 250 Md. 406, 412, 243 A.2d 548, 553 (1968) (quoting Jackson v. Pennsylvania R.R., 176 Md. 1, 5, 3 A.2d 719, 721 (1939)).

136. Section 388 of the RESTATEMENT (SECOND) OF TORTS provides:

> One who supplies directly or through a third person a chattel for another to use is subject to liability to those whom the supplier should expect to use the chattel with the consent of the other or to be endangered by its probable use, for physical harm caused by the use of the chattel in the manner for which and by a person for whose use it is supplied, if the supplier
>
> (a) knows or has reason to know that the chattel is or is likely to be dangerous for the use for which it is supplied, and
>
> (b) has no reason to believe that those for whose use the chattel is supplied will realize its dangerous condition, and

of Appeals of Maryland has stated that "a manufacturer's duty to produce a safe product, with appropriate warnings and instructions when necessary, is no different from the responsibility each of us bears to exercise due care to avoid unreasonable risk of harm to others."[137] According to the Restatement, the duty owed by the manufacturer imposes liability for the negligent design, manufacture, testing, and inspection of the product, including the testing and inspection of component parts made by another that are incorporated in a manufacturer's product.[138] A similar duty is incumbent on a component maker, a material processor, or a seller assuming the role of manufacturer.[139]

The Court of Appeals of Maryland expressly has incorporated into the negligence formula the obligation set forth in section 388 that the manufacturer warn of dangers that it knows or should know will not be contemplated by the public.[140] The warning requirement generally calls for a reasonable warning, not for the best possible warning.[141] Where an adequate warning would not have prevented the harm from occurring, a manufacturer is not liable for breaching its duty to warn because the lack of a warning was not the cause of the harm.[142]

As with strict liability duty to warn, courts have barred recovery under negligence where the danger is not reasonably foreseeable,[143] and

---

(c) fails to exercise reasonable care to inform them of its dangerous condition or of the facts which make it likely to be dangerous.

RESTATEMENT (SECOND) OF TORTS § 388 (1965).

137. American Laundry Mach. Co. v. Horan, 45 Md. App. 97, 101-02, 412 A.2d 407, 411 (1980) (quoting Moran v. Faberge, Inc., 273 Md. 538, 543, 332 A.2d 11, 15 (1975)).

138. *See* RESTATEMENT (SECOND) OF TORTS §§ 388, 396 (1965).

139. Liability may exist against any member of the distributive chain because each is responsible in varying degrees for a product reaching the hands of the person injured by the product. This may not continue to be the case. With the adoption of comparative negligence, minimally liable parties have become less attractive targets. Additionally, one of the primary rationales for the imposition of strict product liability was the difficulty in bringing the responsible party to court. With the advent of effective long arm jurisdiction statutes, it is less difficult for a plaintiff to bring the proper defendant to court, thereby eliminating the need to sue all potential parties in hope of including the culpable party.

140. Moran v. Fabergé, Inc., 273 Md. 538, 543-50, 332 A.2d 11, 15-19 (1975). *See also* RESTATEMENT (SECOND) OF TORTS § 388 (1965).

141. Levin v. Walter Kidde & Co., 251 Md. 560, 564, 248 A.2d 151, 154 (1968).

142. Singleton v. International Harvester Co., 685 F.2d 112, 116-17 (4th Cir. 1981).

143. *See, e.g.*, Rowe v. John C. Motter Printing Press Co., 305 F. Supp. 1001 (D. R.I. 1969) (no duty to warn that printing press should not be cleaned when not in "off impression" state); Johnston v. Upjohn Co., 442 S.W.2d 93 (Mo. App. 1969) (no duty to warn of possible allergic reaction where there was no evidence that such reaction might occur); Beck v. E.I. Du Pont de Nemours & Co., 76 Wash. 2d 95, 455 P.2d 587 (1969) (no duty to warn of danger that product might erupt when poured into automobile radiator where there was no evidence that such eruption had ever occurred before); Ford Motor Co. v. Wolber, 32 F.2d 18 (7th Cir.) (no duty to warn that tractor might overturn where there was no evidence of a faulty design or construction that indicated tractor had tendency to overturn), *cert. denied*, 280 U.S. 565 (1929).

where the danger was so foreseeable as to be obvious.[144] Courts have expanded manufacturer liability, however, by extending the scope of foreseeable injuries to what arguably are unforeseeable accidents. In *American Laundry Machine Industries v. Horan*,[145] the Court of Special Appeals of Maryland held that a manufacturer was negligent for failing to warn that a commercial laundry dryer installed at a hospital might explode if used to dry a large hot-air balloon.[146] This decision, and others similar to it, has drawn some criticism for what is viewed as an abuse of the foreseeability requirement in the failure-to-warn context,[147] but such criticism apparently has not dissuaded the courts. Perhaps courts disregard these criticisms because the cost of providing a warning is much less than the cost of changing a design. A court balancing a product's risks against its utilities has less difficulty finding a warning inadequate than finding a design inadequate.

As with strict liability, the duty to warn is a continuing duty and may require a manufacturer to take curative steps for a product that already has been sold.[148] This includes the duty to recall the product or to repair the product after sale. In *Rekab, Inc. v. Frank Hrubetz & Co.*,[149] a manufacturer was not held liable for an injury caused by a design defect. The Court of Appeals of Maryland noted that the manufacturer, after discovering the defect, warned the buyer of the design defect and shipped the buyer a new part with instructions for its installation.[150] Had the

144. *See, e.g.*, Posey v. Clark Equip. Co., 409 F.2d 560 (7th Cir.) (driver of forklift truck could be injured by falling boxes), *cert. denied*, 396 U.S. 940 (1969); Hensley v. Muskin Corp., 65 Mich. App. 662, 238 N.W.2d 362 (1976) (one could be injured diving off seven foot high garage into four feet deep swimming pool); Garrett v. Nissen Corp., 84 N.M. 16, 498 P.2d 1359 (1972) (one could be injured jumping on trampoline); Pemberton v. American Distilled Spirits Co., 664 S.W.2d 690 (Tenn. 1984) (drinking grain alcohol can be harmful).

145. 45 Md. App. 97, 412 A.2d 407 (1980).

146. American Laundry Mach. Indus. v. Horan, 45 Md. App. 97, 108, 412 A.2d 407, 414-15 (1980).

147. *See* J. ALLEE, PRODUCTS LIABILITY § 4.04(c)(3) (rev. ed. 1986).

148. *See* Braniff Airways v. Curtiss-Wright Corp., 411 F.2d 451 (2d Cir. 1969) (evidence that manufacturer of airplane engine knew that a change in the design of the engine had caused difficulties, and that the manufacturer took no effective remedies, was sufficient to allow the jury to decide whether manufacturer's negligence contributed to cause of crash).

149. 261 Md. 141, 274 A.2d 107 (1971).

150. Rekab, Inc. v. Frank Hrubetz & Co., 261 Md. 141, 142-48, 274 A.2d 107, 108-11 (1971). In *Rekab*, the manufacturer determined that the design of the shaft in an amusement park ride was dangerous after it sold the ride. *Id.* at 144, 274 A.2d at 109. The manufacturer warned the buyer of the danger posed by the defective shaft and then shipped a replacement shaft without charge. Despite the warning, the buyer continued to operate the ride with the defective shaft. The shaft broke and injured a rider. A judgment in favor of the manufacturer in the suit filed by the amusement park was upheld by the court of appeals. Among the facts the court found persuasive was that the manufacturer clearly notified the buyer of the danger created by the defective shaft and that the manufacturer shipped a new shaft which easily could have been replaced. *Id.* at 149, 274 A.2d at 112.

manufacturer not issued the post-sale warnings and made efforts to cure the design defect it presumably would have been held liable.

In contrast to the relatively simple task of proving negligence in a failure-to-warn case, proving negligence in a negligent design case can be especially difficult. The reasonableness standard may be difficult to apply because technical expertise is required in designing, manufacturing, and testing a product, and there are often no clear industry standards with which to compare the manufacturer's actions. Moreover, between the time of manufacture and injury, the product may pass through many hands, each with enough control to cause the injury through negligence.

In response to the difficulty of proving negligent design, courts have extended the doctrine of *res ipsa loquitur* to products liability. *Res ipsa loquitur* is an evidentiary rule that creates a rebuttable presumption of a defendant's negligence. The doctrine applies only if an event ordinarily would not have happened without negligence, the instrumentality which caused the injury was within the defendant's exclusive control, and no action by the plaintiff or a third party caused of the event.[151] It was applied, for example, to an electrical shock in a telephone booth[152] and the explosion of a soft drink bottle.[153]

The "patent danger" doctrine has made recovery for negligent design in product liability cases more difficult. Under this doctrine, there is no manufacturer negligence if the product functions properly and if the dangers of the product are known or obvious to the user. The Court of Special Appeals of Maryland has questioned the state's adherence to the patent danger rule. In *Banks v. Iron Hustler Corp.*,[154] the court stated that "the manufacturer of the obviously defective product ought not to escape because the product was obviously a bad one."[155] Although the court of appeals has recognized the patent danger rule repeatedly,[156] the rule has fallen out of favor across the country.[157] It is likely that the

151. Chesapeake & Potomac Tel. Co. v. Hicks, 25 Md. App. 503, 515, 337 A.2d 744, 752 (1975).

152. *Id.* In *Hicks* the Court of Special Appeals of Maryland held that the doctrine of *res ipsa loquitur* did not apply because the plaintiff, injured by an electrical shock in a telephone booth, failed to prove that the booth was in the exclusive control of the defendant telephone company. *Id.* at 535, 337 A.2d at 762. Had the plaintiff been able to establish the telephone company's exclusive control, presumably the doctrine could have been applied.

153. Giant Food, Inc. v. Washington Coca-Cola Bottling Co., 273 Md. 592, 332 A.2d 1 (1975). In *Giant Food*, the court applied the *res ipsa loquitur* doctrine to the retailer of the bottled soda but not to the bottler. *Id.* at 599, 332 A.2d at 5.

154. 59 Md. App. 408, 475 A.2d 1243 (1984).

155. Banks v. Iron Hustler Corp., 59 Md. App. 408, 422, 475 A.2d 1243, 1250 (1984) (quoting Palmer v. Massey-Ferguson, 3 Wash. App. 508, 517, 476 P.2d 713, 719 (1970)).

156. *See* Volkswagen of Am. v. Young, 272 Md. 201, 321 A.2d 737 (1974); Patten v. Logemann Bros., 263 Md. 364, 283 A.2d 567 (1971); Myers v. Montgomery Ward & Co., 253 Md. 282, 252 A.2d 855 (1969); Blankenship v. Morrison Mach. Co., 255 Md. 241, 257 A.2d 430 (1969).

157. The rule was formulated first by the Court of Appeals of New York in Campo v.

Maryland court of appeals will abandon the rule the next time the issue arises.[158]

C. *Warranty*

An individual injured by a product will often pursue a claim for breach of warranty under the Maryland Uniform Commercial Code (Code). The warranty may be an express warranty,[159] an implied warranty of merchantability,[160] or an implied warranty of fitness for a partic-

---

Scofield, 301 N.Y. 468, 95 N.E.2d 802 (1950), but abandoned by that court in Micallef v. Miehle Co., 39 N.Y.2d 376, 348 N.E.2d 571, 384 N.Y.S.2d 115 (1976). A majority of jurisdictions have rejected the rule. Gann v. International Harvester Co., 712 S.W.2d 100, 105-06 (Tenn. 1986).

158. Maryland's adoption and repeated reaffirmance occurred prior to the abandonment of the rule by New York and other jurisdictions. Maryland probably will follow the trend of discarding the rule when next presented with the opportunity.

159. MD. COM. LAW CODE ANN. § 2-313 (1975). The section provides:

> (1) Express warranties by the seller are created as follows:
>
> (a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.
>
> (b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.
>
> (c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.
>
> (2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.

Id.

The existence of an express warranty is generally a question of fact, as where a seller stated that he used a gasoline motor around the farm and that the motor "ran real good." The Court of Special Appeals of Maryland held that whether that comment was a statement of past experience and therefore not a warranty or whether the statement was a reference to the quality, capability, or condition of the motor was a question for the jury to answer. Barb v. Wallace, 45 Md. App. 271, 279, 412 A.2d 1314, 1316 (1980). Where a seller warranted a vehicle's merchantability and fitness for an ordinary purpose without setting out the terms and conditions for the warranty, the court of special appeals held that there could be no claim for breach of an express warranty absent an allegation that the representation constituted the basis of the sale. Thomas v. Ford Motor Credit Co., 48 Md. App. 617, 624, 429 A.2d 277, 283 (1981).

160. MD. COM. LAW CODE ANN. § 2-314 (1975 & Supp. 1986). The section provides:

> (1) Unless excluded or modified (§ 2-316), a warranty that the goods shall be merchantable is implied in a contract for their sale if the seller is a merchant with respect to goods of that kind. Under this section the serving for value of food or drink to be consumed either on the premises or elsewhere is a sale. Notwithstanding any other provisions of this title
>
> (a) In §§ 2-314 through 2-318 of this title, "seller" includes the manufacturer, distributor, dealer, wholesaler or other middleman or the retailer; and

ular purpose.[161] To recover in any warranty action one must prove: (1) a warranty existed; (2) the product did not conform to that warranty; and (3) the breach proximately caused the injury or damage.[162]

As injured parties increasingly rely on strict liability, warranty actions, like negligence actions, have declined in popularity. Nevertheless, warranty actions have one unique advantage. Under strict liability or negligence, an individual may recover for damages to property caused by a defective product only after establishing personal injury, or that a clear risk of death or personal injury existed.[163] Under a warranty claim, however, one may recover for purely economic damage.[164]

(b) Any previous requirement of privity is abolished as between the buyer and the seller in any action brought by the buyer.

(2) Goods to be merchantable must be at least such as
(a) Pass without objection in the trade under the contract description; and
(b) In the case of fungible goods, are of fair average quality within the description; and
(c) Are fit for the ordinary purposes for which such goods are used; and
(d) Run, within the variations permitted by the agreement, of even kind, quality and quantity within each unit and among all units involved; and
(e) Are adequately contained, packaged, and labeled as the agreement may require; and
(f) Conform to the promises or affirmations of fact made on the container or label if any.

(3) Unless excluded or modified (§ 2-316) other implied warranties may arise from course of dealing or usage of trade.

(4) Subsections (1) and (2) of this section apply to a lease of goods and a bailment for hire of goods that pass through the physical possession of and are maintained by the lessor, sublessor, or bailor.

Id.

By far the most successful of the warranties in product liability suits, the implied warranty of merchantability arises from the fact of sale. In contrast, the implied warranty of fitness for a particular purpose or the express warranty rely on the particular purpose envisioned by the buyer and seller in a transaction. *See* Anthony Pools v. Sheehan, 295 Md. 285, 455 A.2d 434 (1983).

161. MD. COM. LAW CODE ANN. § 2-315 (1975). This section provides:

(1) Where the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller's skill or judgment to select or furnish suitable goods, there is unless excluded or modified under the next section an implied warranty that the goods shall be fit for such purpose.

(2) The provisions of subsection (1) apply to a lease of goods and a bailment for hire of goods which pass through the physical possession of and are maintained by the lessor, sublessor, or bailor.

Id.

Under a warranty of fitness for a particular purpose a seller is obligated to provide goods to meet the buyer's particular purpose as made known to the seller. *Barb*, 45 Md. App. at 280-81, 412 A.2d at 1319.

162. Fischbach & Moore Int'l Corp. v. Crane Barge R-14, 632 F.2d 1123, 1125 (4th Cir. 1980) (citing Mattas, Inc. v. Hash, 279 Md. 371, 368 A.2d 993 (1977)).

163. *See* Council of Co-Owners Atlantis Condo., Inc. v. Whiting-Turner Contracting Co., 308 Md. 18, 33-41, 517 A.2d 336, 344-48 (1986).

164. The line of demarcation between physical harm to an individual's person and his

III. EMERGING THEORIES OF RECOVERY

A. The "Saturday Night Special" Opinion

As noted in this article's introduction, courts constantly reexamine the policies underlying the imposition of strict liability when confronted by circumstances in which one is injured by a product but is unable to recover under an established theory. The Court of Appeals of Maryland recently encountered such a situation in *Kelley v. R.G. Industries, Inc.*[165] In *Kelley*, the plaintiff was the victim of a handgun shooting that occurred during an armed robbery.[166] The plaintiff could not prevail on a section 402A strict liability claim, because the gun was not "defective" within the meaning of that section.[167] The plaintiff also could not prevail on an "abnormally dangerous activity" claim, because the injury did not result from the manufacturer's use of land, and a danger relating to the ownership or occupation of land had historically been required in such a claim.[168]

---

property, on one hand, and purely economic loss, on the other, reflects the line between tort and contract theories. *See* Alfred N. Koplin & Co. v. Chrysler Corp., 49 Ill. App. 3d 194, 198, 364 N.E.2d 100, 104 (1977). Because a pervasive statutory scheme governs warranty claims in product liability cases, it seems inappropriate to extend negligence law to situations where recovery for purely economic loss is sought. *See* Copiers, Typewriters & Calculators, Inc. v. Toshiba Corp., 576 F. Supp. 312, 326 (D. Md. 1983). The Court of Appeals of Maryland has recently indicated a willingness to reexamine the rule that prevents recovery for economic injuries under strict liability or negligence. *See Atlantis Condo.*, 308 Md. at 39, 517 A.2d at 344-45 (1986).

165. 304 Md. 124, 497 A.2d 1143 (1985).

166. Kelley v. R.G. Indus., 304 Md. 124, 128, 497 A.2d 1143, 1144 (1985).

167. *Id.* at 138, 497 A.2d at 1149. One of the plaintiff's grounds for recovery was that a handgun is an abnormally dangerous product such that manufacturers and marketers should be strictly liable under section 402A. The court rejected this argument because consumers ordinarily would expect a handgun to be dangerous because "its normal function is to propel bullets with deadly force." *Id.* at 136, 497 A.2d at 1148. The court noted that a handgun used in criminal activity is not "defective" in the sense that its design or construction is lacking in some way, and that in pursuing a strict product liability claim, the plaintiff "confuse[d] a product's *normal function*, which very well may be dangerous, with a defect in a product's design or construction." *Id.* Had the gun misfired, exploded, or otherwise malfunctioned, presumably it would have been considered "defective" under section 402A. *Id.*

168. *Id.* at 133, 497 A.2d at 1147. The formulation of the abnormally dangerous activity theory on which the plaintiff relied is contained in §§ 519 and 520 of the RESTATEMENT (SECOND) OF TORTS (1977). Section 519 provides that:

> (1) One who carries on an abnormally dangerous activity is subject to liability for harm to the person, land or chattels of another resulting from the activity, although he has exercised the utmost care to prevent the harm;
> (2) This strict liability is limited to the kind of harm, the possibility of which makes the activity abnormally dangerous.

RESTATEMENT (SECOND) OF TORTS § 519 (1977).

Section 520 provides:

> In determining whether an activity is abnormally dangerous, the following factors are to be considered:
>
> (a) existence of a high degree of risk of some harm to the person, land or chattels of others;

In *Kelley*, the court of appeals ruled that manufacturers and marketers of small, inexpensive handguns regularly used in criminal activity, sometimes referred to as "Saturday Night Specials," may be held "strictly liable to innocent persons who suffer gunshot injuries from the criminal use of their products."[169] Relying upon public policy, the court found that such handguns have virtually no legitimate uses and that the manufacturer or marketer of a Saturday Night Special "knows or ought to know that the chief use of the product is for criminal activity."[170] Application of the new cause of action could prove difficult. Although the potential class of plaintiffs is broad enough to include almost anyone injured intentionally or otherwise by a Saturday Night Special, it is not clear when a weapon may be classified properly as a Saturday Night Special. As the court conceded, "[t]here is no clear-cut, established definition of a Saturday Night Special . . . ."[171]

In extending strict liability to the manufacturers of nondefective products, the court of appeals focused on the manufacturer's knowledge that the product would be used for crime and relied upon a case where the manufacturers of slingshots knew that children would purchase and

---

(b) likelihood that the harm that results from it will be great;
(c) inability to eliminate the risk by the exercise of reasonable care;
(d) extent to which the activity is not a matter of common usage;
(e) inappropriateness of the activity to the place where it is carried on; and
(f) extent to which its value to the community is outweighed by its dangerous attributes.

RESTATEMENT (SECOND) OF TORTS § 520 (1977).

The court of appeals rejected this approach because the "thrust of the doctrine is that the activity be abnormally dangerous in relation to the area in which it occurs." Kelley v. R.G. Indus., 304 Md. 124, 133, 497 A.2d 1143, 1147 (1985). An example of an abnormally dangerous activity, the court stated, is the storage of gasoline in faulty storage tanks near a water supply. Such storage constitutes a dangerous activity, in which "the hazard bears a relation to the occupation and location of the land on which the activity occurs." *Id.* The court found that the dangers of a handgun used in a crime were different because the dangers "bear no relation to any occupation or ownership of land." *Id.*

169. *Kelley*, 304 Md. at 157, 497 A.2d at 1159.

170. *Id.* at 155, 497 A.2d at 1158.

171. *Id.* at 157, 497 A.2d at 1159. Nevertheless, there are certain characteristics of a Saturday Night Special:

> Relevant factors include the gun's barrel length, concealability, cost, quality of materials, quality of manufacture, accuracy, reliability, whether it has been banned from import by the Bureau of Alcohol, Tobacco and Firearms, and other related characteristics. Additionally, the industry standards, and the understanding among law enforcement personnel, legislators and the public, at the time the weapon was manufactured and/or marketed . . . must be considered. Because many of these factors are relative, in a tort suit a handgun should rarely, if ever, be deemed a Saturday Night Special as a matter of law. Instead, it is a finding to be made by the trier of facts.

Id. at 157-58, 497 A.2d at 1159-60.

"misuse" the product.[172] Whether manufacturer exploitation of such "foreseeable misuse" is a budding element, or an independent basis for strict liability in the products field, remains to be seen.

Criticism of the *Kelley* opinion came quickly and centered on three areas: (1) the court functioned in a legislative rather than judicial capacity; (2) the court decided an issue not before it; and (3) the court violated traditional jurisprudential standards.[173] As stated by two critics of *Kelley*, "Although the opinion was clearly intended by its drafters to apply to the perceived evil of a limited class of firearms . . . its dissonant reasoning could be applied to any product."[174] Proponents of the opinion were equally adamant in their support of the decision. One writer commended the court for taking action in an area of law which the legislature had "neglected," adding that the opinion "does not constitute improper judicial activism."[175] The legislative reaction has been mixed and an initial effort to overturn the *Kelley* opinion failed in the 1986 session of the Maryland General Assembly.[176]

The *Kelley* opinion is simply a statement of public policy by the Court of Appeals of Maryland.[177] Read narrowly, the scope of the opinion applies only to Saturday Night Specials. Read broadly, *Kelley* expands strict liability to manufacturers of products that are not in any way defective. In this latter regard, the *Kelley* opinion may open the door for the imposition of strict liability to other nondefective products where a plausible public policy argument could be fashioned to justify such liability. Sawed-off shotguns and switchblade knives could logically fall within the ambit of *Kelley*-type liability. Thus, *Kelley* sets a disconcerting precedent for future expansion of manufacturer liability.

B. Alternative Liability

Regardless of the cause of action, under Maryland law one seeking

---

172. *Id.* at 56, 497 A.2d at 1159. The case upon which the Court of Appeals of Maryland relied was Moning v. Alfano, 400 Mich. 425, 154 N.W.2d 759 (1977).
173. *See* Dorr & Burch, *Saturday Night Fever*, THE BRIEF, Winter 1986, at 10.
174. *Id.* at 15.
175. Note, *Saturday Night Specials: A "Special" Exception in Strict Liability Law*, 61 NOTRE DAME L. REV. 478, 493 (1986).
176. Senate Bill 151 and House Bill 1595 each would have had the result, if passed, of overturning the decision of the court of appeals in *Kelley*. S. 151 (1986); H.R. 1595 (1986). Neither bill survived the 1986 legislative session. *See* Library and Computer Div. of the Md. Dept. of Legislative Reference, *Final Status Report for the 1986 Session and the October 1985 Special Session of the General Assembly of Maryland*, 46, 140 (1986). A similar bill failed in the 1987 legislative session.
177. The basis of the *Kelley* opinion is that although no traditional cause of action exists for imposing liability on gun manufacturers, the common law is dynamic and the court is free to conform the law to contemporary conditions. Additionally, the imposition of strict liability to handguns is consistent with state and federal gun control legislation. As the court observed, "the policy implications of the gun control laws . . . reflects a governmental view that there is a handgun species, *i.e.*, the so-called Saturday Night Special, which is considered to have little or no legitimate purpose in today's society." *Kelley*, 304 Md. at 155, 497 A.2d at 1158.

recovery must prove that a defect exists, attribute that defect to a seller, and establish a causal connection between the injury and the defect.[178] If a manufacturer's product is not a cause-in-fact of one's harm, recovery will be denied.[179] Recently, litigation involving entire industries has forced courts to reexamine this traditional approach. Asbestos, generic or fungible products with the same or similar formulas, and toxic chemicals whose side effects have latent incubation periods are examples of products that present difficult problems of manufacturer identification. Some courts have addressed this problem by creating nontraditional theories of liability.

One such nontraditional theory is "alternative liability." *Summers v. Tice* provides a framework for the alternative liability theory.[180] In *Summers*, two hunters negligently fired their guns in the direction of the plaintiff. Although the plaintiff could prove negligence, he could not prove which hunter fired the shotgun pellets that hit him. Analogizing the situation to one in which an unconscious patient is injured on the operating table and cannot prove who injured him,[181] the Supreme Court of California reasoned that public policy must favor a plaintiff in such a case and created a new theory of liability which shifts the burden of proof on the issue of causation to the defendants.[182] The burden of proof is shifted to the defendants only if two conditions are satisfied: (1) the plaintiff must identify all of the parties whose negligence may have caused the injury;[183] and (2) the plaintiff must be incapable of proving which one of the defendants injured him, and not merely be unwilling to do so.[184]

The theory of alternative liability is flawed in that it presupposes that a plaintiff is able to identify all parties who may have been negligent and bring them before the court.[185] It may be impossible, however, to

178. Phipps v. General Motors Corp., 278 Md. 337, 344, 363 A.2d 955, 958 (1976); Jensen v. American Motors Corp., 50 Md. App. 226, 234, 437 A.2d 242, 247 (1981).

179. Lohrmann v. Pittsburgh Corning Corp., 782 F.2d 1156 (4th Cir. 1986). In *Lohrmann*, the court held that the plaintiff could recover from various defendant manufacturers of asbestos insulating materials only by proving that each manufacturer's product was a cause-in-fact of his disease. In this regard, the court noted that:

> As asbestosis litigation has developed over the past decade, most plaintiffs sue every known manufacturer of asbestos products, and during the course of discovery some of the defendants are dismissed on motions for summary judgment because there has been no evidence of any contact with any of such defendants' asbestos-containing products.

Id. at 1162. *See also* Gray v. United States, 445 F. Supp. 337, 338 (S.D. Tex. 1978) ("It is a fundamental principle of products liability law that a plaintiff must prove, as an essential element of his case, that a defendant manufacturer actually made the particular product which caused injury.").

180. 33 Cal. 2d 80, 199 P.2d 1 (1948).

181. *See* Ybarra v. Spangard, 25 Cal. 2d 486, 154 P.2d 687 (1944).

182. Summers v. Tice, 33 Cal. 2d 80, 86, 199 P.2d 1, 4 (1948).

183. *Id.* at 85-86, 199 P.2d at 3-4.

184. *Id.*

185. The court's decision in *Summers* is based on a situation in which all defendants were

join all potential defendants as litigants. Injuries caused by drugs, chemicals, and other products to which the doctrine might apply frequently are manifested long after purchase and use. Perhaps for this reason the doctrine of alternative liability has not been accepted in Maryland and other jurisdictions.[186]

C. *Concert of Action*

The concert of action theory of liability is premised on the belief that unreasonably dangerous group activity should be deterred by holding jointly and severally liable all who participate in that dangerous activity, even though only one participant actually caused the harm.[187] This theory is applied most often to drag racing on public roads, where the participants may be described as "wrongdoers acting in concert."[188]

---

before the court. As the *Summers* court explained, the shotgun pellets that injured the plaintiff could only have come from the gun of one or the other of the two defendants. *Id.* at 84, 199 P.2d at 3.

186. The doctrine has been rejected in California, Sindell v. Abbott Labs., 26 Cal. 3d 588, 607 P.2d 924, 163 Cal. Rptr. 132 (drug manufacturers could not be liable under alternative liability theory), *cert. denied*, 449 U.S. 912 (1980); Florida, Morton v. Abbott Labs., 538 F. Supp. 593 (M.D. Fla. 1982) (alternative liability theory not available because plaintiff could not prove defendants caused injury); and Georgia, Starling v. Seaboard Coast Line R.R., 533 F. Supp. 183 (S.D. Ga. 1982) (alternative liability theory has no basis in Georgia law). Only Michigan has applied the doctrine. *See* Abel v. Eli Lilly & Co., 418 Mich. 311, 343 N.W.2d 164 (1984) (alternative liability theory should be applied if plaintiffs meet all requirements). South Carolina has indicated that it might apply the doctrine under the proper facts. *See* Ryan v. Eli Lilly & Co., 514 F. Supp. 1004 (D. S.C. 1981) (where plaintiff named only 7 of 118 drug manufacturers, the manufacturers could not be liable under alternative liability theory). New Jersey applied alternative liability in Ferrigno v. Eli Lilly & Co., 175 N.J. Super. 551, 420 A.2d 1305 (1980) (where plaintiffs were unable to identify which defendants manufactured synthetic estrogen ingested by their mothers, it was appropriate to shift burden of proof from inculpator to exculpator). New Jersey's adoption of alternative liability was cast in doubt by the subsequent case of Namm v. Charles E. Frosst & Co., 178 N.J. Super. 19, 427 A.2d 1121 (1981) (theory of alternative liability would not be adopted in products liability action brought against some, but not all, manufacturers of pharmaceutical DES by plaintiffs whose mothers had taken DES while pregnant, because the imposition of such liability would abandon altogether traditional concepts and basic principles).

187. The basic formulation of the theory is contained in section 876 of the Restatement (Second) of Torts, which provides:

> For harm resulting to a third person from the tortious conduct of another, one is subject to liability if he
>
> (a) does a tortious act in concert with the other or pursuant to a common design with him, or
>
> (b) knows that the other's conduct constitutes a breach of duty and gives substantial assistance or encouragement to the other so to conduct himself, or
>
> (c) gives substantial assistance to the other in accomplishing a tortious result and his own conduct, separately considered, constitutes a breach of duty to the third person.

RESTATEMENT (SECOND) OF TORTS § 876 (1977).

188. Bierczynski v. Rogers, 239 A.2d 218, 221 (Del. 1968). In *Bierczynski*, the Supreme Court of Delaware upheld a verdict in favor of two motorists who were injured by

Under the concert of action theory, participants in the act may be held jointly liable even if a particular participant can show that someone else caused the victim's injuries. Unlike alternative liability, the concert of action theory does not shift the burden of proof on the issue of causation to the defendants; rather, it allows liability against all parties involved in the activity once causation has been proved.

In *Cousineau v. Ford Motor Co.*,[189] the Court of Appeals of Michigan reversed the trial court's dismissal of a plaintiff's concert of action claim against several manufacturers of wheels.[190] The plaintiff sustained her burden by proving, with adequate documentary evidence, that the various defendants tortiously carried out a common plan by failing to warn that the mismatching of wheel components was dangerous and by alleging that the defendants knew of the danger their products posed.[191] Further, the plaintiff showed that the defendants chose to issue charts depicting which components were safely interchangeable rather than change the design of the components. The court found that "[t]his conduct . . . could indicate a tacit understanding and mutual encouragement to refrain from taking more reasonable steps to prevent the danger posed by the multi-piece wheel rims."[192] *Cousineau* demonstrates that a concert of action claim requires proof of an agreement or, at the very least, a tacit understanding among the defendants.[193] Whether the evidence in *Cousineau* would sustain a judgment against the defendants was not resolved, but the allegations were sufficient to deny a motion for summary judgment in favor of the defendants.[194]

A fundamental problem with the concert of action theory is that it may be applied where the actual wrongdoer is known to the plaintiff, but where the plaintiff wishes to include other defendants with greater resources to pay damages. Where a plaintiff can show some tacit understanding among the members of an industry, he can include in his complaint more solvent members even though a less solvent member was the actual wrongdoer. This ability to reach a less culpable defendant has led many courts to reject the concert of action theory in product liability

---

one of two teenagers drag racing on a public highway. The teenager not directly involved in the accident challenged the verdict for the plaintiff on the basis that he was not directly involved in the accident. The court disagreed, and held that "as a general rule, participation in a motor vehicle race on a public highway is an act of concurrent negligence imposing liability on each participant for any injury to a non-participant resulting from the race." *Id.* *See also* Ogle v. Avina, 33 Wis. 2d 125, 146 N.W.2d 422 (1966); Agovino v. Kunze, 181 Cal. App. 2d 591, 5 Cal. Rptr. 534 (1960).

189. 140 Mich. App. 19, 363 N.W.2d 721 (1985).
190. Cousineau v. Ford Motor Co., 140 Mich. App. 19, 38, 363 N.W.2d 721, 731 (1985).
191. *Id.* at 33-34, 363 N.W.2d at 729.
192. *Id.* at 34, 363 N.W.2d at 729.
193. *Id.* at 32, 363 N.W.2d at 728. *See also* Collins v. Eli Lilly & Co., 116 Wis. 2d 166, 184, 342 N.W.2d 37, 46 (1984) (the "substantial amount" of parallel action by the defendants in the manufacture and marketing of DES failed to rise to the level of acting in concert).
194. *Cousineau*, 140 Mich. App. at 35, 363 N.W.2d at 729.

cases.[195]

D. Enterprise Liability

Industry-wide or enterprise liability may be imposed against the members of an entire industry if the industry-wide standard is the cause of the injuries. The origins of enterprise liability may be found in *Hall v. E.I. Du Pont de Nemours & Co.*,[196] a case that involved a series of accidents caused by defective blasting caps. In *Hall*, a federal district court invented a rule to resolve the problem that arises when a plaintiff is injured by a generic product which cannot be traced to a specific manufacturer. The plaintiff in *Hall* requested that various defendants be held jointly and severally liable because they consciously agreed to provide inadequate safety warnings.[197] The court held that the plaintiffs stated a cause of action because they would be able to show some type of agreement, whether express or tacit, among all the defendants. The court also decided that the plaintiffs could shift the burden of proof on the causation issue merely by demonstrating that the defendants independently adhered to industry-wide standards governing the features of the product alleged to be inadequate.[198]

The scope of enterprise liability remains largely undefined. According to *Hall*, the doctrine generally should be applied to centralized, and not decentralized, industries.[199] To date, enterprise liability has not been accepted as a viable theory by any other court.[200] The most significant contribution of enterprise liability was in setting the stage for "market share liability."

---

195. *See, e.g.*, Morton v. Abbott Labs., 538 F. Supp. 593 (M.D. Fla. 1982) (court refused to find drug manufacturers liable under the concert of action theory because the manufacturers' activities failed to suggest any concerted tortious activity); Ryan v. Eli Lilly & Co., 514 F. Supp. 1004 (S.D.S.C. 1981) (drug manufacturers could not be held liable under concert of action theory because plaintiff could not prove a common plan among manufacturers); Sindell v. Abbott Labs., 26 Cal. 3d 588, 607 P.2d 924, 163 Cal. Rptr. 132 (drug manufacturer could not be held liable under concert of action theory), *cert. denied*, 449 U.S. 912 (1980).

196. 345 F. Supp. 353 (E.D.N.Y. 1972).

197. Hall v. E.I. Du Pont de Nemours & Co., 345 F. Supp. 353, 359 (E.D.N.Y. 1972).

198. *Id.* at 374.

199. *Id.* at 378. The same court that decided *Hall* recently suggested that enterprise liability might apply in "Agent Orange" cases where there was only a handful of producers of a chemical defoliant because the defendants failed to warn of the product's dangers while profiting from the sale. *In re* "Agent Orange" Prod. Liab. Litig., 597 F. Supp. 740, 821-22 (E.D.N.Y. 1984).

200. *See* Note, *Market Share Liability: Is California a Mere Gadfly on the Products Liability Scene or Is It a Harbinger of a National Trend?*, 11 OHIO N.U. L. REV. 129, 143 (1984). Enterprise liability was rejected in Cousineau v. Ford Motor Co., 140 Mich. App. 19, 363 N.W.2d 721 (1985); Namm v. Charles E. Frosst & Co., 178 N.J. Super. 19, 427 A.2d 1121 (1981); *Ryan*, 514 F. Supp. 1004; *Sindell*, 26 Cal. 3d 588, 607 P.2d 924, 163 Cal. Rptr. 132.

E. Market Share Liability

No decision has gone further in erasing the traditional boundaries of liability than the opinion of the Supreme Court of California in *Sindell v. Abbott Laboratories*.[201] The plaintiffs in *Sindell* were the daughters of women who took the miscarriage preventative drug diethylstil bestrol (DES) while the plaintiffs were still *in utero*.[202] The *Sindell* plaintiffs, and other women exposed to DES, later developed cancerous and precancerous conditions that did not manifest until after a minimum latency period of ten to twelve years. By the time the drug's effects were known, the plaintiffs were unable to identify the manufacturers of the DES their mothers had taken.[203] The court framed the issue as follows: "May a plaintiff, injured as a result of a drug administered to her mother during pregnancy, who knows the type of drug involved but cannot identify the manufacturer of the precise product, hold liable for her injuries a maker of a drug produced from a similar formula?"[204]

The court answered the question affirmatively, with one important condition; the plaintiff must name as defendants a "substantial share" of those manufacturers known to have produced the defective product. In *Sindell*, for the first time, liability was based on the concept of punishing wrongful conduct regardless of whether the wrongful conduct of a given defendant actually caused the injuries of the plaintiffs.[205] In arriving at this result, the court considered and refused to apply the *Summers* alternative liability theory, the concert of action theory, or the enterprise liability theory.[206] The court rejected those theories and created "market share liability" because the existing theories would allow one defendant to be held liable for the damages caused by an entire industry even when that defendant played a small role, if any, in causing the harm.[207]

Market share liability, as articulated in *Sindell*, combines the alternative liability theory for the purpose of establishing liability and the en-

201. 26 Cal. 3d 588, 607 P.2d 924, 163 Cal. Rptr. 132, *cert. denied*, 449 U.S. 12 (1980).
202. Sindell v. Abbott Labs, at 593-94, 607 P.2d at 925, 163 Cal. Rptr. at 133.
203. *Id.* at 593-94, 607 P.2d at 925, 163 Cal. Rptr. at 133-34.
204. *Id.* at 593, 607 P.2d at 925, 163 Cal. Rptr. at 133.
205. *Id.* at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.
206. *Id.* at 599-610, 607 P.2d at 928-35, 163 Cal. Rptr. at 136-43. Regarding the *Summers* alternative liability theory, the court stated that, "[t]here may be a substantial likelihood that none of the five defendants joined in the action made the DES which caused the injury, and that the offending producer not named would escape liability altogether." *Id.* at 603, 607 P.2d at 931, 163 Cal. Rptr. at 139. As to the concert of action claim, the court explained that the defendants did little more than follow the "common practice of an industry." Imposing liability under concert of action "would expand the doctrine far beyond its intended scope and would render virtually any manufacturer liable for the defective products of an entire industry, even if it could be demonstrated that the product which caused the injury was not made by the defendant." *Id.* at 605, 607 P.2d at 933, 163 Cal. Rptr. at 141. Enterprise liability was rejected for similar reasons. In addition, it was rejected due to its unsuitability for an industry composed of a large number of manufacturers. *Id.* at 609-10, 607 P.2d at 934-39, 163 Cal. Rptr. at 142-43.
207. *Id.*

terprise liability theory for the purpose of apportioning damages. The *Sindell* court held that where one joins as defendants the manufacturers of a substantial share of a particular market, the burden then shifts to each manufacturer to establish that it could not have produced the product.[208] The court then apportions damages among those manufacturers unable to show they could not have produced the product by multiplying each defendant's share of the market by the amount awarded to the injured party.[209] Through this formula, the court hoped to avoid a situation in which some manufacturers would be compelled to pay a disproportionately large share of damages.[210]

In the wake of *Sindell*, two problems are apparent. First, it is unclear what constitutes a substantial share of the market. In *Sindell*, there was an assertion that the defendants controlled ninety percent of the market.[211] The court referred to a Note in the *Fordham Law Review*[212] suggesting that seventy-five to eighty percent constituted a substantial share of the market.[213] The court rejected this percentage requirement without recommending some other minimum level,[214] but maintained that a substantial percentage of the market share is required.

Second, it also is unclear whether one should define a market in terms of geography or in terms of a certain period of time. The *Sindell* court dismissed these problems as "largely matters of proof which properly cannot be determined at the pleading stage of these proceedings."[215] Perhaps for the same reason, the court did not indicate whether a plaintiff who sues only ninety percent of the market would be entitled to recover only ninety percent of her damages.

Some courts have rejected the *Sindell* market share approach in favor of a modified market share approach because *Sindell* imposes on the plaintiff the practical difficulty of identifying a substantial share of the market participants and of proving the proportionate market share of each participant.[216] Under the modified market share approach, the defendant may proceed against a single defendant known to have produced the defective product or one similar to it. The burden then shifts to the defendant to identify and join as defendants other manufacturers engaged in producing and distributing that product at the time of the plaintiff's injury.[217] Market share liability was created specifically for a unique

208. *Id.* at 610-13, 607 P.2d at 937, 163 Cal. Rptr. at 144-46.
209. *Id.*
210. *Id.*
211. *Id.* at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.
212. Note, *DES and a Proposed Theory of Enterprise Liability*, 46 FORDHAM L. REV. 963 (1978).
213. *Id.* at 996.
214. *Sindell*, 26 Cal. 3d at 612, 607 P.2d at 937, 163 Cal. Rptr. at 145.
215. *Id.* at 613 n.29, 607 P.2d at 938 n.29, 163 Cal. Rptr. at 145 n.29.
216. Martin v. Abbott Labs., 102 Wash. 2d 581, 689 P.2d 368 (1984); Collins v. Eli Lilly & Co., 116 Wis. 2d 166, 342 N.W.2d 37 (1984).
217. The Supreme Court of Wisconsin explained why the burden of identifying market participants should rest with the named defendant rather than with the plaintiff:

species of cases involving DES.[218] Courts undoubtedly will look to this theory in the future as other similar products are alleged to have caused latent injuries.

Some states have refused to recognize market share liability.[219] Others have accepted either the *Sindell* approach[220] or the modified approach.[221] Maryland appellate courts have not discussed any form of market share liability. Thus, it is yet to be determined whether Maryland, when faced with *Sindell* type facts, would apply market share liability in either its strict or modified form.

IV. ESTABLISHED DEFENSES

The development of defenses in a product liability action has been less dramatic than the emergence of new theories of liability. Traditionally, the defenses of misuse, alteration of product, contributory negligence, and assumption of risk were the only defenses available in product liability actions.[222] Recently, defenses based on the conduct of the injured party or other third parties have evolved. These defenses include

---

> [T]he defendant is in a better position than the plaintiff to determine which other drug companies may share liability. We recognize that many drug companies do not have the relevant records, but they, as participants in the DES market, presumably have more information or potential access to relevant information than does the plaintiff.

Collins, 116 Wis. 2d 166, 193, 342 N.W.2d 37, 50. For this reason, the plaintiff need only file suit against a single defendant. As stated by the Supreme Court of Washington in *Martin*, 102 Wash. 2d 581, 689 P.2d 368, the plaintiff need only allege,

> [T]hat the plaintiff's mother took DES; that DES caused the plaintiff's subsequent injuries; that the defendant produced or marketed the type of DES taken by the plaintiff's mother; and that the defendant's conduct in producing or marketing the DES constituted a breach of a legally recognized duty to the plaintiff.

Id. at 594, 689 P.2d at 382 (quoting *Collins*, 116 Wis. 2d at 193-94, 342 N.W.2d at 50).

218. Along with *Sindell*, other courts have imposed market share liability in DES cases. *See, e.g.*, McElhaney v. Eli Lilly & Co., 564 F. Supp. 265, 270 (C.D. S.D. 1983); Mertan v. E.R. Squibb & Sons, 141 Cal. App. 3d 511, 190 Cal. Rptr. 349 (1983); Miles Labs. v. Superior Court, 133 Cal. App. 3d 587, 184 Cal. Rptr. 98, 103 (1982).

219. *See* Starling v. Seaboard Coast Line R.R., 533 F. Supp. 183 (S.D. Ga. 1982) (in asbestosis case, market share liability is not recognizable under Georgia law); Morton v. Abbott Labs., 538 F. Supp. 593 (M.D. Fla. 1982) (eight of 149 manufacturers of DES could not be held liable under Florida law under either the concert of action theory or under the market share liability theory); Tidler v. Eli Lilly & Co., 95 F.R.D. 332 (D. D.C. 1982) (the District of Columbia refused to recognize market share liability in a DES case); Mizell v. Eli Lilly & Co., 526 F. Supp. 589 (D.S.C. 1981) (South Carolina refused to recognize market share liability in a DES case); Namm v. Charles E. Frosst & Co., 178 N.J. Super. 19, 427 A.2d 1121 (1981) (New Jersey refused to adopt market share liability because adoption of that liability would result in extensive policy change).

220. *See supra* note 218.

221. *See Collins*, 116 Wis. 2d 166, 342 N.W.2d 37; *Martin*, 102 Wash. 2d 581, 689 P.2d 368.

222. The Court of Appeals of Maryland in Phipps v. General Motors Corp., 278 Md. 337, 363 A.2d 955 (1976) observed:

the sophisticated user defense and the informed intermediary defense. Both represent a refined understanding of the causes of injury. The established theories of defense, however, are still prominent in product liability litigation.

A. Assumption of Risk

The premise underlying the assumption of risk defense is that an injured party should not recover if he discovers a defect in a product, is aware of the danger, and uses the product nonetheless.[223] This defense may be employed regardless of the plaintiff's theory of recovery.[224] In *Ellsworth v. Sherne Lingerie, Inc.*,[225] the Court of Appeals of Maryland expressly recognized assumption of risk as an affirmative defense in a product liability case.[226] The court noted that a defendant relying on assumption of risk must prove: (1) the plaintiff actually knew and appreciated the particular risk or danger created by the defect; (2) the plaintiff

---

> Under § 402A, various defenses are still available to the seller in an action based on strict liability in tort. These defenses are set forth and explained in the official comments following § 402A. For example, the seller is not liable where injury results from abnormal handling or use of the product (Comment h), where mishandling or alteration after delivery of the product renders it unsafe (Comment g), or if warnings or instructions supplied with the product are disregarded by the consumer where, if used in accordance with these warnings, the product would be safe (Comment j). Additionally, where the plaintiff unreasonably proceeds to use a product despite a known risk or danger, the defense of assumption of the risk is still available (Comment n).

Id. at 346, 363 A.2d at 959-60. It is unclear whether the court of appeals intended to adopt the defenses or whether the court was merely discussing the impact of the defenses. Since *Phipps*, the court of appeals has dealt with several defenses: assumption of the risk, in Ellsworth v. Sherne Lingerie, Inc., 303 Md. 581, 495 A.2d 348 (1985) and Anthony Pools v. Sheehan, 295 Md. 285, 455 A.2d 434 (1983); misuse, in *Ellsworth*, 303 Md. 581, 495 A.2d 348; and contributory negligence, which generally is not a defense in a strict liability claim, in *Anthony Pools*, 295 Md. 285, 455 A.2d 434.

223. RESTATEMENT (SECOND) OF TORTS 402A comment n (1965) provides:

> [T]he form of contributory negligence which consists in voluntarily and unreasonably proceeding to encounter a known danger, and commonly passes under the name of assumption of risk, is a defense under this Section as in other cases of strict liability. If the user or consumer discovers the defect and is aware of the danger and nevertheless proceeds unreasonably to make use of the product and is injured by it, he is barred from recovery.

See also Ellsworth, 303 Md. at 597, 495 A.2d at 356.

224. In Maryland, assumption of the risk always has been a defense in all tort cases, although the standard is less demanding in negligence than in strict liability. Under a negligence standard, the defendant does not have to show that the plaintiff acted unreasonably in encountering the risk. *See* Rogers v. Frush, 257 Md. 233, 262 A.2d 549 (1970); Erdman v. Johnson Bros., 260 Md. 190, 271 A.2d 744 (1970). *Erdman* predated Maryland's adoption of strict liability in tort, but the facts of *Erdman* lend themselves to that cause of action. Although *Erdman* primarily discusses the defense of contributory negligence, the analysis is appropriate for assumption of risk.

225. 303 Md. 581, 495 A.2d 348 (1985).

226. *Id.* at 597, 495 A.2d at 356.

voluntarily encountered the risk while realizing the danger; and (3) the plaintiff's decision to encounter the known risk was unreasonable.[227] Although the assumption of risk defense has been recognized, no Maryland appellate court has had the opportunity to discuss the elements of the defense as applied to product liability law.

As a defense against a strict liability claim, assumption of risk requires a demonstration that the plaintiff knew the product was defective. Mere failure to discover the defect is an insufficient basis for assertion of the defense. Such an allegation interjects into the assumption of risk defense traditional notions of contributory negligence, which generally is not a defense to an action based on strict liability in tort.[228]

Beyond showing that the plaintiff knew of the defect involved, the majority of courts require that the defendant prove that the plaintiff fully understood the danger of the product.[229] Some courts have held that proof of the assumption of risk defense may be by proof that the plaintiff either knew or should have known of the particular danger.[230] Most courts, however, require the defendant to meet the heavier burden of showing that the plaintiff had actual or subjective knowledge of the danger.[231] Maryland applies a subjective test to gauge the plaintiff's knowledge of the danger.[232] Under this approach, courts consider the plaintiff's knowledge, understanding, and appreciation of the danger, rather than the mythical "reasonably prudent person" employed in contributory negligence cases. The plaintiff's subjective state of mind also may be inferred from extrinsic circumstances.[233]

The second element of the assumption of risk defense is that the

---

227. *Id.* at 597, 495 A.2d at 356.

228. RESTATEMENT (SECOND) OF TORTS § 402A comment n (1965) ("Contributory negligence of the plaintiff is not a defense when such negligence consists merely in a failure to discover a defect in a product, or to guard against the possibility of its existence.").

229. *See, e.g.*, Christner v. E.W. Bliss Co., 524 F. Supp. 1122 (M.D. Pa. 1981); Rhoads v. Serv. Mach. Co., 329 F. Supp. 367 (E.D. Ark. 1971); Culp v. Reynord and Booth-Rouse Equip. Co., 38 Colo. App. 1, 553 P.2d 844 (1976); Wilson v. Norfolk & W. Ry. Co., 109 Ill. App. 3d 79, 440 N.E.2d 238 (1982); Hughes v. Magic Chef, Inc., 288 N.W.2d 542 (Iowa 1980); Harris v. Atlanta Stove Works, 428 So. 2d 1040 (La. App.), *cert. denied*, 434 So. 2d 1106 (La. 1983); Kuiper v. Goodyear Tire & Rubber Co., 673 P.2d 1208 (Mont. 1983); Brown v. North Am. Mfg. Co., 176 Mont. 98, 576 P.2d 711, *rev'd on other grounds sub nom.* Zaharte v. Strurm, Ruger & Co., 661 P.2d 17 (Mont. 1983); Mauch v. Manufacturers Sales & Serv., 345 N.W.2d 338 (N.D. 1984); Olson v. A.W. Chesterton Co., 256 N.W.2d 530 (N.D. 1977); Smith v. Smith, 278 N.W.2d 155 (S.D. 1979); Ellithorpe v. Ford Motor Co., 503 S.W.2d 516 (Tenn. 1973); Klein v. R.D. Werner Co., 98 Wash. 2d 316, 654 P.2d 94 (1982).

230. *See* Ganji v. Sears, Roebuck & Co., 33 Conn. Supp. 81, 360 A.2d 907 (1976) (a defendant must prove that a plaintiff had, or ought to have had, knowledge and comprehension of the particular peril to which he was exposed and that he then continued to expose himself to it).

231. *See infra* note 239.

232. Sheehan v. Anthony Pools, 50 Md. App. 614, 625-26 nn.10, 11, 440 A.2d 1085, 1091-92 nn.10, 11 (1982), *aff'd*, 295 Md. 285, 455 A.2d 434 (1983).

233. *Id.*

plaintiff voluntarily encountered the risk while realizing the danger.[234] Typically, the issue of the plaintiff's voluntariness arises in two situations. In the first, the plaintiff argues that his contact with the hazardous condition was inadvertent. The distinction between inadvertent and intentional contact was considered by the Court of Special Appeals of Maryland in *Banks v. Iron Hustler Corp.*[235] In *Banks*, an employee injured his hand in a conveyor belt. It was unclear whether the employee intentionally placed his hand in an area which he knew to be dangerous, or whether he tripped and inadvertently came into contact with the conveyor belt. This uncertainty caused the court to conclude that whether the defendant voluntarily accepted the risk as to allow the assumption of risk defense was a question for the jury.[236] In support of this position, the court quoted *Kessler v. Bowie Machine Works*:[237]

> To support an assumption of risk defense . . . it is well established that the defendant must show that an employee not only had knowledge of the existence of the risk and an appreciation of its character but also that he voluntarily accepted this risk, *i.e.*, that he had a sufficient amount of time and enough knowledge and experience to make an intelligent choice.[238]

The second situation in which the voluntariness question arises is when an employee recognizes a danger and complains to his employer, who then either forces the employee to continue working and the employee is injured, or instructs the employee to stop working, but the employee ignores the instruction and is injured. In the first instance, the employee's action probably would not be considered voluntary, although one court found voluntariness in such a situation.[239] In the second instance, the accident probably would be considered voluntary.[240]

The third element of the assumption of risk defense is that the plaintiff's decision to encounter the known risk be unreasonable.[241] By its very nature, this requirement generates issues to be resolved by the jury. The requirement contemplates a review by the fact finder to determine

---

234. *Id.* at 626 n.11, 440 A.2d at 1092 n.11.

235. 59 Md. App. 408, 475 A.2d 1243 (1984).

236. Banks v. Iron Hustler Corp., 59 Md. App. 408, 434, 475 A.2d 1243, 1256.

237. 501 F.2d 617 (8th Cir. 1974).

238. Kessler v. Bowie Mach. Works, 501 F.2d 617, 621 (8th Cir. 1974). This general principle was applied in Beacham v. Lee-Norse, 714 F.2d 1010 (10th Cir. 1983) (evidence that user of roof bolter slipped or lost balance and instinctively grabbed bolter, severing four fingers, precluded finding that user voluntarily encountered risk).

239. Fore v. Vermeer Mfg. Co., 7 Ill. App. 3d 346, 349, 287 N.E.2d 526, 528 (1972) (mere fact that employee exposed himself to an abnormal risk because he feared he would lose his job does not make employee's action involuntary).

240. *See* Haines v. Powermatic Houdailie, Inc., 661 F.2d 94, 96 (8th Cir. 1981); Colson v. Allied Prod. Corp., 640 F.2d 5, 7 (5th Cir. 1981).

241. *Anthony Pools*, 50 Md. App. at 626 n.11, 440 A.2d at 1092 n.11.

whether the plaintiff acted reasonably in light of all the facts and circumstances involved in the event that caused the injury.

In Maryland, the plaintiff is barred from recovery once a defendant has established that the plaintiff assumed the risk, even if the plaintiff was only at fault to a small degree.[242] The majority of jurisdictions have rejected this all-or-nothing approach in favor of comparative fault principles, under which the liability is apportioned between the plaintiff and the defendant in proportion to their respective degrees of fault.[243] Under the comparative fault approach, the plaintiff's assumption of risk is but one factor considered in determining liability.[244] Maryland has not yet adopted the comparative fault approach.

B. Misuse

A manufacturer is not liable under any theory if its product becomes dangerous as a result of "misuse." Generally, a manufacturer is under no duty to design safeguards for a product in anticipation of its misuse.[245] In the strict liability context, comment h of section 402A establishes the widely followed basis for the misuse defense:

> A product is not in a defective condition when it is safe for normal handling and consumption. If the injury results from abnormal handling, as where a bottled beverage is knocked against a radiator to remove the cap, or from abnormal preparation for use, as where too much salt is added to food, or from abnormal consumption, as where a child eats too much candy and is made ill, the seller is not liable.[246]

The general rule is that a product is misused when it is not used in a manner which is reasonably foreseeable.[247] Jurisdictions are split, how-

---

242. Maryland has recognized the assumption of risk defense to a negligence claim. *See* Rogers v. Frush, 257 Md. 233, 262 A.2d 579 (1970).
243. *See infra* note 272 and accompanying text. *See also* Daly v. General Motors Corp., 20 Cal. 3d 725, 575 P.2d 1162, 144 Cal. Rptr. 380 (1978) (court abolished assumption of risk as a complete defense and adopted comparative fault).
244. *See* Zahrte v. Sturm, Ruger & Co., 661 P.2d 17 (Mont. 1983); Trust Corp. of Mont. v. Piper Aircraft Corp., 506 F. Supp. 1093 (D. Mont. 1981), *aff'd*, 701 F.2d 85 (9th Cir. 1983).
245. *See* Westerman v. Sears, Roebuck & Co., 577 F.2d 873 (5th Cir. 1978); Latimer v. General Motors Corp., 535 F. Supp. 1020 (7th Cir. 1976).
246. RESTATEMENT (SECOND) OF TORTS § 402A comment h (1965).
247. Maryland adopted this standard in Ellsworth v. Sherne Lingerie, Inc., 303 Md. 581, 595-96, 495 A.2d 348, 355 (1985). A wide range of uses are held misuses because they are not reasonably foreseeable. *See, e.g.*, Kay v. Cessna Aircraft Co., 548 F.2d 1370, 1372-73 (9th Cir. 1977) (failure to comply with airplane instruction manual); McDevitt v. Standard Oil Co., 391 F.2d 364, 370 (5th Cir. 1968) (installation of wrong size tires where plaintiff had been furnished with manufacturer's instructions regarding proper tire size); O'Keefe v. Boeing Co., 335 F. Supp. 1104, 1133 (S.D.N.Y. 1971) (overloading airplane); McCormick v. Bucyrus-Erie Co., 81 Ill. App. 3d 154, 162-63, 400 N.E.2d 1009, 1015-16 (1980) (use of counterweights on crane in excess of OSHA safety rules); Brandenburg v. Weaver Mfg. Co., 77 Ill.

ever, as to whether misuse is an affirmative defense, or whether it is an element of the plaintiff's claim.[248] In *Ellsworth v. Sherne Lingerie, Inc.*,[249] the Court of Appeals of Maryland held that misuse is an element of the plaintiff's claim:

> Because defectiveness and causation are elements which must be proved by the plaintiff, we conclude that misuse is not an affirmative defense. Misuse, therefore, is a "defense" only in the sense that proof of misuse negates one or more essential elements of a plaintiff's case, and may thereby defeat recovery.[250]

Unlike some jurisdictions, Maryland has broadened the reasonably foreseeable standard for determining misuse by means of the "general field of danger" test.[251] Under this test, a defendant asserting a misuse defense must go beyond showing that a specific use was not reasonably foreseeable. The defendant must show that "the general field of danger" was not reasonably foreseeable. In *American Laundry Machine Industries v. Horan*,[252] the plaintiff was able to recover for injuries sustained when an industrial dryer disintegrated, strewing schrapnel, after the plaintiff had attempted to dry a large hot air balloon in the machine.[253] Similarly, in *LeBouef v. Goodyear Tire & Rubber Co.*,[254] the court held that where a tire manufacturer failed to warn as to the safe speed for its tires and one of its tires blew out at a speed in excess of 100 m.p.h., plaintiff can recover for injury caused by that blowout.[255]

App. 2d 374, 379, 222 N.E.2d 348, 350 (1966) (use of an automobile jack that the plaintiff knew was not suited for use on a particular make of vehicle).

248. *See* Ellsworth v. Sherne Lingerie, Inc., 303 Md. 581, 592-93, 495 A.2d 348, 355 (1985). Alabama, Colorado, Connecticut, Florida, Idaho, Nebraska, New Mexico, Ohio, Oklahoma, Oregon, Tennessee, Texas, Utah, and Washington have held that misuse is an affirmative defense. Arizona, Illinois, Iowa, Mississippi, Missouri, and North Dakota have held that the plaintiff has the burden of proving the absence of misuse as part of either or both of the issues of defectiveness and proximate cause. *Id.* at 593-94, 495 A.2d at 355-56.

249. 303 Md. 581, 495 A.2d 348 (1985). In *Ellsworth*, the plaintiff was injured when the nightgown she was wearing inside out with a pocket protruding brushed against a hot burner on an electric stove and caught fire. *Id.* at 588, 495 A.2d at 351. The plaintiff alleged that her injuries were the result of a failure to make the gown flame-resistant and a failure to warn of the danger that the gown could catch fire. *Id.* at 587, 495 A.2d at 351. The court found that it was entirely foreseeable to the manufacturer that the apparel would be worn inside out and close to sources of ignition. *Id.* at 598, 495 A.2d at 357. The court held that such use of the nightgown was not "misuse" which would preclude recovery. *Id.* at 598, 495 A.2d at 356.

250. *Id.* at 597, 495 A.2d at 356.

251. *See* Moran v. Faberge, Inc., 273 Md. 538, 551, 332 A.2d 11, 19 (1975); American Laundry Mach. Indus. v. Horan, 45 Md. App. 97, 104, 412 A.2d 407, 413 (1980).

252. 45 Md. App. 97, 412 A.2d 407 (1980).

253. American Laundry Mach. Indus. v. Horan, 45 Md. App. 97, 100, 412 A.2d 407, 411 (1980).

254. 451 F. Supp. 253 (W.D. La. 1978), *aff'd*, 623 F.2d 985 (5th Cir. 1980).

255. LeBouef v. Goodyear Tire & Rubber Co., 451 F. Supp. 253, 257 (W.D. La. 1978), *aff'd*, 623 F.2d 985 (5th Cir. 1980).

In *Ellsworth*,[256] the court of appeals held that assumption of risk was an affirmative defense but misuse was not.[257] The court also held that the related concept of contributory negligence is not a defense to strict liability in a products liability case.[258] The court stated that the conduct that operates to defeat recovery may in fact be negligent, but the plaintiff is barred only because such conduct constitutes misuse or assumption of risk, not because it constitutes contributory negligence.[259]

Contributory negligence is always a defense to a claim of negligence. For this reason, the court in *Ellsworth* declined to adopt a *per se* rule that the trial court must instruct the jury that contributory negligence is not a defense to strict liability. Nevertheless, when both negligence and strict liability are present, and the same conduct may conceivably constitute both contributory negligence and misuse, the court found an instruction that contributory negligence is inapplicable might be misleading.[260] The court left the issue to the discretion of the trial judge.[261] In jurisdictions that have replaced contributory negligence with comparative fault, misuse, like assumption of risk, is but one of many factors to be taken into consideration in apportioning the fault among the parties. Thus, misuse is not a complete defense in those jurisdictions,[262] as it is in Maryland.

C. *Alteration of Product*

Under certain circumstances, the alteration of a product after it leaves the seller's possession may render the product defective and unreasonably dangerous. Under section 402A(1)(b) of the Restatement (Second) of Torts, one of the essential requirements for imposition of strict liability is that the product reach the user "without substantial change in the condition in which it is sold."[263] If the product leaves the possession of the manufacturer, then undergoes a change that substantially alters the product, and the change proximately causes the plaintiff's injuries, the manufacturer may not be held liable.[264]

Maryland's appellate courts have had few occasions to comment on the meaning of "substantial change." Recently, the court of special appeals explained that, under section 402A(1)(b), "the focus . . . is on the adjective 'substantial'; not every change made to a product after it leaves the manufacturer suffices to preclude liability."[265] Reviewing some of

256. 303 Md. 581, 495 A.2d 348 (1985).
257. *Id.* at 597, 495 A.2d at 356.
258. *Id.*
259. *Id.* at 598, 495 A.2d at 356.
260. *Id.* at 598-600, 495 A.2d at 357.
261. *Id.*
262. *See* Mulherin v. Ingersoll-Rand Co., 628 P.2d 1301, 1303-04 (Utah 1981).
263. RESTATEMENT (SECOND) OF TORTS § 402A(1)(b) (1965).
264. Where the subsequent alteration leading to the accident was forseeable by the seller, the seller may be held liable. *See* Webb v. Rodgers Mach. Mfg. Co., 750 F.2d 368, 372 (5th Cir. 1985).
265. Banks v. Iron Hustler Corp., 59 Md. App. 408, 432, 475 A.2d 1243, 1255 (1984).

the case law in this area, the court observed: "Some courts stress the foreseeability of the alteration; others speak simply to whether the change made an otherwise safe product unsafe; and others, borrowing from the law of negligence, view the matter as whether the alteration constituted a supervening cause."[266] Regardless of which approach is used, the court noted that "the substantiality of the change is a question of fact, and if there is any conflict in the evidence, it is for the jury to determine."[267]

A good example of the alteration of product defense at work is found in *Seeborg v. General Motors Corp.* In *Seeborg*, a fire destroyed a new vehicle after the vehicle's owner replaced a fuse on the vehicle with one that was "stronger" and "heavier" than the original.[268] The owner made the change despite a warning in the owner's manual against using fuses with an amperage higher than specified.[269] The court held that because the plaintiff had misused the product there would be no liability against the manufacturer.[270]

It is likely that foreseeability issues will arise in alteration cases. In some jurisdictions, the alteration of product defense is inapplicable if the particular alteration was "reasonably foreseeable."[271] The application of such a reasonableness standard is not appropriate in a strict liability case, however, because it introduces the concept of negligence into a doctrine premised on liability without fault. Maryland has not determined whether a court should consider the foreseeability of an alteration in a strict liability case.

D. Comparative Fault

Comparative fault, also known as comparative negligence, delegates responsibility to each person based upon that person's degree of fault in causing injury to another person.[272] Several years ago, Maryland rejected an opportunity to adopt comparative fault judicially,[273] and the legislature has not enacted a comparative fault statute. The argument in favor of adopting comparative fault, and the decision as to which of the various comparative fault schemes Maryland should adopt, has been dis-

---

266. *Id.*
267. *Id.* at 433-34, 475 A.2d at 1255. In *Banks*, the purchaser of a conveyor belt modified its design. The court held that whether the modification in question was a substantial change was a question for the fact finder. *Id.*
268. Seeborg v. General Motors Corp., 284 Or. 695, 697, 588 P.2d 1100, 1101-02 (1978).
269. *Id.* at 698, 588 P.2d at 1102.
270. *Id.* at 704, 588 P.2d at 1104-05.
271. Webb v. Rodgers Mach. Mfg. Co., 750 F.2d 368, 372 (5th Cir. 1985); Merriweather v. E. W. Bliss Co., 636 F.2d 42, 44-45 (3d Cir. 1980); Craven v. Niagara Mach. and Tool Works, 417 N.E.2d 1165, 1170-71 (Ind. App. 1981).
272. For a thorough discussion of comparative fault and its wide acceptance in the United States, see V. SCHWARTZ, COMPARATIVE NEGLIGENCE (2d ed. 1984).
273. Harrison v. Montgomery County Bd. of Educ., 295 Md. 442, 460-63, 456 A.2d 894, 904-05 (1983).

cussed elsewhere.[274] Nevertheless, one aspect of that decision deserves mention here.

Application of comparative negligence principles to strict liability creates a doctrinal problem because the comparative fault approach in a strict product liability context would require that the product liability action be characterized as some type of negligence so that fault could be assessed.[275] Some courts have overcome this problem by characterizing strict liability in tort as the equivalent of negligence *per se*,[276] but others have refused to do so.[277] The doctrinal problem could be resolved easily by a statute which recognizes that comparative fault actually focuses on causation, not fault. Notwithstanding, comparative fault is more a fair allocation of resources than a defense because it recognizes that parties at fault should share the cost of damages in proportion to their contribution.

V. EMERGING DEFENSES

A pair of closely related defenses are emerging from cases involving claims of failure to warn. Known as the "sophisticated user" defense and the "informed intermediary" defense, these theories provide that one either has no duty to warn or is excused from that duty in certain circumstances. Along with the "state of the art" defense, these two doctrines interject elements of negligence into strict product liability.

A. The Sophisticated User Defense

A manufacturer or supplier has a duty to warn product users of dangers associated with the product only if the manufacturer has reason to anticipate that danger may result from a particular use.[278] Where the

274. Digges, Jr. and Klein, *Comparative Fault in Maryland: The Time Has Come*, 41 MD. L. REV. 276 (1982).

275. *See* RESTATEMENT (SECOND) OF TORTS § 402A comment n (1965) (the premise of strict product liability is that liability does not depend upon the negligence of the seller, but upon the condition of the product). *See also* Phipps v. General Motors Corp., 278 Md. 337, 344, 363 A.2d 955, 958 (1976).

276. The Supreme Court of Wisconsin adopted this approach in Dippel v. Sciano, 37 Wis. 2d 443, 155 N.W.2d 55 (1967). The court explained that:

> if this same liability were imposed for violation of a statute, it is difficult to perceive why we could not consider it negligence *per se* for the purpose of applying the comparative negligence statute just as we have done so many times in other cases involving the so-called "safety statutes."

Id. at 461-62, 155 N.W.2d at 64-65. Under this rationale, the court avoided the doctrinal problem through an attempt to compare the contributory negligence of the user of a product with the defendant's strict liability. Other courts have adopted the *Dippel* approach. *See* West v. Caterpillar, 336 So. 2d 80 (Fla. 1976); Busch v. Busch Constr., Inc., 262 N.W.2d 377 (Minn. 1977).

277. The Supreme Court of Nevada has refused to apply comparative fault as a defense to a strict liability action. *See* Young's Mach. Co. v. Long, 692 P.2d 24 (Nev. 1984) (state's comparative negligence statute does not extend to a strict liability action; such an extension must be made by the legislature).

278. RESTATEMENT (SECOND) OF TORTS § 402 comment h (1965).

manufacturer is aware that the danger posed by a particular product is clearly known to the purchaser-employer, then the manufacturer has no duty to warn the purchaser-employer or its employees.[279] Rather, it is the responsibility of the purchaser-employer to protect employees against the particular danger either through adequate warnings or other precautions.[280] In a negligent failure to warn claim, the United States District Court for the Western District of Virginia noted: "[W]hen the supplier has reason to believe that the purchaser of the product will recognize the dangers associated with the product, no warnings are mandated."[281]

The sophisticated user defense is based on two premises: (1) purchasers knowledgeable in a specific area know the risks associated with a certain product; and (2) the employer is better able to warn employees of the dangers than is the manufacturer.[282] In the three-party setting, where manufacturer, purchaser, and employee are involved, the sophisticated user defense is closely analagous to the doctrine of superseding-intervening cause and to the informed intermediary doctrine.[283] In the two-party setting, where only manufacturer and purchaser are involved, the doctrine is similar to the patent danger rule.[284]

A good example of the successful application of the sophisticated user defense is found in the case of *Goodbar v. Whitehead Brothers*.[285] The plaintiffs in *Goodbar* worked in a foundry where they inhaled free-floating silica dust.[286] They alleged that this exposure resulted in their contracting silicosis. The United States District Court for the Western District of Virginia relied on comment n of Section 388(a) of the Restatement (Second) of Torts[287] in concluding that, under Virginia law and the

279. RESTATEMENT (SECOND) OF TORTS § 388 comment n (1965).

280. *See generally* Comment, *Duty To Warn and the Sophisticated User Defense in Products Liability Cases*, 15 U. BALT. L. REV. 276 (1986). This comment traces the development of the sophisticated user defense from its creation in Littlehale v. E.I. du Pont de Nemours Co., 268 F. Supp. 791 (S.D.N.Y. 1966), through its more recent applications. Particular attention is paid to use of the defense in cases involving asbestos.

281. Goodbar v. Whitehead Bros., 591 F. Supp. 552, 561 (W.D. Va. 1984), *aff'd sub nom.* Beale v. Hardy, 769 F.2d 213 (4th Cir. 1985).

282. *Id.* at 561-62.

283. *See, e.g.*, Stanback v. Parke, Davis & Co., 657 F.2d 642, 644 (4th Cir. 1981); Sterling Drug, Inc. v. Cornish, 370 F.2d 82, 85 (8th Cir. 1966); Fellows v. USV Pharm. Corp., 502 F. Supp. 297, 299 (D. Md. 1980); Chambers v. G.D. Searle & Co., 441 F. Supp. 377, 381 (D. Md. 1975), *aff'd*, 567 F.2d 269 (4th Cir. 1977).

284. *See* Banks v. Iron Hustler Corp., 59 Md. App. 408, 475 A.2d 1243 (1984).

285. 591 F. Supp. 552 (W.D. Va. 1984), *aff'd*, 769 F.2d 213 (4th Cir. 1985).

286. *Goodbar*, 591 F. Supp. at 555.

287. Section 388 provides:

> One who supplies directly or through a third person a chattel for another to use is subject to liability to those whom the supplier should expect to use the chattel with the consent of the other or to be endangered by its probable use, for physical harm caused by the use of the chattel in the manner for which and by a person for whose use it is supplied, if the supplier:
>
> (a) knows or has reason to know that the chattel is or is likely to be dangerous for the use for which it is supplied;

Restatement, "there is no duty on product suppliers to warn employees of knowledgeable industrial purchasers as to product-related hazards."[288]

Goodbar was decided on the basis of negligent failure to warn as opposed to strict liability failure to warn. In interpreting Maryland law, however, the United States Court of Appeals for the Fourth Circuit has indicated that there is no meaningful distinction between a failure to warn claim based on negligence and a failure to warn claim based on strict liability in tort.[289] A claim based on either theory still focuses on

---

(b) has no reason to believe that those for whose use the chattel is supplied will realize its dangerous condition, and
(c) fails to exercise reasonable care to inform them of its dangerous condition or of the facts which make it likely to be dangerous.

RESTATEMENT (SECOND) OF TORTS § 388 (1965). The present text of § 388 remains unchanged from the original draft, which the Court of Appeals of Maryland adopted in Kaplan v. Stein, 198 Md. 414, 420, 84 A.2d 81, 84 (1951).

288. *Goodbar*, 591 F. Supp. at 559. The court outlines application of the defense:

> [A] sand supplier to a large, knowledgeable foundry like the Lynchburg Foundry has no duty to warn the Foundry employees about the occupational disease of silicosis and its causes when only the Foundry is in the position to communicate effective warning and accordingly should be the one to shoulder any burden of effective warning. The difficulties that the sand suppliers face in attempting to warn the Foundry's employees of the hazards inherent in the use of sand in a foundry setting are numerous. These include:
>
> (1) the identification of the users or those exposed to its products would require a constant monitoring by the suppliers in view of the constant turnover of the Foundry's large work force;
> (2) the manner in which the sand products are delivered in bulk (*i.e.* unpackaged railroad car lots or truck);
> (3) no written product warnings placed on the railroad cars would ever reach the workers involved in casting or those in the immediate vicinity due to the way the loose sand is unloaded, conveyed, and kept in storage bins until needed;
> (4) only the Foundry itself would be in the position to provide the good housekeeping measures, training and warnings to its workers on a continuous and systematic basis necessary to reduce the risk of silicosis;
> (5) the sand suppliers must rely on the Foundry to convey any safety information to its employees;
> (6) the confusion arising when twelve different suppliers and the Foundry each try to cope with the awesome task of instructing the Foundry workers; and
> (7) in a commercial setting, it would be totally unrealistic to assume that the suppliers would be able to exert pressure on a large, industrial customer such as the Foundry to allow the suppliers to come in and educate its workers about the hazards of silicosis.

Id. at 566. *See also* Reed v. Pennwalt Corp., 22 Wash. App. 718, 591 P.2d 478 (1979); Schwartz & Driver, *Warnings in the Work Place: The Need for A Synthesis of Law and Communication Theory*, 52 U. CIN. L. REV. 38 (1983).

289. In Werner v. Upjohn Co., 628 F.2d 848 (4th Cir. 1980), the court, applying Maryland law, observed in the failure to warn context the close similarity between negligence and strict liability:

> The elements of both are the same with the exception that in negligence plaintiff must show a breach of a duty of due care by defendant while in

the adequacy of the warning.[290] Thus, although the Court of Appeals of Maryland has not stated that there is no difference between the duty to warn under strict liability or negligence, Fourth Circuit opinions suggest that this is the position the court of appeals would take given an opportunity.

B. The "Informed Intermediary" Defense

As with the sophisticated user defense, the informed intermediary doctrine requires that one discharge his duty to warn by advising a third party. Under the informed intermediary defense, a manufacturer has no duty to warn patient-consumers about the dangers of prescription drugs; that duty lies with the prescribing physician. One commentator enumerated the reasons for this exception:

> (1) The doctor is intended to be an intervening party in the full sense of the word. Medical ethics as well as medical practice dictate independent judgment, unaffected by the manufacturer's control, on the part of the doctor. (2) Were the patient to be given the complete and highly technical information on the adverse possibility associated with the use of the drug, he would have no way to evaluate it, and in his limited understanding he might actually object to the use of the drug, thereby jeopardizing his life. (3) It would be virtually impossible for a manufacturer to comply with the duty of direct warning, as there is no sure way to reach the patient.[291]

No Maryland appellate court to date has recognized the defense, yet the defense has been applied and discussed by the United States District Court for the District of Maryland, applying Maryland law, in *Fellows v. USV Pharmaceutical Corp.*[292] In *Fellows*, the court stated that "[i]n the

---

> strict liability plaintiff must show the product was unreasonably dangerous. The distinction between the two lessens considerably in failure to warn cases since it is clear that strict liability adds little in warning cases. Under a negligence theory the issue is whether the defendant exercised due care in formulating and updating the warning, while under a strict liability theory the issue is whether the lack of a proper warning made the product unreasonably dangerous. Though phrased differently the issue under either theory is essentially the same: was the warning adequate?

Id. at 858.

290. *Id.* It may be, however, that under Maryland law the requirements of duty to warn are the same in negligence and strict liability only when the defective product is a drug. *See* Chambers v. G.D. Searle & Co., 441 F. Supp. 377, 381 (D. Md. 1975), *aff'd* 567 F.2d 269 (4th Cir. 1977) ("[W]hile there may be a distinction between a negligent failure to warn and the warning requirements for strict liability insofar as other products are concerned, comment k [of section 402A] itself indicates that where new drugs, sold under the prescription of a physician, are involved, the standards are essentially the same.").

291. Rheingold, *Products Liability — The Ethical Drug Manufacturer's Liability*, 18 RUTGERS L. REV. 947, 987 (1964) (citations omitted).

292. 502 F. Supp. 297 (D. Md. 1980).

area of prescription drugs, as distinguished from those sold directly to the consumer, it is well established that the manufacturer's duty to warn is limited to advising the prescribing or treating physician of the drug's potential dangers."[293] Thus, although Maryland courts have yet to address the informed intermediary defense, it appears that the court of appeals would adopt the rule under appropriate circumstances.

C. *State of the Art*

Evidence of "state of the art" is actual demonstration of the level of scientific or technological knowledge at the time that a particular product was manufactured.[294] What an industry knew and could do at a particular time is evidence of state of the art. What a particular industry did at a certain time, however, is evidence of state of the industry.[295] Although the two may concur, they are distinct considerations.[296]

In either a design defect or a failure to warn case, evidence of state of the art is directly probative of the issue of whether a particular design presents an "inherently unreasonable" risk.[297] In *McLaughlin v. Sikorsky Aircraft*,[298] state of the art evidence was admitted in order to establish that the benefits of the challenged design outweighed the risk inherent in such design.[299] In *McLaughlin*, the Court of Appeals of California noted, "[a]mong the relevant factors, and peculiarly within the manufacturer's knowledge, are the feasibility and the cost of alternative designs."[300] The court distinguished between an industry's capabilities and an industry's custom and found "evidence of industry custom and usage [to be] irrelevant in a products liability case."[301]

---

293. Fellows v. USV Pharm. Corp., 502 F. Supp. 297, 299 (D. Md. 1980).
294. *See generally*, Robb, *A Practical Approach to Use of State of the Art Evidence in Strict Product Liability Cases*, 77 NW. U. L. REV. 1, 3-5 (1982); O'Donnell, *Design Litigation and the State of the Art: Terminology, Practice and Reform*, 11 AKRON L. REV. 627 (1978).
295. Most jurisdictions employ the term "state of the art" to refer to that which is technologically or practically feasible. *See* Wiska v. St. Stanislaus Social Club, Inc., 390 N.E.2d 1133, 1138 n.8 (Mass. App. 1979) (techologically feasible); McLaughlin v. Sikorsky Aircraft, 148 Cal. App. 3d 203, 195 Cal. Rptr. 764 (Cal. Dist. Ct. App. 1983) (both technologically and practically feasible).
296. Some courts have employed the term "state of the art" to mean the custom of a particular industry. Suter v. San Angelo Foundry & Mach. Co., 81 N.J. 150, 172, 406 A.2d 140, 151 (1979); Olson v. A.W. Chesterson Co., 256 N.W.2d 530, 540 (N.D. 1977). For a discussion of "state of the art" and "state of the industry" see *Chown v. USM Corp.*, 297 N.W.2d 218, 221 (Iowa 1980).
297. The evidence derives its relevance either from an allegation that the product is unreasonably dangerous and no alternative design was safer and practicable or, that the product was unreasonably dangerous because there was a safer, practicable design available, and that design's benefits outweighed any additional costs. The relevance of the evidence under either theory is illustrated in United States v. Carroll Towing Co., 159 F.2d 169, 173 (2d Cir. 1947).
298. 148 Cal. App. 3d 203, 195 Cal. Rptr. 764.
299. *Id.*
300. *Id.* at 209-10, 195 Cal. Rptr. at 767.
301. *Id.*

Although the Court of Appeals of Maryland has not yet addressed the issue of admissibility of evidence of state of the art, the arguments against admissibility will probably focus on the fact that strict liability does not involve the issue of care. Manufacturers probably will respond that state of the art evidence is relevant in determining whether the product is defective or unreasonably dangerous.[302]

VI. CONCLUSION

Law evolves as the legislative and judicial branches of government adopt new attitudes toward legal issues. In the field of product liability, it was originally difficult to hold manufacturers liable for injury caused by their products, even when those products proved to be defective by many recognized standards. The adoption of the doctrine of strict liability accelerated the swing of the pendulum away from a kind of immunity from liability for manufacturers. The doctrine was adopted as a matter of public policy; it aimed at placing the cost of injury, at least in the first instance, on the parties responsible for placing the defective product into the stream of commerce. Evolution has expanded the doctrine to include essentially all parties associated with a product's marketing cycle.

Notwithstanding the continuing development of strict liability, courts and legislatures also have expanded manufacturer liability through the development of new theories. The controversial "Saturday Night Special" opinion is a good example of this phenomenon. Similarly, alternative liability, concert of action, enterprise liability, and market share liability allow responsibility for liability to be assessed against manufacturers that are only remotely and indirectly responsible for the injury in question.

The development of these new theories of liability undoubtedly reflects a compassionate concern by the courts for the fate of injured parties. However, this steady expansion of manufacturer liability also places an increasing economic burden on society because risk spreading ultimately will reside with consumers and society in general. Several new defenses have arisen attempting to offset the new theories of liability, but the net effect of the changes in product liability law in the past decade has been to shift a disturbing amount of responsibility onto product manufacturers. Thus, it is an appropriate time to reverse the trend toward increased manufacturer liability.

302. There is little doubt that state of the art evidence is admissible in negligence cases because negligence focuses on a manufacturer's conduct and compares that conduct to what a reasonable manufacturer in similar circumstances would have done.