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The Knowledge Element of Assumption of Risk as a Defense to Strict Products Liability, 10 J. Marshall J. of Prac. & Proc. 243 (1977)

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COMMENTS

THE KNOWLEDGE ELEMENT OF ASSUMPTION OF RISK AS A DEFENSE TO STRICT PRODUCTS LIABILITY

INTRODUCTION

Prosser dubbed knowledge as the "watchword" of the traditional assumption of risk defense.[1] The related affirmative defense in products liability, for which this author has arbitrarily chosen the name of assumption of risk, is really an amalgam of the traditional concepts of contributory negligence and assumption of risk.[2] The Restatement view[3] of the defense, which is now accepted by a majority of the courts,[4] is based on the negli-

1. W. PROSSER, THE LAW OF TORTS 447 (4th ed. 1971).

2. Ferraro v. Ford Motor Co., 423 Pa. 324, 327, 223 A.2d 746, 748 (1966) (using both names); Ellithorpe v. Ford Motor Co., 503 S.W.2d 516, 521 (Tenn. 1973) (using both names and stating that it makes no difference which one is used); RESTATEMENT (SECOND) OF TORTS § 402A, comment n (1965) (using both names to define the defense); Prosser, *Strict Liability to the Consumer in California*, 18 HASTINGS L.J. 9, 48-50 (1966); Twerski, *Old Wine in a New Flask—Restructuring Assumption of Risk in the Products Liability Era*, 60 IOWA L. REV. 1, 3 (1974) [hereinafter cited as Twerski]; Wade, *Strict Tort Liability of Manufacturers*, 19 SW. L.J. 5, 21-22 (1965); *see* Prosser, *The Fall of the Citadel*, 50 MINN. L. REV. 791, 838-39 (1966).

3. The *Restatement* gives the following definition of the defense:

> Contributory negligence of the plaintiff is not a defense when such negligence consists merely in a failure to discover the defect in the product, or to guard against the possibility of its existence. On the other hand *the 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 . . . . 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.*

RESTATEMENT (SECOND) OF TORTS § 402A, comment n (1965) (emphasis added). The traditional defense of assumption of risk had only two elements—subjective knowledge and voluntary encounter. Comment n adds the third additional element of unreasonable encounter. Johnson v. Clark Equip. Co., 274 Or. 403, —, 547 P.2d 132, 138 (1976).

4. *E.g.*, Bachner v. Pearson, 479 P.2d 319, 329-30 (Alas. 1970); O.S. Stapley Co. v. Miller, 103 Ariz. 556, 561, 447 P.2d 248, 253 (1968); Luque v. McLean, 8 Cal. 3d 136, 145-46, 501 P.2d 1163, 1170, 104 Cal. Rptr. 443, 450 (1972); Hiigel v. General Motors Corp., 544 P.2d 983, 988 (Colo. 1975); Shields v. Morton Chem. Co., 95 Idaho 674, 677, 518 P.2d 857, 860 (1974); Williams v. Brown Mfg. Co., 45 Ill. 2d 418, 426, 261 N.E.2d 305, 309-10 (1970); Gregory v. White Truck & Equip. Co., 323 N.E.2d 280, 290 (Ind. 1975); Hawkeye Security Ins. Co. v. Ford Motor Co., 199 N.W.2d 373, 380 (Iowa 1972); Brooks v. Dietz, 218 Kan. 698, 704-05, 545 P.2d 1104, 1110 (1976); Keener v. Dayton Elec. Mfg. Co., 445 S.W.2d 362, 365 (Mo. 1969); Hawkins Constr. Co. v. Matthews Co., 190 Neb. 546, 567, 209 N.W.2d 643, 655 (1973); Bendorf v. Volkswagenwerk Aktiengeselischaft, 88 N.M. 355, 358, 540 P.2d 835, 838 (1975); Kirkland v. General Motors Corp., 521 P.2d 1353 (Okla. 1974); Findlay v. Copeland Lumber Co., 265 Or. 300, 303-04, 509 P.2d 28, 30 (1973); Ferraro v. Ford Motor Co., 423

gent conduct of the plaintiff in encountering a known risk. The defense on its face does not cover the entire spectrum of contributory negligence. While it is clear that the negligent conduct must be based on an assumption of a known risk, it is also clear that the plaintiff must do more than merely assume an appreciated risk; the risk must be unreasonably assumed. The defense is then clearly a hybrid of the traditional concepts of contributory negligence and assumption of risk. The defense of assumption of risk in strict products liability exists exclusively in the overlap of these two defenses.[5] The selection of knowledge, however, as the key element of assumption of risk in products liability is still appropriate. The aspect of knowledge has been the focus of many of the numerous opinions dealing with the defense of assumption of risk in products liability.[6] Despite the frequent litigation, the element of knowledge is in need of further clarification.

How much must the plaintiff know before assumption of risk

Pa. 324, 327, 223 A.2d 746, 748 (1966); Ellithorpe v. Ford Motor Co., 503 S.W.2d 516, 521 (Tenn. 1973); Seattle-First Nat'l Bank v. Tabert, 86 Wash. 2d 145, 155, 542 P.2d 774, 779 (1975).

At least three states hold, however, that the traditional concept of contributory negligence is a defense to a strict products liability action. Stephan v. Sears, Roebuck & Co., 110 N.H. 248, 249, 266 A.2d 855, 857 (1970) ("failure to discover or foresee dangers which the ordinary person would have discovered or foreseen as well as negligent conduct after discovery of the danger and in the use of the product will constitute a defense to an action based on strict liability"); Codling v. Paglia, 32 N.Y.2d 330, 342, 298 N.E.2d 622, 628, 345 N.Y.S.2d 461, 470 (1973) (holding that plaintiff user must prove that in the exercise of reasonable care he would not have discovered defect and perceived its danger); Dippel v. Sciano, 37 Wis. 2d 443, 460-62, 155 N.W.2d 55, 63-65 (1967) (holding that defense of contributory negligence is available and is subject to the state's comparative negligence statute).

The position of Texas is that the traditional concept of assumption of risk is a defense to strict products liability, and although the plaintiff's conduct must be voluntary, it does not necessarily mean that reasonableness is always an element of the defense. Henderson v. Ford Motor Co., 519 S.W.2d 87 (Tex. 1974). The Supreme Court of Texas, however, in almost the same breath made this caveat:

> No decision has been made by this Court to rule the case where the defendant manufacturer should have anticipated that the dangerous design would cause physical harm to one in the course of use similar to that which caused plaintiff's injury and notwithstanding the plaintiff user's knowledge of the danger.

Id. at 91.

New Jersey holds that "contributory negligence in its broad sense is sufficiently comprehensive to encompass all the variant notions expressed . . . as a basis for refusing plaintiff a recovery" and is a defense to strict products liability. Maiorino v. Weco Prods. Co., 45 N.J. 570, 574, 214 A.2d 18, 20 (1965). However, in its operation, the type of plaintiff conduct held to bar recovery would be classified as misuse or assumption of risk. *See* Williams v. Brown Mfg. Co., 45 Ill. 2d 418, 426-27, 261 N.E.2d 305, 310 (1970); Noel, *Products Liability: Bystanders, Contributory Fault and Unusual Uses*, 50 F.R.D. 321, 328-29 (1971). The defense is not allowed in New Jersey when considerations of policy and justice dictate. Bexiga v. Havir Mfg. Corp., 60 N.J. 402, 290 A.2d 281 (1972).

5. *See* W. PROSSER, THE LAW OF TORTS 669 (4th ed. 1971).

6. *See* Annot., 46 A.L.R.3d 240 (1972).

can operate to prevent shifting the loss to the manufacturer?[7] In the traditional defense of assumption of risk, the courts have required that there be full appreciation of the risk.[8] This standard does not provide any useful analytical tool to use in determining the issue, and its flexibility invites litigation. In strict products liability, the courts have often required that there be knowledge of the specific defect in the product for the defense to be applicable.[9] This standard also fails to provide any guide for thoughtful analysis of the issue, and, if taken too literally, is clearly misleading.

This article will hopefully provide a tool for analyzing the issue of knowledge, as well as a more meaningful standard as to what degree of knowledge is required. Initially, the issue can be analyzed by breaking the risk allegedly assumed into its factors—the gravity of the harm and the probability of its occurrence. If the plaintiff does not have a substantial awareness of either one of these factors, he cannot be said to have knowledge of the risk. Although useful, such analysis leaves the ultimate question of degree unanswered. In answering this question, it is herein suggested that the appropriate standard to use is whether the plaintiff possessed such knowledge of the danger presented by the defective product that would cause a reasonable man to provide for his own safety by taking precautions commensurate with the danger. This standard is also a flexible one, but it does provide a helpful guide in determining what degree of knowledge is necessary for an assumption of risk in a way that more consistently effectuates the policy considerations behind strict products liability.

PUBLIC POLICY CONSIDERATIONS

Considerations Supporting Manufacturers' Liability

The doctrine of strict liability in products liability is deeply rooted in public policy considerations. In the landmark decision

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7. Although the defendant in a products liability case may be a retailer, assembler, or anyone else who places the product into the stream of commerce, 72 C.J.S. *Products Liability* § 40-43 (Supp. 1975), the term manufacturer is used in this article to refer to the defendant in a products liability suit generally.

8. Keeton, *Assumption of Risk in Products Liability Cases*, 22 LA. L. REV. 122, 141 (1961); Twerski, *supra* note 2, at 41.

9. McGrath v. Wallace Murray Corp., 496 F.2d 299, 302 (10th Cir. 1974) (specific defect); Hales v. Green Colonial, Inc., 490 F.2d 1015, 1021 (8th Cir. 1974) (specific defect); Sweeney v. Max A.R. Matthews & Co., 46 Ill. 2d 64, 66, 264 N.E.2d 170, 171 (1970) (dangerous condition); Berkebile v. Brantly Helicopter Corp., 337 A.2d 893, 901 (Pa. 1975) (specific defect); Haugen v. Minnesota Mining & Mfg. Co., 15 Wash. App. 379, —, 550 P.2d 71, 75 (1976) (specific defect); *see* RESTATEMENT (SECOND) OF TORTS § 402A, comment n (1965).

of *Greenman v. Yuba Power Products, Inc.*,[10] Justice Traynor stated that the purpose underlying strict products liability "is to insure that the costs of injuries resulting from defective products are borne by the manufacturers that put such products on the market rather than by the injured persons who are powerless to protect themselves."[11]

There are a number of reasons which support a policy of insuring that manufacturers bear the burden of the costs of injury from their defective products. First and foremost, it is the manufacturer of the defective product who is primarily responsible for the injury occurring.[12] With his greater expertise and technical competency, the manufacturer is in the better position to guard against the hazards arising from his products and to prevent unsafe products from ever reaching the public.[13] The exposure to liability, therefore, promotes the public interest in consumer safety by providing an effective deterrent to the marketing of dangerous products.[14] The manufacturer is also in a better position to bear the burden of injury financially; liability insurance can be obtained and added to the price of the goods.[15] It makes good sense that the inevitable harm

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10. 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963).

11. *Id.* at 63, 377 P.2d at 901, 27 Cal. Rptr. at 701.

12. Lechuga, Inc. v. Montgomery, 12 Ariz. App. 32, —, 467 P.2d 256, 261 (1970) (Jacobson, J., concurring); Stang v. Hertz Corp., 83 N.M. 730, 734, 497 P.2d 732, 736 (1972).

13. Escola v. Coca Cola Bottling Co., 24 Cal. 2d 453, 462, 150 P.2d 436, 440-41 (1944) (Traynor, J., concurring); Peterson v. Lou Bachrodt Chevrolet Co., 17 Ill. App. 3d 690, 694, 307 N.E.2d 729, 732 (1974), *rev'd on other grounds*, 61 Ill. 2d 17, 329 N.E.2d 785 (1975); Cintrone v. Hertz Truck Leasing & Rental Service, 45 N.J. 434, 446, 212 A.2d 769, 775 (1965); *see* Henningsen v. Bloomfield Motors, Inc., 32 N.J. 358, 379, 384, 161 A.2d 69, 81, 83 (1960); RESTATEMENT (SECOND) OF TORTS § 402A, comment c (1965).

14. Vandermark v. Ford Motor Co., 61 Cal. 2d 256, 262-63, 391 P.2d 168, 171, 37 Cal. Rptr. 896, 899-900 (1964); Escola v. Coca Cola Bottling Co., 24 Cal. 2d 453, 462, 150 P.2d 436, 441 (1944) (Traynor, J., concurring); Peterson v. Lou Bachrodt Chevrolet Co., 61 Ill. 2d 17, 20, 329 N.E.2d 785, 786 (1975); Dunham v. Vaughan & Bushnell Mfg. Co., 42 Ill. 2d 339, 344, 247 N.E.2d 401, 404 (1969).

15. Brown v. General Motors Corp., 355 F.2d 814, 821 (4th Cir. 1966), *cert. denied*, 386 U.S. 1036 (1967); Escola v. Coca Cola Bottling Co., 24 Cal. 2d 453, 462, 150 P.2d 436, 441 (1944) (Traynor, J., concurring); Henningsen v. Bloomfield Motors, Inc., 32 N.J. 358, 379, 161 A.2d 69, 81 (1960); RESTATEMENT (SECOND) OF TORTS § 402A, comment c (1965); *see* Noel, *Products Liability: Bystanders, Contributory Fault and Unusual Uses*, 50 F.R.D. 321, 326-27 (1971); *But see* Hollinger v. Shoppers Paradise, Inc., 134 N.J. Super. 328, 345, 340 A.2d 687, 696 (1975), where the court states that:

> Such a rationale is arbitrary in that it fails to account for the specific characteristics of the product in question and the relationship between the particular consumer and seller from which the action for strict liability arises. For this reason the 'loss spreading' theory has been given relatively little weight when compared to other policy considerations; 'it plays "only the part of a make weight argument"
> . . . .'

The imposition of liability on the basis of the "loss spreading" theory is one of economic policy. Brown v. General Motors Corp., 355 F.2d 814,

brought about by a system of mass production and complex marketing channels should be borne by the profits of that system[16] and more specifically by the profits made on the defective product that causes the injury.[17] Finally, it is just to impose liability upon the manufacturer of a defective product because of the special responsibility he has assumed toward the public as a result of the implied promise of safety he makes by putting his product on the market—a promise the public is forced to rely upon.[18]

With these considerations in mind it is clear why contributory negligence, which does not rise to the level of an assumption of risk, is not a defense.[19] To hold that the whole concept of contributory negligence is a defense to strict products liability would allow the manufacturer in designing and producing his products to ignore the possibility of consumer negligence. Product safety, however, requires that the negligent conduct of consumers be anticipated and planned against. Public policy, therefore, demands that the manufacturer take consumer negligence into account.[20]

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821 (4th Cir. 1966), *cert. denied*, 386 U.S. 1036 (1967). As one exposed to the basic principles of economics well knows, the allocation of resources is most effectively made in a pure competition model where each good is made to bear all of its costs.

16. Hawkeye Security Ins. Co. v. Ford Motor Co., 199 N.W.2d 373, 382 (Iowa 1972); Farr v. Armstrong Rubber Co., 288 Minn. 83, 94, 179 N.W.2d 64, 71 (1970).

17. Suvada v. White Motor Co., 32 Ill. 2d 612, 619, 210 N.E.2d 182, 186 (1965) ("the justice of imposing the loss on the one creating the risk and reaping the profit").

18. Greenman v. Yuba Power Prods., Inc., 59 Cal. 2d 57, 64, 377 P.2d 897, 901, 27 Cal. Rptr. 697, 701 (1963); Santor v. A & M Karagheusian, Inc., 44 N.J. 52, 64-65, 207 A.2d 305, 311 (1965); Henningsen v. Bloomfield Motors, Inc., 32 N.J. 358, 384, 161 A.2d 69, 83 (1960); RESTATEMENT (SECOND) OF TORTS § 402A, comment c (1965), which reads as follows:

> c. On whatever theory, the justification for the strict liability has been said to be that the seller, by marketing his product for use and consumption, has undertaken and assumed a special responsibility toward any member of the consuming public who may be injured by it; that the public has the right to and does expect, in the case of products which it needs and for which it is forced to rely upon the seller, that reputable sellers will stand behind their goods; that public policy demands that the burden of accidental injuries caused by products intended for consumption be placed upon those who market them, and be treated as a cost of production against which liability insurance can be obtained; and that the consumer of such products is entitled to the maximum protection at the hands of someone, and the proper persons to afford it are those who market the products.

19. Bachner v. Pearson, 479 P.2d 319, 329 (Alas. 1970) (plaintiff's negligent conduct concurring with the defect to cause injury is immaterial in light of the initial policies calling for strict liability); Ellithorpe v. Ford Motor Co., 503 S.W.2d 516, 521 (Tenn. 1973) (to hold that ordinary contributory negligence in failing to discover the defect or guard against the possibility of its occurrence is a defense which would defeat the purposes for which the theory of strict products liability was created).

20. When a plaintiff's conduct is unforeseeable, the element of proximate cause and the defense of misuse relieve the manufacturer from lia-

Considerations Supporting the Defense to Liability

The public policy embodied in strict products liability is not undermined, however, by sanctioning a defense against a plaintiff who is aware of the defective and dangerous condition, yet freely and unreasonably makes use of the product. In such circumstances it is the plaintiff who is in the better position to see to it that a safe course of action is taken.[21] The resulting injury can not be considered as one of the inevitable harms of mass production which should be considered as part of the cost of the product, and the obligation of the manufacturer to furnish a safe product has been extinguished by the consumer's consent to expose himself to the risk. Furthermore, there is the pervasive policy in the law of preventing plaintiffs from passively allowing personal losses and a defendant's liability to mount.[22] The doctrine of avoidable consequences in tort law and mitigation of damages in contract law are two examples.[23] These doctrines require the plaintiff to make a reasonable effort to avoid loss. Similarly, the assumption of risk defense in products liability requires that a plaintiff, who is aware of the risk created by a defective product, act reasonably in encountering the danger, if he is to expect the burden of any loss engendered by the defective product to be shifted to the manufacturer.

The reasoning behind barring plaintiffs from recovery only where they encounter the risk unreasonably is based on the principle that a plaintiff's right to choice and freedom of action should not be impaired by a defendant's wrong. The plaintiff, therefore, should be allowed to protect his choice and freedom of action even though he reasonably assumes the risks presented by a defendant's defective product.[24] Where the plaintiff assumes a risk which is clearly out of proportion with the right protected, such that a reasonable man would not assume the risk to protect the right, then the plaintiff is properly barred from recovery.[25] Thus where the consumer is confronted with a product he knows to be defective, he will not be barred from recovery unless he encountered the danger presented by the

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bility. 72 C.J.S. *Products Liability* §§ 30, 31, 47 (Supp. 1975); *see* Epstein, *Products Liability: Defenses Based on Plaintiff's Conduct*, 1968 UTAH L. REV. 267, 272-73 [hereinafter cited as Epstein].

21. *See* Hollinger v. Shoppers Paradise, Inc., 134 N.J. Super. 328, 343-45, 340 A.2d 687, 695-96 (1975); Calabresi & Hirschoff, *Toward a Test for Strict Liability in Torts*, 81 YALE L.J. 1055, 1062-63 (1972).

22. *See* Epstein, *supra* note 20, at 273.

23. RESTATEMENT OF CONTRACTS § 336 (1932); RESTATEMENT OF TORTS § 918 (1939).

24. *See* Keeton, *Assumption of Risk in Products Liability Cases*, 22 LA. L. REV. 122, 156-57 (1961); Keeton, *Assumption of Products Risks*, 19 SW. L.J. 61, 71-72, 75 (1965); Twerski, *supra* note 2, at 4-10.

25. Twerski, *supra* note 2, at 5 n.25.

defective product unreasonably.[26] Thus, through the defense of assumption of risk the law seeks to impose on consumers part of the burden of protecting themselves from dangerous products, while still protecting consumers by recognizing their right to reasonably assume risks presented by defective products.

Summary of Policy Considerations

The ultimate goal of strict products liability is the protection of the public from unreasonably dangerous products. The courts have imposed the primary responsibility for public safety upon the manufacturers who are in a position to provide safe products at the outset and are better equipped technically and financially to bear the responsibility. The defense of assumption of risk is concerned with how much responsibility should be placed upon the consumer to provide for his own protection. The burden of discovering unreasonable danger in a product is placed only upon the manufacturer.[27] The manufacturer has the superior capability to fulfill this function and the consumer has the right to rely on his expertise. Therefore, no responsibility is placed upon the consumer unless he has actual knowledge of the danger created by a defective product. Such knowledge, however, does not make the consumer responsible for creating the danger, and thus he is not absolutely bound to eliminate it; but if he makes a conscious and intelligent choice to expose himself to the danger, the law properly requires that the choice be a reasonable one or that the consumer bear the loss.

PLAINTIFF'S KNOWLEDGE MUST BE SUBJECTIVE

The great weight of authority holds that it is the subjective knowledge of the plaintiff which is relevant rather than what a reasonable man would know about the defective product and the danger it creates.[28] An obvious corollary to the rule that

26. *E.g.*, Ferraro v. Ford Motor Co., 423 Pa. 324, 328, 223 A.2d 746, 748-49 (1966). *See* RESTATEMENT (SECOND) OF TORTS § 473 (1965).

27. The following cases stand for the proposition that plaintiff's negligence in failing to discover the defect is not a defense: Moomey v. Massey Ferguson, Inc., 429 F.2d 1184, 1189 (10th Cir. 1970); McDevitt v. Standard Oil Co., 391 F.2d 364, 369 (5th Cir. 1968); O.S. Stapley Co. v. Miller, 103 Ariz. 556, 561, 447 P.2d 248, 253 (1968); Ruiz v. Minnesota Mining & Mfg. Co., 15 Cal. App. 3d 462, 470, 93 Cal. Rptr. 270, 275 (1971). The following cases stand for the proposition that plaintiff's negligent conduct in failing to guard against the existence of a defect is not a defense: Shields v. Morton Chem. Co., 95 Idaho 674, 677, 518 P.2d 857, 860 (1974); Hawkins Constr. Co. v. Matthews Co., 190 Neb. 546, 567, 209 N.W.2d 643, 655 (1973); Pizza Inn, Inc. v. Tiffany, 454 S.W.2d 420, 423 (Tex. Civ. App. 1970). RESTATEMENT (SECOND) OF TORTS § 402A, comment n supports both of these propositions.

28. *See, e.g.*, Jackson v. Coast Paint & Lacquer Co., 499 F.2d 809, 815 (9th Cir. 1974); Hastings v. Dis Tran Prods., Inc., 389 F. Supp. 1352, 1357 (W.D. La. 1975); Clarke v. Brockway Motor Trucks, 372 F. Supp. 1342,

the plaintiff must have actual knowledge of the defect and the danger it creates is that his knowledge can be neither constructive nor imputed if the defense is to be applicable.[29] A few courts, however, do hold that a plaintiff may assume risks of which he should have been aware in the exercise of ordinary care.[30] To use an objective reasonable man standard to determine the plaintiff's knowledge is tantamount to recognizing contributory negligence in failing to discover the defect as a defense. Without subjective knowledge the plaintiff is unable to provide for his safety and can hardly be thought to consent to relieve the defendant from his obligation to provide a safe product. Thus, to apply an objective standard in determining the plaintiff's knowledge is totally out of place with the policy considerations underlying strict products liability.[31] The objective standard places a greater burden on the consumer to provide for consumer safety and is directly in opposition to the Restatement and majority view of the defense.[32]

Yet it is obvious that some objectivity must be allowed in assessing the plaintiff's subjective knowledge; otherwise, since it is a fact which is often entirely within the plaintiff's knowledge, a jury would be forced to rely solely on the plaintiff's own testimony of his knowledge and appreciation of the risk. It is clear, however, that a juror is not so limited, but may consider other objective evidence, such as the plaintiff's "age, experience, knowl-

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1347-48 (E.D. Pa. 1974); Butaud v. Suburban Marine & Sporting Goods, Inc., 543 P.2d 209, 211 (Alas. 1975); Smith v. Dhy-Dynamic Co., 31 Cal. App. 3d 852, 857, 107 Cal. Rptr. 907, 909 (1973); Williams v. Brown Mfg. Co., 45 Ill. 2d 418, 430, 261 N.E.2d 305, 312 (1970); Bittner v. Wheel Horse Prods., Inc., 28 Ill. App. 3d 44, 52, 328 N.E.2d 160, 166 (1975); Berkebile v. Brantly Helicopter Corp., 337 A.2d 893, 901 (Pa. 1975).

The question is ordinarily one to be determined by the jury. Williams v. Brown Mfg. Co., 45 Ill. 2d 418, 430, 261 N.E.2d 305, 312 (1970). The question, however, need not always go to the jury. Moran v. Raymond Corp., 484 F.2d 1008 (7th Cir. 1973), *cert. denied*, 415 U.S. 932 (1974) (testimony clear that plaintiff knew of the danger); Denton v. Bachtold Bros., 8 Ill. App. 3d 1038, 291 N.E.2d 229 (1972) (directed verdict for defendant affirmed in light of plaintiff's admitted knowledge); Fore v. Vermeer Mfg. Co., 7 Ill. App. 3d 346, 287 N.E.2d 526 (1972) (summary judgment affirmed based on plaintiff's admissions in deposition).

29. Jackson v. Coast Paint & Lacquer Co., 499 F.2d 809, 815 (9th Cir. 1974) (stating that any knowledge plaintiff's employer may have had about the defect is irrelevant unless it was communicated to the plaintiff); Rourke v. Garza, 511 S.W.2d 331, 338 (Tex. Civ. App. 1974), *aff'd*, 530 S.W.2d 794 (Tex. 1975); *see* Lewis v. Stran Steel Corp., 6 Ill. App. 3d 142, 151, 285 N.E.2d 631, 637 (1972), *rev'd on other grounds*, 57 Ill. 2d 94, 311 N.E.2d 128 (1974) (holding that while misuse may be a defense against liability to a bystander, assumption of the risk by the user-consumer is not a defense to the bystander's action).

30. Shuput v. Heublein Inc., 511 F.2d 1104, 1106 (10th Cir. 1975); Gangi v. Sears, Roebuck & Co., 33 Conn. Supp. 81, —, 360 A.2d 907, 909 (Super. Ct. 1976); Fegan v. Lynn Ladder Co., 322 N.E.2d 783, 786 (Mass. App. 1975); Perkins v. Fit-Well Artificial Limb Co., 30 Utah 2d 151, 153, 514 P.2d 811, 812-13 (1973).

31. *See* text accompanying notes 10-20 *supra*.

32. *See* note 4 *supra*.

edge and understanding, as well as, the obviousness of the defect and the danger it poses."[33] Legal commentators have intimated that this introduction of objectivity to the subjective standard leaves the difference between the objective and subjective standard largely theoretical rather than practical,[34] but this is not the case. Although a degree of objectivity is introduced to the inquiry, it is far different from a reasonable man standard which would merely assess what a reasonable plaintiff should have known under the circumstances. The jury must still find that the plaintiff actually did know of the defect, and any circumstantial evidence to that effect must still overcome the plaintiff's testimony, assuming it is contrary.[35] It is, therefore, not at all inconsistent or improbable that a jury may find that a plaintiff should have appreciated the danger and yet actually did not appreciate the danger.[36]

If the defective product is certain to cause serious injury, it may almost conclusively be inferred that the plaintiff was not aware of the danger, even though the danger would have been obvious to the most casual observer.[37] An example of such a case is *Barefield v. La Salle Coca-Cola Bottling Co.*,[38] where a plaintiff saw what she thought was ice in a bottle of Coke, gagged on what she thought was either the ice or tobacco from a cigarette she was smoking, then continued to drink from the bottle which actually contained slivers of glass. The very nature of the defect leads to the all but irrebutable conclusion that she could not have been aware of it. The jury, however, given a set of instructions holding her to an objective standard of knowledge, was able to find that she assumed the risk of the injuries she incurred from ingesting the glass.

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33. Williams v. Brown Mfg. Co., 45 Ill. 2d 418, 430-31, 261 N.E.2d 305, 312 (1970); Johnson v. Clark Equip. Co., 274 Or. 403, —, 547 P.2d 132, 139 (1976); Kinka v. Harley-Davidson Motor Co., 36 Ill. App. 3d 752, 759, 344 N.E.2d 655, 661 (1976); *see* RESTATEMENT (SECOND) OF TORTS § 496D, comment c (1965).

34. Epstein, *supra* note 20, at 272; Comment, *Williams v. Brown Manufacturing Company: Defenses Based on Plaintiff's Conduct in Strict Liability*, 4 J. MAR. J. 95, 104 (1970).

35. *See* Keeton, *Assumption of Products Risks*, 19 SW. L.J. 61, 70-71 (1965); Traynor, *The Ways and Meanings of Defective Products and Strict Liability*, 32 TENN. L. REV. 363 (1965), where Justice Traynor stated: "Were a consumer deemed to assume all commonly known risks, we would come full circle round to the problems generated by the disclaimer of warranty in the implied warranty cases." *Id.* at 371.

36. *See, e.g.*, Callihan Interests, Inc. v. Halepeska, 349 S.W.2d 758 (Tex. Civ. App. 1961), *rev'd* 371 S.W.2d 368 (Tex. 1963).

37. *See* Kassouf v. Lee Bros., 209 Cal. App. 2d 568, 26 Cal. Rptr. 276 (1962); Barefield v. La Salle Coca-Cola Bottling Co., 370 Mich. 1, 120 N.W.2d 786 (1963). Although these are breach of warranty cases, they illustrate the point to be made. Furthermore there is, in the main, little difference in the applicability and use of assumption of risk in these two areas. *Compare* Annot., 4 A.L.R.3d 501 (1965) *with* Annot., 46 A.L.R.3d 240 (1972).

38. 370 Mich. 1, 120 N.W.2d 786 (1963).

Since the jury may often be given instructions to take into consideration objective factors in determining whether the plaintiff knew and appreciated the danger,[39] it is incumbent upon plaintiff's counsel to make it clear to the jury that the defense must prove the higher and more difficult subjective standard. Furthermore, any instruction which intimates that the plaintiff is to be held to an objective standard with words such as "should have appreciated the danger" should certainly be objected to.

How Much Must the Plaintiff Know

If the plaintiff actually possesses some knowledge concerning the danger which he encountered, the question which then becomes important is whether he possessed sufficient knowledge for the defense to operate. The traditional requirement has been that the plaintiff must have had full appreciation of the risk.[40] In strict products liability the courts have frequently required that he must have had specific knowledge of the defect in the product for the defense to be applicable.[41] These statements do not provide a great deal of help in determining the answer to the question and may even be misleading. The first is too flexible; the latter is simply arbitrary. Neither is based on the policy considerations involved in products liability. Thoughtful analysis must begin with the factors constituting risk and the underlying policy considerations involved.

Breaking Risk into Its Factors

Risk is the product of two factors, the nature of the possible harm and the probability of its occurrence.[42] The degree of any risk is directly proportional to both of these factors. Therefore, a plaintiff who lacks substantial knowledge as to either or both of these factors cannot be characterized as fully understanding and appreciating the risk.

Borel v. Fibreboard Paper Products Corp.[43] illustrates the point that a plaintiff who is aware of the probability of injury but not substantially aware of the gravity of the possible harm cannot be barred from recovery on the basis of assumption of

39. *See, e.g.*, Illinois Institute for Continuing Legal Education, Illinois Product Liability Practice § 9.20 (1973) (suggested jury instruction), which states "[i]n determining whether the defense of assumption of the risk of injury from use of the (product) has been proved, you should take into consideration the plaintiff's age, experience, knowledge, and understanding; and the obviousness of such [condition] [or] [conditions] and the danger involved."

40. *See* note 8 *supra.*

41. *See* note 9 *supra.*

42. W. Prosser, The Law of Torts 147 (4th ed. 1971); *see* Restatement (Second) of Torts § 496D, comment b (1965).

43. 493 F.2d 1076 (5th Cir. 1973), *cert. denied*, 415 U.S. 978 (1974).

risk. Borel, an insulation worker, instituted an action against certain manufacturers of insulation materials containing asbestos to recover for injuries caused by their failure to warn of the dangers involved in working with asbestos. He contracted the terminal illness of pulmonary asbestosis from the constant inhalation of asbestos dust at work, and died before the case came to trial. Five years before his condition was diagnosed, Borel's doctor advised him to avoid the dust as much as possible. In his pre-trial deposition, Borel testified that for years he had known that inhaling the dust was bad for him. Borel also testified, however, that he never was aware that serious or terminal illness could result. The trial court gave instructions on strict liability and assumption of risk, and the jury returned a verdict for the plaintiff.

On appeal the defendants argued that they were entitled to a verdict on the basis of assumption of risk as a matter of law.[44] In upholding the jury's verdict the court of appeals referred to Borel's testimony that he never realized the dust could cause serious illness[45] and indicated that a jury could find "that Borel never actually knew or appreciated the extent of the danger involved" despite the fact that the danger could be considered fairly obvious.[46] Thus, although a plaintiff may clearly be aware of the probability of harm, he cannot be found to have assumed the risk unless he also knew the *gravity* of the possible harm.[47]

Just as lack of knowledge of the gravity of harm prevents one from fully knowing and appreciating the risk, ignorance of the greater probability that the harm will actually occur also prevents one from fully appreciating the risk. This concept explains why it is said that knowledge of the specific defect is required before there can be an assumption of risk in products

44. *Id.* at 1081-83.

45. 'A. Yes, I knew the dust was bad but we used to talk [about] it among the insulators, [about] how bad was this dust, could it give you TB, could it give you this, and everyone was saying no, that dust don't hurt you, it dissolves as it hits your lungs. That was the question you get all the time.
Q. Where would you have this discussion, in your Union Hall?
A. On the jobs, just among the men.
Q. In other words, there was some question in your mind as to whether this was dangerous and whether it was bad for your health?
A. There was always a question, you just never know how dangerous it was. I never did know really. If I had known I would have gotten out of it.
Q. All right, then you did know it had some degree of danger but you didn't know how dangerous it was?
A. I knew I was working with insulation.
Q. Did you know that it contained asbestos?
A. Yes, sir, but I didn't know what asbestos was.'
Id. at 1082.

46. *Id.* at 1098.

47. *Id.*

liability cases[48] and why contributory negligence in encountering a known danger which is of the same nature as that created by the defect of which the plaintiff has no knowledge is not a defense.[49] There have been many cases in which a plaintiff, without knowledge of any defect in the product, has freely and unreasonably confronted situations of known danger, and the defective product has proximately caused an injury of the very same nature as that threatened by the danger to which the plaintiff freely exposed himself. The following examples are illustrative. A crane operator stands below an object improperly suspended from a crane, and the object falls on him due to a mechanical defect in the crane.[50] A laborer works dangerously close to a bulldozer, and the machine topples over on him because of its defective brakes;[51] or the driver runs over him because of a design defect which limits the driver's rear view.[52] A boater, sitting in a precarious position on the dash of a speed boat is thrown into the water and caught in the propeller when a defective steering mechanism causes the boat to suddenly swerve.[53] A reckless automobile driver who is involved in an accident is immediately engulfed in flames because of an improperly constructed gas tank.[54] In all these cases, the plaintiff was unaware of the defect in the product and, therefore, was ignorant of the greater probability that the possible harm, which he admittedly chose to chance, would actually occur.

Merely because a plaintiff enters into a known zone of danger does not mean that he has assumed the risk of the injury from any possible source, including unknown product defects. The relevant inquiry is whether he assumed the risk of injury presented by the unreasonably dangerous defective product.[55] Risk takers are not wrongdoers. The policy considerations underlying strict products liability do not dictate that risk takers be barred from recovering for injuries proximately caused by defective products, even though their negligent risk

48. *See* Hales v. Green Colonial, Inc., 490 F.2d 1015, 1021 (8th Cir. 1974); Berkebile v. Brantly Helicopter Corp., 337 A.2d 893 (Pa. 1975). *See* notes 50-56 and accompanying text *infra*.

49. Butaud v. Suburban Marine & Sporting Goods, Inc., 543 P.2d 209, 212 (Alas. 1975); Noel, *Products Liability: Bystanders, Contributory Fault and Unusual Uses*, 50 F.R.D. 321, 327-28 (1971). *See* notes 50-56 and accompanying text *infra*.

50. Reese v. Chicago, B. & Q.R.R., 55 Ill. 2d 356, 303 N.E.2d 382 (1973).

51. Smith v. Dhy-Dynamic Co., 31 Cal. App. 3d 852, 107 Cal. Rptr. 907 (1973).

52. Pike v. Frank G. Hough Co., 2 Cal. 3d 465, 467 P.2d 229, 85 Cal. Rptr. 629 (1970).

53. O.S. Stapley Co. v. Miller, 103 Ariz. 556, 447 P.2d 248 (1968).

54. DeFelice v. Ford Motor Co., 28 Conn. Supp. 164, 255 A.2d 636 (Super. Ct. 1969).

55. Smith v. Dhy-Dynamic Co., 31 Cal. App. 3d 852, 860, 107 Cal. Rptr. 907, 912 (1973).

taking concurrently caused their injury. Without knowledge of the unreasonably dangerous defect, a risk taker has as much right to rely on the implied representation of safety as does the most cautious person; indeed, he is much more in need of a safe product.[56] The conduct of such consumers can be characterized as putting the product to the test. The manufacturer has the duty to anticipate that his products will not always be used in risk free circumstances; consequently, he is under a duty to design, manufacture, and promote his product in such a way that it will not be unreasonably dangerous in its foreseeable uses.[57]

A unique situation is presented by a defective product which poses two different types of danger.[58] The total risk presented by a defective product which presents a risk of two different types of harm is equal to the gravity of harm *A* multiplied by the probability of *A*'s occurrence plus the gravity of harm *B* multiplied by the probability of *B*'s occurrence.[59] When the consumer is aware of only one possible injury from a defective product, it cannot be said that he assumed the risk of the other.[60] For example, although a plaintiff is aware of the toxicity of an epoxy spray paint and is clearly warned that adequate ventilation is required, he cannot be said to have assumed the risk of injury from an explosion caused by the fact that he did not adequately ventilate the work space.[61] Let us assume, however, that the plaintiff was actually injured from the inhalation of the toxic fumes.[62] Would assumption of risk be inapplicable because the plaintiff did not have full knowledge and appreciation of the danger? It would appear that he should be barred from recovery because he was fully aware and appreciated the risk of the spray's toxicity which causes his injury.[63] Whether the plaintiff is harmed by the danger of which he was aware

56. *Cf.* Robinson v. Pioche, Bayerque & Co., 5 Cal. 461, 462 (1885), where the court stated that, "[a] drunken man is as much entitled to a safe street, as a sober one, and much more in need of it."

57. *See* Noel, *Products Liability: Bystanders, Contributory Fault and Unusual Uses*, 50 F.R.D. 321, 322 (1971).

58. Jackson v. Coast Paint & Lacquer Co., 499 F.2d 809, 810-11 (9th Cir. 1974).

59. The total risk presented may be mathematically depicted as follows:

$$\begin{array}{l}\text{the gravity of harm } A \times \text{the probability of } A\text{'s occurrence} \\ +\text{the gravity of harm } B \times \text{the probability of } B\text{'s occurrence} \\ \hline =\text{the total risk presented}\end{array}$$

60. Jackson v. Coast Paint & Lacquer Co., 499 F.2d 809, 810-11 (9th Cir. 1974); Haugen v. Minnesota Mining & Mfg. Co., 15 Wash. App. 379, —, 550 P.2d 71, 75 (1976).

61. Jackson v. Coast Paint & Lacquer Co., 499 F.2d 809, 811-15 (9th Cir. 1974).

62. In *Jackson* the plaintiff actually did take adequate precautions against this danger through the use of a breathing hose. *Id.* at 811.

63. Keeton, *Assumption of Risk in Products Liability Cases*, 22 LA. L. REV. 122, 126 (1961); *see* Heil Co. v. Grant, 534 S.W.2d 916, 921-22 (Tex. Civ. App. 1976).

or by the danger of which he was not aware, his knowledge of the risk should be analyzed on the premise that risk is separable and not unitary.[64]

The Question of Degree

The question still remains, however, as to how close the plaintiff's knowledge of the risk must be to the actual realities of the risk situation created by a defective product. Does full appreciation of the risk mean that the plaintiff's perception of the risk must be perfectly congruent with reality? Must the plaintiff have calculated the risk with the certitude that one can calculate the probability of rolling snake eyes with a pair of dice?[65] To say that the risk is not fully appreciated when the plaintiff lacks substantial knowledge of either the probability or the gravity of the harm does lead to some fruitful analysis. The problem lies in the word "substantial"; it does not provide any useful guide in determining the question of degree.

Previous Arguments

Professor Robert Keeton noted that the concept of risk in itself indicated that there was some want of appreciation of the forces involved, otherwise one would know whether or not an injury would occur. He explained that since the concept of risk is one of man's abstract constructions, which can only be defined from some human point of view, it is necessarily based on incomplete understanding. He argued that full appreciation of the risk, therefore, can only have meaning in relative terms by holding out some point of view chosen as the standard.[66] Keeton then suggested that where the basis of the defendant's liability is negligence, full appreciation should mean, subject to some exceptions,[67] that the plaintiff understood the risk as well as the defendant should have understood it. This would mean that the plaintiff would have to know what a reasonable man in the position of the defendant would have known.[68] Whatever the validity of Keeton's analysis, the standard he suggests clearly has no value in strict products liability, since there is nothing that the manufacturer should necessarily have known for liability to result.[69] Liability is placed on the manufacturer merely

64. Keeton, *Assumption of Risk in Products Liability Cases*, 22 LA. L. REV. 122, 125-26 (1961).
65. *See* note 59 *supra*.
66. Keeton, *Assumption of Risk in Products Liability Cases*, 22 LA. L. REV. 122, 124-25 (1961).
67. *Id.* at 125 n.7.
68. *Id.* at 125.
69. 72 C.J.S. *Products Liability* § 7 (Supp. 1975).

because he is, as a matter of public policy, primarily responsible for consumer safety.[70]

Professor Mansfield proposed a sharply different standard.[71] Although he agreed that the very concept of risk imported some lack of knowledge and could only be defined in relation to some particular point of view, he did not agree with Keeton's selection of the view of the reasonable defendant.[72] He reasoned that the concept of risk as it relates to the defendant's conduct is designed to achieve the purpose of deterring the defendant from engaging in risk creating conduct. He contended that assumption of risk, however, is not concerned with deterring any particular conduct of the plaintiff, but rather with determining whether the plaintiff's conduct is such that it is just to deny him relief.[73] He proposed, therefore, that the plaintiff's knowledge is sufficient to make the defense operable if it provides "a sound basis, as is usually available in such circumstances, for deciding whether it is to the plaintiff's interest that [the harm actually occur]."[74] A more recent author, agreeing with Mansfield's approach and applying it to strict products liability cases, has argued that the knowledge criterion would be satisfied, if the plaintiff knows an important matter is at stake.[75]

The problem with applying Mansfield's proposed standard in the area of strict products liability is that the defense of assumption of risk in this area is concerned with deterring certain consumer conduct. Unlike the traditional concept of assumption of risk, the related defense in strict products liability only bars recovery if the plantiff, after having knowledge of the defect, acts *unreasonably* in using the product.[76] Assumption of risk in strict products liability, therefore, is concerned with deterring unreasonable consumer conduct after discovery of the unreasonable danger presented by a defective product. The point of view for defining the knowledge criterion should be intimately related to the concern for deterring such unreasonable consumer conduct and the policy underlying strict products liability. Since the ultimate goal of strict products liability is to provide for consumer safety, it is submitted that the plaintiff's knowledge is sufficient to make the defense operable, if it would cause a reasonable man to provide for his own safety by taking precautions commensurate with the risk. Such a standard would

70. *See* text accompanying notes 10-20 *supra.*
71. Mansfield, *Informed Choice in the Law of Torts*, 22 LA. L. REV. 17 (1961).
72. *Id.* at 37.
73. *Id.* at 38 n.29a.
74. *Id.* at 38.
75. Twerski, *supra* note 2, at 43.
76. *See* notes 1-5 and accompanying text and text accompanying notes 21-26 *supra.*

further the policy considerations of products liability by requiring the plaintiff to act reasonably or be barred from recovery, only when the plaintiff is in possession of such knowledge that, if he had acted reasonably, he would have been safe from the danger presented by the defective product.

The Suggested Test

In *D'Arienzo v. Clairol, Inc.*[77] the court impliedly adopted such a test. D'Arienzo used a Clairol hair coloring product which caused injuries to her hair, scalp, and face by an allergic reaction which she developed only after repeated use of the product. Although she had previously conducted a patch test as set forth in the directions before using the product on an earlier occasion, she did not do so before the application which caused her injuries. Clairol grounded its defense on the fact that if she had performed the patch test, which, as the instructions made clear, was to be conducted 24 hours before *each* application, the test would have revealed that the use of the product was contraindicated. Clairol moved for summary judgment; the motion was denied.[78]

Clairol's defense raised issues as to whether Clairol fully performed its duty to warn the consumers of its product, and whether D'Arienzo assumed the risk of her injuries. The court perspicaciously noted that these two issues were inextricably intertwined. The first issue poses the question of whether the defendant gave the plaintiff a full warning of the danger involved in the use of a product, while the second asks whether the plaintiff was actually fully aware of the danger involved.[79] If the manufacturer was to fulfill his duty to provide adequate consumer protection by imposing a measure of control on the inherently dangerous product through the use of a warning, the *D'Arienzo* court explained that it was *not* sufficient to merely give clear instructions on the product's safe use: " 'Implicit in the duty to warn is the duty to warn *with a degree of intensity that would cause a reasonable man to exercise for his own safety the caution commensurate with the potential danger.*' "[80] Thus, an adequate warning is one which provides sufficient information

77. 125 N.J. Super. 224, 310 A.2d 106 (Super. Ct. 1973).
78. *Id.* at 226-27, 310 A.2d at 107-08.
79. *Id.* at 227, 310 A.2d at 108. The only difference between the two issues is the standard applied. The adequacy of the warning is determined on an objective expected user standard, while the sufficiency of the knowledge for assumption of risk is based on a subjective standard. *See* Jackson v. Coast Paint & Lacquer Co., 499 F.2d 809 (9th Cir. 1974); 72 C.J.S. *Products Liability* §§ 28, 46 (Supp. 1975) (comparison of these two sections bears out the above proposition).
80. 125 N.J. Super. at 231, 310 A.2d at 110 (citing Tampa Drug Co. v. Wait, 103 So. 2d 603, 609, 75 A.L.R.2d 765 (Fla. 1958)).

to the consumer to put him in a position to control the risk situation created by the inherently dangerous product such that a reasonable man would adequately provide for his own safety. The court stated that such a warning would necessarily have informed the consumer of both of the factors constituting the risk.[81]

The court found it questionable whether either the gravity of the harm or the probability of its occurrence was adequately conveyed by the warning.[82] The warning did not state in detail the possible adverse reactions to the product[83] and the extent of the danger could have been clarified if the directions had explained that allergies can be acquired and that positive results with previous use is no indication that the user will not have an allergic reaction. Under these circumstances the court held that it could not find the plaintiff assumed the risk as a matter of law, but specifically left open the availability of the defense at trial.[84]

D'Arienzo exemplifies the more sound method of analysis in assessing a plaintiff's knowledge by focusing on the factors that compose risk, and by impliedly requiring that the plaintiff possess such knowledge that would induce a reasonable man to take adequate precautions to protect himself from the actual danger.[85] Keeping in mind the policy considerations underlying strict products liability, this would be the proper point for the law to shift part of the burden of consumer safety upon the consumer himself, by requiring that the consumer act reasonably when in possession of such knowledge. This is a much more meaningful

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81. 125 N.J. Super. at 231, 310 A.2d at 110.
82. *Id.* at 233-36, 310 A.2d at 111-13.
83. The instructions for the use of the product involved herein were both directive and explanatory. Undeniably, they stated that the patch test must be performed before each application. This was their directive linguistic function. Additionally, however, they explained the reason for this test. They indicated that 'certain individuals' may be allergic or hypersensitive to the product, though it was 'harmless to the multitude.' Twice thereafter sensitive individuals were referred to under the rubric of 'relatively few persons.' This explains the requirement of the patch test and is inseparable from the directive passages.

We note the fact that, save for the use of the terms 'allergic,' 'hypersensitive' and 'unfavorable effect or result,' no additional warning is given of any possible adverse consequences resulting from the use of the product. It is only in the course of the instructions for the performance of the patch test itself that the consumer is told, '. . . if any reddening of the skin, burning, itching, swelling, irritation, eruption or any other abnormal reaction is experienced in or around the test area, then the person is predisposed to the preparation and must not use it.' Clearly, if the consumer was unconvinced of the necessity for the test, he might well not continue reading into the instructions themselves.

Id. at 233, 310 A.2d at 111.
84. *Id.* at 236-37, 310 A.2d at 113.
85. *See id.* at 231, 310 A.2d at 110.

and useful statement than the "full appreciation of the risk" or the "specific defect" formulae.[86]

Full Appreciation

Typically, the probability factor of a risk in a products case is not capable of precise ascertainment. Using a defective product is not like playing Russian roulette or rolling dice, where the probabilities can be mathematically ascertained.

If full knowledge and appreciation of the risk were taken too literally, assumption of risk would rarely be applicable. For example, in *Moran v. Raymond Corp.*[87] the plaintiff made such a contention and the court properly rejected it. Moran was operating a forklift truck from outside the driver's cage against orders to the contrary. Moran knew that if he did not quickly withdraw his hand from the driver's cage after activating the forklift, a bar would hit him. The bar was only a foot and a half from Moran's head when he pulled the lever inside the cage. Moran's hand got caught inside the cage, and the bar came down on his arm causing serious injuries.[88] Moran argued that he was unaware that the bar would come down as quickly as it did, because his previous experience with these trucks was that the forklift moved at a slower rate.[89] This would indicate that he did not know the true probability of not getting his arm out in time. The court was not moved by the argument and made a visceral statement to the effect that the plaintiff knew enough to assume the risk holding that, "one who stands under the guillotine blade with knowledge of the fact that there will be a descent of the operational part upon activation of the controlling lever would scarcely seem to be in a position to claim that the blade fell faster than he anticipated."[90] Although the court's analogy is convincing, a better reasoned explanation could be made using the test suggested by the *D'Arienzo* opinion.[91] Reasonable men with Moran's knowledge and appreciation of the danger posed by the forklift would have exercised caution commensurate with the risk so that it would have been operated in a safe manner.

Specific Defect

Another statement frequently made is that the plaintiff must be aware of the specific defect in order to invoke assumption

86. *See* notes 8 and 9 *supra.*
87. 484 F.2d 1008 (7th Cir. 1973), *cert. denied,* 415 U.S. 932 (1974).
88. *Id.* at 1009, 1015-16.
89. *Id.* at 1016.
90. *Id.*
91. *See* text accompanying note 85 *supra.*

of risk.[92] This statement is misleading, literally incorrect, and of little analytical value. In an age of technically complex products the actual mechanical or design defect may not be apparent to the consumer, although the dangerous condition created by it may be readily apparent.[93] If knowledge of the specific defect were literally required by the law, assumption of risk frequently would not be applicable where the plaintiff should justly be barred from recovery.

Cornette v. Searjant Metal Products, Inc.[94] offers a good example on this point. Esta Cornette was a punch press operator whose work required her to reach into the press to remove metal "blanks" while the press "ram" was in the "up" position. While she had her hand in the press, the press "double-tripped" and cut off three of her fingers. Some evidence was introduced at trial to the effect that the machine "double-tripped" because of the absence of an air filter in the machine's control system. There was nothing to indicate that this possible defect was known to the plaintiff, but she did know that the press had "double-tripped" before.[95] The court held that assumption of risk was applicable so long as the risk was known and understood.[96] Once again the test suggested by *D'Arienzo* would provide a well reasoned answer to this case.[97] Reasonable men with knowledge of the machine's previous "double-tripping" would have taken precautions commensurate with the risk. The machine would not be dangerous to a reasonable man because he could have provided for his own safety.

Conclusion

Strict products liability places the primary responsibility for consumer safety on the manufacturer. The defense of assumption of risk shifts part of that responsibility upon the consumer by requiring him to act reasonably in the face of known product dangers. The knowledge criterion of the assumption of risk defense determines when the law imposes part of the responsibility of consumer safety on the consumer himself. If the consumer is to bear that responsibility it is clear that his knowledge

92. *See* note 9 and accompanying text *supra.*

93. *See, e.g.*, Gutelius v. General Elec. Co., 37 Cal. App. 2d 455, 99 P.2d 682 (1940) (plaintiff knew that washing machine wringer, in which she caught her hair and was unable to stop, was difficult to shift into neutral, but had no knowledge of the "burr" in the clutch mechanism responsible for the difficult shifting); Cornette v. Searjeant Metal Prods., Inc., 147 Ind. App. 46, 258 N.E.2d 652 (1970) (plaintiff knew punch press would sometimes "double-trip," but did not know that air filter was missing which caused the machine to "double-trip").

94. 147 Ind. App. 46, 258 N.E.2d 652 (1970).

95. *Id.* at 48, 258 N.E.2d at 653-54.

96. *Id.* at 54, 258 N.E.2d at 657.

97. *See* text accompanying note 85 *supra.*

of the danger presented by the defective product must be subjective, not constructive or imputed. The law does not require the consumer to anticipate and guard against the possibility of dangerous product defects; that responsibility is placed entirely upon the manufacturer.

Once it becomes clear that the consumer does know something about the danger presented by a defective product, it is necessary to determine whether he knows enough so that the law should properly require him to act reasonably or be barred from any recovery. The question can be initially analyzed by breaking the risk into its factors—the gravity of the possible harm and the possibility of its occurrence. If the consumer is substantially lacking knowledge of either one of these factors, the knowledge criterion of the assumption of risk defense has not been met. The question, however, is essentially one of degree, and in the close case there is little guidance offered by a standard requiring substantial knowledge of both of the factors constituting risk. The same is true of a standard requiring full appreciation of the risk or knowledge of the specific defect.

To solve this problem of degree it is suggested that the knowledge criterion should require that the consumer have sufficient knowledge to cause a reasonable man to provide for his own safety by taking precautions commensurate with the risk. Since the ultimate goal of products liability is consumer safety, it makes sense that the knowledge criterion should be formulated in such a manner so that the consumer will not be barred from recovery by the assumption of risk defense, unless he could be expected to have provided for his own safety. This supports developing a standard for the knowledge element which is intimately related to the element of unreasonable use in the assumption of risk defense.

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