A SYNOPSIS OF THE DEVELOPING LAW OF PRODUCTS LIABILITY

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I. THE SCOPE OF PRODUCTS LIABILITY

A. *The Growth of Products Liability*

In the past fifteen years there have been far-reaching developments in the law pertaining to the liability of suppliers of chattels. Most notably, principles of strict liability are now widely applied to permit recovery against one in the business of supplying chattels, when he supplies a chattel that is unreasonably dangerous or defective causing physical injury to the person or property of another. Such recovery is permitted without regard to the presence or absence of privity of contract.

This basis of this strict liability is often placed in tort rather than in contract or warranty, although alternative remedies of strict liability such as implied warranty are usually recognized as well. The advantage of bringing

the action in strict tort is that contractual defenses such as privity of contract, notice of breach and disclaimers and limitations of remedies are held inapplicable.

Negligence remains, however, a vital part of the law pertaining to the liability of suppliers of chattels—or the law of products liability, as it has come to be known. The continued vitality of negligence in an area where strict liability equally applies may be attributable to the preference of plaintiffs' attorneys to prove fault of the defendant whenever they can.

Another major ground for recovery in products liability is misrepresentation. The misrepresentation may be intentional, negligent or innocent. It takes the place of the product defect that would otherwise have to be proved. If a supplier says his product has a certain quality, or will perform in a specified way, then he may be liable if it lacks the represented feature even though he would not be liable if there were no representation. A misrepresentation may occur by public advertising as well as by private statement, thus opening up a vast area of potential liability in this day of mass media advertising.

There has probably been a consistent trend toward greater liberality with regard to the burden of proof imposed on a plaintiff in proving his products claim. Certainly the tendency to allow evidence of subsequent remedial measures to show defectiveness makes it easier for the plaintiff to establish this element of his case. Beyond that, greater use of a res ipsa loquitur approach, and an occasional shifting of the burden of proof on issues of negligence, defectiveness and causation significantly facilitate the plaintiff's task. To the extent that a plaintiff is now able to establish a prima facie case more easily than before, either the defendant is required to come forward with stronger rebuttal evidence, or the risk of imposing absolute liability is increased. These results may be desirable as a means of providing private compensation for accidental injuries in a society that has so far been unwilling to institute a broad form of public compensation for injury and sickness.

There has also been a remarkable upsurge in the number of products liability suits filed, and in the size of verdicts obtained.[1] Typically suits filed represent only a small fraction of claims made, so it can be assumed that the total number of products claims is quite large. This trend is probably attributable to a number of factors, including greater consumer awareness, inflation and some say decreasing availability of remedies in other traditional torts areas. Expectably, the trend has resulted in greater costs for and scarcity of products liability insurance, and concomitant demands by product suppliers and their insurers for judicial and legislative retrenchments on the right of recovery. From the plaintiffs' viewpoint, the solution seems apparent

1. "The best 'estimate' of the number of product liability claims filed in 1976 is between 60,000 and 70,000 . . . In our target industries, the average number of pending claims appears to have increased substantially between 1971 and 1976." INTERAGENCY TASK FORCE ON PRODUCT LIABILITY—FINAL REPORT xxxvii-xxxviii (U.S. Dept. of Comm. 1977). A good source to gauge the size of verdicts and settlements in products litigation is the A.T.L.A. L. REP. Recoveries in excess of a million dollars are common for serious injuries.

if not simple: manufacturers should make safer products. The debate is likely to continue for a long time, with the battle lines shifting back and forth. Regardless of the way particular aspects of this debate may be resolved, products liability is likely to remain a prominent part of the law of torts in this country for the foreseeable future.

B. *The Product Transaction and Analogous Transactions*

Products liability is a fluid area of the law, and this fluidity makes difficult the determination of both its actual and its proper scope of application. The problem of identifying the scope is not as critical with negligence as it is with strict liability, since every person generally owes a duty to act with due care toward others, whether the act involves supplying a product or some other activity. Fault is the usual basis for imposing tort liability, and strict liability has generally been treated as an exception to the rule. Whether this rule-exception description will continue to be accurate is a matter of some doubt.

1. *Negligence*

Even where negligence is concerned, significant issues of scope of application may be involved when the law of products liability impinges on an area of torts with more restrictive rules of liability. For example, traditionally the gratuitous bailor of a chattel has been required only to disclose chattel defects of which he has actual knowledge.[2] If the bailment is viewed as a product transaction, however, a negligence standard may be imposed.[3]

Similarly, transactions not involving products may nevertheless be analogized to product transactions, with consequent application of a standard at least of due care if not strict liability. Thus, a contractor or designer of improvements on real estate may be required to exercise due care in the conduct of his activity, and may not be relieved of liability for his negligence after acceptance of the improvement.[4] The owner or occupier of business premises may be required to exercise due care toward all who come onto his property, regardless of whether the entrant is classified as a licensee, invitee or trespasser.[5] Why should any of these persons be held to a lesser standard of care than the supplier of chattels?

There are a number of exceptions in the law of torts requiring proof of fault greater than that of negligence, or denying recovery althogether in some

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2. W. Prosser, The Law of Torts 677 (4th ed. 1971).

3. *See* Delaney v. Towmotor Corp., 339 F.2d 4, 6 (2d Cir. 1964) (negligence and strict liability standard applied to gratuitous bailor of machinery).

4. *See* D. Noel and J. Phillips, Products Liability Cases and Materials 225-254 (1976) [hereinafter cited as Noel & Phillips].

5. The trend appears to be toward the adoption of a uniform standard of due care on the part of the land occupier, at least toward licensees and invitees and in some cases toward trespassers as well. Oullette v. Blanchard, 364 A.2d 631, 639 (N.H. 1976). *But cf.* Pegg v. General Motors Corp., 391 A.2d 1074, 1076 (Pa. Super. 1978) (equally divided court affirms finding of no duty owed to thief of product by manufacturer thereof).

instances. These exceptions, which may be common law, statutory or constitutional, are designed to promote overriding social policies. The liability of news media for defamation of public persons is constitutionally restricted to proof of knowing falsehood or reckless disregard to the truth, in order to promote freedom of communication on issues of public importance.[6] Interspousal immunity for negligence is said to promote marital harmony and to prevent collusive claims.[7] Guest passenger statutes, requiring proof of reckless misconduct by a gratuitous automobile passenger in a claim against the driver, have also been justified on grounds of preventing fraudulent claims and of fostering hospitality.[8]

The clear trend of tort law, however, has been toward requiring proof of no greater fault than that of negligence. Exceptions to this rule should require strong policy justification. The degree of care required of a person may vary according to the circumstances, but the bottom line should normally be negligence. In this respect product transactions resemble rather than differ from general tort law.

2. *Strict liability*

The harder problem is to determine when strict liability should be applied in tort law. It applies to one who is in the business of selling products, but it has not been limited either to sales or to products. The trend has been to apply strict liability to those in the business of leasing products[9] and to those in the business of selling real estate,[10] although the first does not involve a sale and the second does not involve a chattel or product. Strict liability has been applied to those in the business of furnishing services connected with the supply of goods,[11] and to goods loaned or displayed by one in the business of selling them.[12]

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6. *See* Gertz v. Robert Welch, Inc., 418 U.S. 323, 349 (1974). In the case of the defamation by news media of plaintiffs who are private persons, at least negligence on the part of the defamer must be shown. *Id.* at 347. It is unclear whether these rules apply only to defendants who are news media, or to other defendants as well. *See* Harley-Davidson Motorsports, Inc. v. Markley, 568 P.2d 1359, 1361-64 (Or. 1977).

7. *See* Annot., 43 A.L.R. 2d 632 (1955). The trend, however, seems to be toward the abolition of intrafamily immunities. *See* Sorenson v. Sorenson, 339 N.E.2d 907, 908 (Mass. 1975) (parent-child immunity abolished); Merenoff v. Merenoff, 76 N.J. 535, ____, 388 A.2d 951, 962 (1978) (intraspousal immunity abolished).

8. *See* Justice v. Gatchell, 325 A.2d 97, 100 (Del. 1974). A number of jurisdictions have struck down such statutes as unconstitutional. The cases pro and con are reviewed in Nehring v. Russell, 582 P.2d 67, 74-76 (Wyo. 1978).

9. *See, e.g.,* Nath v. Nat'l Equip. Leasing Corp., 373 A.2d 1105, 1106 (Pa. 1977); *cf.* Brescia v. Great Road Realty Trust, 373 A.2d 1310, 1312 (N.H. 1977) (strict liability inapplicable to product lessor who is not in the business of leasing).

10. *See, e.g.,* Berman v. Watergate West, Inc., 391 A.2d 1351, 1357 (D.C. App. 1978); Patitucci v. Drelich, 153 N.J. Super. 177, ____, 379 A.2d 297, 298 (1977).

11. *See, e.g.,* Newmark v. Gimbel's, Inc., 258 A.2d 697, 701-02 (N.J. 1969). *See* Greenfield, *Consumer Protection in Service Transactions—Implied Warranties and Strict Liability in Tort,* 1974 UTAH L. REV. 661.

12. *See, e.g.,* Delaney v. Towmotor Corp., 339 F.2d 4, 6 (2d Cir. 1964) (loan of machinery);

Courts have generally stopped short of applying strict liability to injuries caused by dangerous business premises[13] or by the product-related services of a professional such as an architect, doctor or dentist.[14] To apply strict liability in these situations would constitute a substantial revision of the present law of torts pertaining to land occupiers and to medical as well as legal malpractice. Yet it may prove difficult in the future not to extend strict liability to these areas, since its parameters seem logically determined by the risks that are reasonably incident to carrying on a business.[15]

In the case of injuries caused solely by the rendering of services, as opposed to injuries caused by a defective product used in a service transaction, strict liability probably should not be applicable because of the difficulty of defining defectiveness other than in terms of negligence. If a doctor fails to achieve a certain medical result, there are no community standards of expectation by which to judge the failure except by due care. Where an injury occurs even though due care is exercised, the cause may well be attributable to some source other than the doctor. If on the other hand the injury is caused by a defective instrument used by the doctor, it may be appropriate to hold him strictly liable.[16] Where the defect can be traced to the point of manufacture or sale, the doctor would normally have a strict liability action over against his supplier, similar to the action of a retailer against his supplier.

C. *Defining Defectiveness or Unreasonable Danger*

If a plaintiff brings a product action on some basis other than misrepresentation, he is usually required to prove that the product which caused his injury was defective when it left the hands of the defendant supplier. Proof of defectiveness is required whether the suit is brought in negligence or in strict liability.[17] Defining defectiveness has been a difficult and major concern

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Davis v. Gibson Products Co., 505 S.W.2d 682, 691 (Tex. Civ. App. 1973) (display of machete for sale).

13. *See, e.g.*, Hutter v. Badalamenti, 362 N.E.2d 114, 117 (Ill. App. 1977) (dance floor); Lowrie v. City of Evanston, 365 N.E.2d 923, 928-29 (Ill. App. 1977) (parking garage); Keen v. Dominick's Finer Foods, Inc., 364 N.E.2d 502, 509 (Ill. App. 1977) (gorcery store shopping cart). *But see* Garcia v. Halsett, 3 Cal. App. 3d 319, ____, 82 Cal. Rptr. 420, 423 (1970) (strict liability against laundromat for injuries from defective laundromat machine).

14. City of Mounds View v. Walijarvi, 263 N.W.2d 420, 423-25 (Minn. 1978) (architect); Magrine v. Spector, 53 N.J. 259, 250 A.2d 129 (1969); Hoven v. Kelble, 79 Wis. 2d 444, ____, 256 N.W.2d 379, 392 (1977) (doctor). *But see* Furrow, *Defective Mental Treatment: A Proposal For The Application Of Strict Liability To Psychiatric Services*, 58 B.U.L. Rev. 391 (1978).

15. *See* Greenfield, *supra* note 11; Ursin, *Strict Liability For Defective Business Premises—One Step Beyond Rowland and Greenman*, 22 U.C.L.A. L. Rev. 820 (1975). *But see* Sales, *The Service-Sales Transaction: A Citadel Under Assault*, 10 St. Mary's L.J. 13 (1978), arguing against the extension of strict liability to sales-service transactions.

16. *Cf.* Grubb v. Albert Einstein Medical Center, 387 A.2d 480, 487-90 (Pa. Super. 1978) (strict liability standard applied against hospital for supply of defective surgical instrument, but only standard of due care applied to the treating doctor).

17. Browder v. Pettigrew, 541 S.W.2d 402, 404 (Tenn. 1976). *Cf.* Greiten v. La Dow, 70 Wis. 2d 589, 603, 235 N.W.2d 677, 685 (1975), holding that neither defect nor unreasonable danger

in the law of products liability.

For purposes of the implied warranty of merchantability, a breach or defect is said to exist if the product is not reasonably suitable for the ordinary uses for which goods of that description are sold.[18] Yet in many situations there is no common knowledge of the level of quality or of performance expected of a product, and expert or other evidence is required to establish the level of expectation.[19] Clearly, therefore, the phrase "ordinary uses" does not always refer to common knowledge.

In the case of negligence and strict liability in tort, courts usually speak in terms of an unreasonably dangerous and defective condition as the standard for determining defectiveness. The term "defective condition" adds nothing to the definition in this context, and the operative phrase is "unreasonably dangerous."[20] Ordinary expectations may here be used in determining whether a product is unreasonably dangerous,[21] but again, when those expectations do not fall within the realm of common knowledge, additional evidence is necessary.[22]

There are some kinds of product conditions that we can probably all agree are defective or unreasonably dangerous. If the steering gives way on a

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must be proved in a negligent design case. The decision is sharply criticized in Twerski, *From Defect to Cause to Comparative Fault—Rethinking Some Product Liability Concepts*, 60 MARQ. L. REV. 297, 331-35 (1977). *See also* Hansen v. Cessna Aircraft Co., 578 F.2d 679, 684 (7th Cir. 1978) (jury must be charged, on plaintiff's request, in negligence as well as strict liability even though the jury finds no defect under the strict liability charge); *contra*, Halvorson v. Amer. Hoist & Derrick Co., 307 Minn. 48, ____, 240 N.W.2d 303, 307-08 (1976) (defendant cannot be found liable in negligence if acquitted on strict liability count).

18. McCabe v. L.K. Liggett Drug Co., 330 Mass. 177, ____, 112 N.E.2d 254, 256 (1953); U.C.C. § 2-314(2)(c) (1978 offic. text).

19. *See, e.g.*, Jakubowski v. Minn. Mining and Mfg. Co., 42 N.J. 177, 199 A.2d 826, 830-32 (1964) (negligence and breach of warranty).

20. Montgomery and Owen, *Reflections on the Theory and Administration of Strict Tort Liability for Defective Products*, 27 S.C. L. REV. 803, 808-24 (1972). Some courts have rejected the "unreasonably dangerous" standard as a basis for charging the jury in strict liability because it sounds too much like a negligence standard, Butaud v. Suburban Marine & Sporting Goods, Inc., 543 P.2d 209, 213-14 (Alaska 1975); Cronin v. J.B.E. Olson Corp., 8 Cal. 3d 121, ____, 501 P.2d 1153, 1162, 104 Cal. Rptr. 433, 442 (1973); Glass v. Ford Motor Co., 123 N.J. Super. 599, ____, 304 A.2d 562, 564 (1973), or because it is likely to mislead the jury, Azzarello v. Balck Bros. Co., 391 A.2d 1020, 1027 (Pa. 1978).

21. RESTATEMENT (SECOND) OF TORTS § 402A, Comment *i* (1965); Estate of Ryder v. Kelly-Springfield Tire Co., 587 P.2d 160, 164 (Wash. 1978). The ordinary consumer expectations test has been criticized and rejected because, in the case of design defects, the consumer often has no ordinary expectations, Cepeda v. Cumberland Eng'r Co., 76 N.J. 152, 386 A.2d 816 (1978). The court in Stenberg v. Beatrice Foods Co., 576 P.2d 725 (Mont. 1976), rejected the test because it unduly prejudices the defendant in the case of obvious defects. The Montana court adopted instead a test of whether the manufacturer would be unreasonable in marketing a product if it knew of the dangers associated with the product's use. In General Motors Corp. v. Turner, 567 S.W.2d 812 (Tex. Ct. App. 1978), the court adopted a cost-benefit balancing test. The Iowa Supreme Court in Aller v. Rodgers Mach. Mfg. Co., 268 N.W.2d 830 (Iowa 1978), apparently considered the three tests of consumer expectations, seller imputed knowledge and cost-benefit analysis as essentially the same test.

22. Heaton v. Ford Motor Co., 248 Or. 467, 435 P.2d 806, 808 (1967).

new car, or the brakes fail, the car clearly is defective as a matter of common knowledge.[23] Where expectations are less clearly defined, additional proof may be necessary. How much stress should a product material be able to withstand? We may have common expectations in this regard in some cases, while in others we do not.

Where additional proof is required, over and above common knowledge, the accepted approach is to phrase the issue in terms of the balancing standard traditionally used to determine the presence or absence of negligence. The issue is whether the likelihood and gravity of harm outweigh the cost of preventing it. If the risk is greater than the cost of prevention, the defendant will be held liable. If the risk is less, it will be considered a reasonable one with the burden of the loss remaining on the injured victim.[24]

Obviously this balancing formula cannot be applied with any sort of mathematical exactness. The considerations to be weighed are not quantifiable as they involve emotions and value judgments. Nevertheless, the formula gives a rough approximation of the matters in issue in determining defectiveness, and it points the inquiry in the right direction.

Although the formula was originally devised to determine the presence or absence of negligence, it is also applied to determine product defectiveness in either a fault or a strict liability context. In the case of strict liability, it is of no consequence whether the supplier knows or should know of any dangerous condition in his product. It is likewise of no consequence whether he can discover and apply the most efficient means of preventing injury. As far as foreseeability of use of a product is concerned, the standard of foresight expected of the supplier is probably the same whether fault or strict liability is applied.

It may be contended that the product supplier should be liable for injuries caused by his product regardless of whether the cost of prevention is greater or less than the likelihood and gravity of harm. The liability could attach as a proper incident of the cost of doing business. However, this analysis overlooks the purpose of the balancing formula. Suppose the cost of prevention adversely affects the utility of a desirable product? Such an effect may occur either by redesigning the product so as to undermine its utility, or by raising its price prohibitively in order to cover the cost of injuries.[25] In

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23. Phipps v. General Motors Corp., 363 A.2d 955, 959 (Md. 1976).

24. Hagans v. Oliver Machin. Co., 576 F.2d 97, 99-100 (5th Cir. 1978).

25. *Cf.* the Restatement definition of the intentional invasion of land as an unreasonable nuisance where:

> (a) The gravity of the harm outweighs the utility of the actor's conduct, or
>
> (b) The harm caused by the conduct is substantial and the financial burden of compensating for this and other harms does not render infeasible the continuation of the conduct.

RESTATEMENT (SECOND) OF TORTS § 826 (1965). For an account of the evolution of subsection (b) of this section, see H. SHULMAN, F. JAMES, JR., O. GRAY, TORTS CASES AND MATERIALS 74-78 (3d ed. 1976).

Often a suggested alternative design which would eliminate the danger in issue is unacceptable because it would create other dangers. *See, e.g.*, Korli v. Ford Motor Co., 69 Cal. App. 3d

such a situation the user may be the more efficient cost avoider. Even so, the supplier may have a duty to instruct and warn the user so he can intelligently take preventive action. Instructions and warnings generally cost little, and a duty to act in this regard may be imposed on the supplier even where no other duty exists.[26]

II. The Bases of Liability

A. *Deceit and Fraudulent Concealment*

An action for deceit or for fraudulent concealment may lie against a product supplier. The essential elements are that the defendant intends to mislead[27] the plaintiff with regard to the existence or nonexistence of a material fact of which the defendant has actual knowledge, and the plaintiff relies to his detriment on the misleading information. If the supplier makes an express material misstatement regarding a product transaction, he is guilty of deceit or fraudulent misrepresentation.[28] If he withholds information when he should speak, he is guilty of fraudulent concealment.[29] Either type of conduct may give rise to a claim for punitive as well as for compensatory damages.[30]

Although the defendant's misconduct in *Gillham v. Admiral Corp.*[31] is described as reckless misconduct, the case illustrates misconduct involving both deceit and fraudulent concealment. The court upheld an award of compensatory and punitive damages against a manufacturer of color television sets containing a serious fire hazard resulting from a concealed defective design. The defect was caused by use of unsuitable paper and wax materials in the high-voltage transformers of the sets. The hazard could have been eliminated by use of superior, inexpensive materials used by other television manufacturers. Defendant, after receiving numerous customer complaints of fires resulting from use of the sets, nevertheless failed to redesign the sets, did not inform purchasers or prospective purchasers of the hazard and actively misled concerned customers by informing them that the sets were safe. The failure to inform under those circumstances constituted fraudulent concealment, and the misstatements deceit.

115, 137 Cal. Rptr. 828, 833 (1977); Caterpillar Tractor Co. v. Gonzales, 562 S.W.2d 573, 578-79 (Tex. Ct. App. 1977).

26. Dalke v. Upjohn Co., 555 F.2d 245, 247-48 (9th Cir. 1977); Greiner v. Volkswagenwerk Aktiengeselleschaft, 540 F.2d 85, 92-93 (3d Cir. 1976).

27. If the defendant intends to deceive, it is immaterial whether his motives are benign or altruistic. James & Gray, *Misrepresentation*, 37 Md. L. Rev. 286, 295 (1977).

28. Mills v. Keith Marsh Chevrolet, Inc., 549 S.W.2d 604, 606 (Mo. App. 1977).

29. Hibschman Pontiac, Inc. v. Batchelor, 362 N.E.2d 845, 848 (Ind. 1977).

30. Mills v. Keith Marsh Chevrolet, Inc., 549 S.W.2d at 606. "Where the conduct of a party, in breaching his contract, independently establishes the elements of a common law tort, punitive damages may be awarded for the tort." Hibschman Pontiac, Inc. v. Batchelor, 362 N.E.2d at 847.

31. 523 F.2d 102 (6th Cir. 1975).

B. *Negligent Misrepresentation*

Statements which the defendant, as a reasonable person, should know to be inaccurate constitute negligent misrepresentation. So do statements which he has no reasonable basis for believing to be true. Thus in *Cunningham v. C.R. Pease House Furnishing Co.*[32] the defendant's retail sales clerk was guilty of negligent misrepresentation in stating to a customer that a stove blacking was suitable for application on hot stoves. The negligence was in making the statement without any reasonable basis for doing so. If the clerk had been told by the stove polish manufacturer, as a reputable manufacturer, that the polish was safe for use on hot stoves, then the clerk's conduct in repeating the statement to customers might have been entirely reasonable. It is only when the seller makes a misstatement without any reasonable basis for believing it to be true that liability for negligent misrepresentation is imposed.

There have been several cases in the products field imposing liability for negligent misrepresentation by product certifiers who examine or test a product and then make representations as to its safety or other qualities.[33] The plaintiff who relies on these representations to his detriment may have an action against the certifier even though the latter does not supply the product. In this day when many products are subject to testing and certification by companies independent of the product supplier, suits for negligent certification may prove a valuable source of recovery. Indeed, a suit would probably lie for negligence in the inspection or testing, without regard to the presence of a certification, and such a suit could avoid possible problems of having to prove reliance on the representation.[34]

One case held that a magazine publisher could not be found liable in negligence for failure to investigate and test a dangerous product (fireworks) advertised in the magazine.[35] If the publisher had undertaken to guarantee or endorse the product, liability for negligent misrepresentation could be imposed.[36] But mere advertising, without more, the court said, imposed no duty on the publisher to determine the safety of the product advertised.

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32. 74 N.H. 435, 69 A. 120 (1908)

33. *See* Annot., 39 A.L.R. 3d 181 (1971).

34. *See* Griffin v. United States, 500 F.2d 1059, 1068-69 (3d Cir. 1974). In a suit against the federal government involving misrepresentation arising out of negligent conduct of the government, the defendant may contend that the misrepresentation exception to the Federal Torts Claims Act, 28 U.S.C. § 2680(h) (1976), bars the suit. *See* Fitch v. United States, 513 F.2d 1013, 1015 (6th Cir. 1975). A sympathetic court may, however, be willing to view the negligent conduct and the misrepresentation as separate torts, and to allow a suit based on the conduct alone. *Cf.* Quinones v. United States, 492 F.2d 1269, 1276-77 (3d Cir. 1974) (defamation based on negligent record-keeping, suit for latter permitted though suit for former barred by statutory exception).

35. Yuhas v. Mudge, 129 N.J. Super. 207, 322 A.2d 824 (1974).

36. *See* Cooga Mooga, Inc. et al., 3 TRADE REG. REP. (CCH) ¶ 21,417 (1978), wherein entertainer Charles E. "Pat" Boone was required by an FTC consent order to "make a reasonable inquiry before endorsing products in the future." Mr. Boone has been sued for injuries allegedly caused by a product (Acne-Statin) endorsed by him. THE KNOXVILLE, TENN. NEWS-SENTINEL, Aug. 20, 1978, § A, at 6.

C. *Innocent Misrepresentation*

1. *Express Warranty*

Section 2-313 of the Uniform Commercial Code defines express warranties when made by the seller of goods.[37] The liability created by this section is strict liability in the sense that it does not matter whether the seller either knew or should have known that his express warranty was a misrepresentation. As long as it is inaccurate, the seller can be held liable for resulting damages.[38]

Express warranties arise in a bargaining context, and normally run from the seller to the buyer. Thus, they must be "part of the basis of the bargain,"[39] *i.e.* bargained for. However, they need not be supported by special consideration, over and above that necessary to sustain the bargain as a whole. They need not be made when the bargain is entered into, but can be made thereafter, since an agreement modifying a contract under the Uniform Commercial Code needs no consideration to be binding.[40]

A seller of goods may expressly warrant them to possess ordinary qualities of reasonable fitness for the purpose for which they are sold. In that event, the express warranty may add little significance to warranties implied by law.[41] Express warranties are of special significance where they constitute representations that the goods possess a quality in addition to those implied by law. In this situation the buyer recovers solely by reason of the express representation if it proves false. Thus if the seller represents that an electrical panel box will not open when the switch is in "off" position, he will be liable where the representation proves erroneous because the interlock device is bypassed by lightning damage.[42] Similarly, if he represents that tires will not blow out during the life of the original tread when subjected to normal use, he will be liable for resulting injuries if the warranty proves incorrect.[43] Ab-

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37. (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.
U.C.C. § 2-313(1) (1978 offic. Text).

38. L. Frumer and L. Friedman, Products Liability § 16.01[1] (1978). *But note* the possible excuse provided by failure of a presupposed condition under U.C.C. § 2-615 (1978 offic. text).

39. U.C.C. § 2-313(1) (1978 offic. text).

40. U.C.C. § 2-209(1) (1978 offic. text).

41. But in the case of a suit against a remote manufacturer for economic loss alone, an express warranty may be necessary in order to overcome the necessity of proving privity of contract. *See* Seely v. White Motor Co., 63 Cal. 2d 9, ____, 403 P.2d 145, 148, 45 Cal. Rptr. 17, 20 (1965).

42. Huebert v. Fed. Pacif. Elec. Co., 208 Kan. 720, ____, 494 P.2d 1210, 1217 (1972).

43. Collins v. Uniroyal, Inc., 126 N.J. Super. 401, ____, 315 A.2d 30, 33-34 (1973).

sent such representations, the seller would normally not be liable for these product failures. The representations give rise to justifiable special expectations, beyond those ordinarily associated with the product.

2. *Strict Liability in Tort and Section 402B*

A tort doctrine of recovery has developed in recent years parallel to that of express warranty. The doctrine had its origin in part in such express warranty cases as *Baxter v. Ford Motor Co.*[44] *and Rogers v. Toni Home Permanent Co.*,[45] which historically derive from earlier cases in deceit. Courts are now integrating the tort origins of deceit with the strict liability aspects of express warranty, to evolve a new doctrine of strict tort liability for public misrepresentation. The doctrine as adopted by several courts is expressed in section 402B of the Restatement (Second) of Torts.[46]

The importance of being able to sue in strict tort for public misrepresentation is that by asserting a tort theory as the basis of his suit, the plaintiff may be able to avoid such contractual defenses as lack of privity, disclaimer, notice of breach and date-of-delivery accrual of the statute of limitations.[47] In addition, the range of plaintiffs may be broader in strict tort than express warranty, since section 402B refers to injured consumers as plaintiffs while the Uniform Commercial Code may restrict express warranty claims to buyers and such third party beneficiaries as can recover under section 2-318.[48]

It is unclear from the developing case law whether strict tort and express warranty for innocent misrepresentation overlap, or whether these remedies are mutually exclusive. One possible distinction is that section 402B speaks

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44. 168 Wash. 456, 12 P.2d 409 (1932).

45. 167 Ohio St. 244, 147 N.E.2d 612 (1958). *See* ALI RESTATEMENT (SECOND) OF TORTS § 402B (1966).

46. 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 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).

This section has been used as the basis for recovery in Crocker v. Winthrop Laboratories, 514 S.W.2d 429, 431 (Tex. 1974) (addictive drug), and in Klages v. Gen'l Ordinance Equip. Corp., 367 A.2d 304, 307-08 (Pa. Super. 1976) (defective mace).

47. *See* RESTATEMENT (SECOND) OF TORTS § 402B, Comment *d* (1965).

48. Section 402B if literally applied restricts recovery to "physical harm to a consumer," but it seems likely that a court in an appropriate case would extend recovery to users, and to persons who have incurred physical harm to their property, as does section 402A. Since comment *j* to section 402B indicates that the plaintiff need not be the one who actually relies in order to recover under that section, perhaps the section's coverage will also extend to bystanders where the damage occurs as a result of another's reliance on the seller's misrepresentation.

There is no restriction on recoverable damages under the U.C.C. as long as they are reasonably foreseeable, section 2-715, but the permissible plaintiffs may be restricted depending on which version of section 2-318 is adopted. *See* U.C.C. §§ 2-715, 2-318 (1978 offic. text).

in terms of a "public" misrepresentation, while Uniform Commercial Code section 2-313 speaks only of express warranty. Is it appropriate to apply section 402B only to public misrepresentations, and section 2-313 only to private misrepresentations? Or does section 2-313 apply to both public and private misrepresentations?

What is the policy behind restricting recovery in strict tort for misrepresentation to those situations involving a public misrepresentation? Perhaps the drafters of the Restatement envisaged mass advertising and the like as the sole basis for this strict liability tort, and concluded that where parties deal on a one-to-one basis they should be left to their contractual remedies for innocent misrepresentation. The distinction would presumably be based on an assumption that individually given express warranties are dickered for between bargaining parties and thus have a contractual character, unlike mass advertising. Where the representations are contained in a form contract unilaterally dictated by a seller in a superior bargaining position, such an assumption is incorrect. Here tort rules should apply, unlimited by freedom of contract principles, regardless of whether the representations are made to the public at large or only to individual plaintiffs.

A significant distinction between section 402B and express warranty is that section 402B applies only to one "engaged in the business of selling chattels" while the express warranty provision of Code section 2-313 applies to any seller. John Doe selling his second-hand car to the neighbor next door may make an express warranty, and he will be liable for its breach under section 2-313. For liability to attach under 402B, Doe must be regularly engaged in the business of selling cars.

The major reasons for imposing strict products liability in tort are to place the financial costs of loss caused by defective products on the person who is best able to bear that loss and on the one who can most equitably spread it among those using the product, and to place the loss on the person that is most likely able to prevent its recurrence.[49] That person, the courts have concluded, is the one who is regularly engaged in the business of selling the product. The Uniform Commercial Code, on the other hand, while concerned with regular trade, also places a strong emphasis on the right of parties generally to enter into such voluntary agreements as they choose.

D. *Implied Warranty*

1. *Merchantability*

Section 2-314 of the Uniform Commercial Code provides for the implied warranty of merchantability.[50] The key provision is section 2-314(2)(c): mer-

49. *See* Escola v. Coca Cola Bottling Co. of Fresno, 24 Cal. 2d 453, ____, 150 P.2d 436, 440-41 (1944) (Traynor, J., concurring).

50. (1) Unless excluded or modified (Section 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.

chantability of goods is usually thought of in terms of fitness for the "ordinary purposes for which such goods are used." While section 2-314(2) specifies a number of merchantability characteristics, the list is not exhaustive. Other implied warranties may arise "from course of dealing or usage of trade."[51] A usage of trade is a regular practice or method of dealing "in a place, vocation or trade," while a course of dealing is a "sequence of previous conduct between the parties to a particular transaction" which may fairly be regarded as establishing a "common basis of understanding" between them.[52] Moreover, to be merchantable, goods must "at least" meet the requirements of section 2-314(2); the inference is that merchantability may imply additional characteristics in appropriate circumstances.

Although it is not expressly stated in the section, the requirement of merchantability imposes a standard of strict liability on the merchant seller.[53] If he sells goods that are not merchantable, he is liable for breach of the implied warranty of merchantability regardless of whether he either knew or should have known of the deficiency in the goods.

The implied warranty of merchantability is implied by law from the sale of goods by a merchant.[54] The parties to the sale may exclude or limit the warranty by express agreement,[55] but if they do not then it applies without the necessity of the parties taking any special action.

The merchantability warranty by its terms applies to the sale of "goods" by a merchant. Goods are defined as anything which is movable at the time of identification to the contract, other than money in which the price is to be paid, investment securities and choses in action.[56] The term has essentially the same meaning as "product" or "chattel."

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(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 (Section 2-316) other implied warranties may arise from course of dealing or usage of trade.

U.C.C. § 2-314 (1978 offic. text).

51. U.C.C. § 2-314(3).
52. U.C.C. § 1-205(1)-(2).
53. *See* note 38 *supra*.
54. R. Hursh and H. Bailey, Amer. Law of Prod. Liab. 2d § 3.27 (1974); Annot., 83 A.L.R. 3d 694 (1978).
55. U.C.C. §§ 2-316, 2-718, 2-719 (1978 offic. text).
56. U.C.C. § 2-105(1) (1978 offic. text).

As already noted,[57] strict products liability whether in tort or under the merchantability warranty has been extended to transactions not involving either sales or goods. An important restriction on the applicability of this strict liability, however, is its limitation to sales by a "merchant." A merchant is defined as "a person who deals in goods of the kind" or holds himself out either directly or by means of an agent "as having knowledge or skill peculiar to the practices or goods involved in the transaction."[58] The term essentially refers to persons "engaged in the business" of selling a product or chattel, these persons also being the ones covered by the strict liability of sections 402A and 402B of the Second Restatement of Torts. As comment 3 of section 2-314 of the Code states: "A person making an isolated sale of goods is not a 'merchant' within the meaning of the full scope of this section and, thus, no warranty of merchantability would apply." A casual seller could, however, be liable for deceit or negligence in connection with the sale of goods, for breach of an express warranty, and also perhaps for breach of the implied warranty of fitness for a particular purpose.[59]

2. *Fitness for a Particular Purpose*

Section 2-315 of the Uniform Commercial Code provides for the implied warranty of fitness for a particular purpose.[60] This warranty and the warranty of merchantability are the two important implied warranties in connection with products liability.

The fitness warranty is intended to apply to particular purposes. As comment 2 to section 2-315 states, "it envisages a specific use by the buyer which is peculiar to the nature of his business" whereas ordinary purposes "are those envisaged in the concept of merchantability and go to uses which are customarily made of the goods." Thus, the comment continues, to be merchantable shoes should be fit "for the purpose of walking upon ordinary ground, but a seller may know that a particular pair was selected to be used for climbing mountains."

The courts, however, have also applied the implied warranty of fitness for a particular purpose to situations involving general purpose, or merchantability.[61] The overlap may be owing to the fact that the Uniform Sales Act, predecessor to the Uniform Commercial Code, limited the merchantability

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57. *See* § I.B. *supra.*

58. U.C.C. § 2-104(1) (1978 offic. text). *See* Lish v. Compton, 547 P.2d 223, 226 (Utah 1976) (reviewing cases to whether farmer who sells his crops is a merchant).

59. *See* text following note 65 *infra.*

60. 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.

U.C.C. § 2-315 (1978 offic. text).

61. *See, e.g.*, Stonebrink v. Highland Motors, Inc., 171 Or. 415, ____, 137 P.2d 986, 990 (1943); D. NOEL AND J. PHILLIPS, PRODUCTS LIABILITY IN A NUTSHELL 22-25 (1974) [hereinafter cited as NUTSHELL]. *But see* Annot., 83 A.L.R. 3d 669 (1978).

warranty to sales "by description," *i.e.* sales where the goods were not available for inspection.[62] The particular purpose warranty was expanded by judicial construction to fill the gap left in the merchantability warranty. Moreover, there can be many situations where a general purpose for one person will constitute a particular purpose for another, depending on the importance to the individual.

The implied warranty of fitness for a particular purpose resembles the express warranty, in that both may give rise to special expectations over and above those implied by law.[63] Both warranties also require proof of reliance on the part of the buyer, and this requirement should be more important as the expectation becomes more special.[64]

The buyer is entitled under section 2-315 to rely on the seller's skill and judgment in selecting goods for a particular purpose where the seller "at the time of contracting" has reason to know of such reliance. It is unclear whether an agreement modifying a contract would fit within the meaning of this "time of contracting" clause.[65]

In contrast to the implied warranty of merchantability, there is no requirement that the seller be a merchant, or one who generally deals in goods of the kind, in order for the implied warranty of fitness for a particular purpose to arise. Comment 4 to section 2-315 states: "Although normally the warranty will arise only where the seller is a merchant with the appropriate 'skill or judgment,' it can arise as to nonmerchants where this is justified by the particular circumstances." A pretense of knowledge[66] can clearly be assumed by sellers other than merchants, and the unknowledgeable buyer may well be "justified by the particular circumstances" in believing that a seller who has dealt with the goods possesses special skill or judgment regarding them.

The Uniform Sales Act excluded the implied warranty of fitness for a particular purpose where a product was sold "under its patent or other trade name." The Commercial Code has eliminated this exclusion. Comment 5 to section 2-315 states that "the existence of a patent or other trade name and the designation of the article by that name, or indeed in any other definite

62. Kirk v. Stineway Drug Store Co., 38 Ill. App. 2d 415, ___, 187 N.E.2d 307, 311 (1963); Kohn v. Ball, 36 Tenn. App. 281, ___, 254 S.W.2d 755, 758 (1952).

63. *See* Northern Plumbing Supply, Inc. v. Gates, 196 N.W.2d 70 (N.D. 1972); Annot., 83 A.L.R.3d 669 (1978).

64. Conversely, where the fitness warranty is essentially equated with the warranty of merchantability, the requirement of proof of reliance may not be very stringent. *See* Kirk v. Stineway Drug Store Co., 38 Ill. App. 2d 415, ___, 187 N.E.2d 307, 310-11 (1963).

65. *See* note 40 *supra* and accompanying text.

66. Indeed, a seller's pretense of special knowledge arising from his occupation may be a sufficient basis for treating him as a merchant, since a merchant is defined in the UCC as "a person who deals in goods of the kind *or otherwise by his occupation holds himself out as having knowledge or skill peculiar to the practices or goods involved*" (emphasis added). In this respect the definition of "merchant" under the UCC may be broader than that of a "seller engaged in the business of selling" a product under sections 402A and 402B of the Second Restatement of Torts. *See* RESTATEMENT (SECOND) OF TORTS § 402A, Comment *f*; § 402B, Comment *e* (1965).

manner," is only one factor to be considered in determining whether the buyer relied on the seller's skill and judgment to select a product for a particular purpose.

E. *Negligent Conduct*

1. *Manufacturers*

Negligent misrepresentation has been discussed previously.[67] A manufacturer may be guilty of negligence by many means other than misrepresentation, however. He may be negligent in failing to test or inspect his product, or in failing to do so adequately; in failing to select a competent supplier; in failing to warn, or to warn adequately, of the dangers associated with the use of his product; in failing to exercise due care in the manufacture or design of a product; in failing to install the product properly; and in failing to exercise due care in any aspect of the production or distribution process.[68] Not only is he expected to know and do what the competent manufacturer in the field would know and do, but he is also charged with knowing and applying any reasonably available scientific and technological knowledge relevant to the production and use of his product.[69]

The manufacturer, moreover, may be subject to a continuing duty of care after the product has left his hands. If for example after the product is marketed, he discovers a latent dangerous condition in the product, he is under a duty to make a reasonable effort to give warning of the danger to those using the product. What constitutes a reasonable effort in this context will vary with the circumstances. Where the danger is great, the effort that must be made will be correlatively great. If the manufacturer can reasonably warn the users personally, he is required to do so. Where personal warning is not feasible, for example because all users cannot be identified, some form of public notice as by newspaper, radio or television may be required.[70]

There are situations where a warning of a danger discovered after sale will be inadequate to fulfill the manufacturer's duty of care, at least as to unwarned persons. If it appears that the user probably will not heed the warning, the manufacturer may then be required to take other protective measures such as offering to correct the problem without charge.[71] This duty of correction is imposed by statute under the National Traffic and Motor Vehicle Safety Act,[72] and the duty has also been recognized at common law.[73]

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67. *See* § II.B *supra.*

68. *See* Noel, *Manufacturer's Negligence of Design or Directions For Use Of a Product*, 42 TENN. L. REV. 11 (1974).

69. See the related discussion of the relevant factors in determining feasibility of technological development for purposes of establishing OSHA standards, in Amer. Fed. of Labor v. Brennan, 530 F.2d 109, 120-21 (3d Cir. 1975).

70. *See* FRUMER & FRIEDMAN, *supra* note 38, § 8.02.

71. Balido v. Improved Machinery, Inc., 29 Cal. App. 3d 633, ____, 105 Cal. Rptr. 890, 901 (1973).

72. 15 U.S.C. § 1414 (1976).

73. *See* note 71 *supra.*

It seems particularly appropriate to impose a subsequent duty to warn or correct where the manufacturer is negligent in not discovering the danger during the manufacturing process. The duty is not limited to such situations, however. Even if he exercised all due care at the manufacturing stage, the manufacturer is still not absolved from exercising due care with regard to the product after it leaves his hands.[74]

The manufacturer's post-sale duty of care may take forms other than that of warning or repair. In *Heck v. Beryllium Corp.*[75] the defendant learned in 1950, as a result of advances in scientific knowledge, that the emissions from its beryllium plant were toxic. Because the emissions had occurred since 1939, the court found the defendant was under a duty to adhere to minimum emission standards after 1950 in order to minimize the continuing danger. Whatever a reasonable person would do under the circumstances will establish the duty of care, regardless of the presence or absence of care theretofore.

2. *Nonmanufacturing Suppliers*

The majority rule with regard to the duty of inspection and testing owed by a nonmanufacturing supplier is stated in section 402 of the Second Restatement of Torts:

> A seller of a chattel manufactured by a third person, who neither knows nor has reason to know that it is, or is likely to be, dangerous, is not liable in an action for negligence for harm caused by the dangerous character or condition of the chattel because of his failure to discover the danger by an inspection or test of the chattel before selling it.

The minority rule is said to be that such a supplier is under a duty to discover and disclose defects which can be found by inspection alone, as distinguished from dangers that are so concealed that mechanical or chemical tests are necessary to discover them.[76] These rules apply whether the seller is a retailer, a distributor, an assembler of component parts manufactured by another or any other in the chain of distribution who does not actually manufacture the defective product or product part.[77]

In actual practice there may not be a great deal of difference between the majority and minority positions. Section 402 of the Restatement relieves the nonmanufacturing supplier of any duty to inspect or test only when he "neither knows nor has reason to know" that the product is unsafe. He may be put on notice by a variety of means, as for example by customer complaints or by information supplied by the manufacturer or acquired indepen-

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74. HURSH & BAILEY, *supra* note 54, § 8.9.

75. 424 Pa. 140, 226 A.2d 87 (1966). Although *Heck* is a pollution case, its principle should apply equally to a product supplier in a comparable situation. For example, the supplier of a product that is discovered to be excessively toxic should have a duty to reduce the toxicity in subsequent production if warnings prove inadequate.

76. Kirk v. Stineway Drug Store Co., 38 Ill. App. 2d 415, ____, 187 N.E.2d 307, 313 (1963).

77. FRUMER & FRIEDMAN, *supra* note 38, §§ 18.03[1], 20.02; RESTATEMENT (SECOND) OF TORTS § 402, Comment *d.* (1965).

dently. If the manufacturer is not known to be reputable, then the nonmanufacturing supplier may have a duty to inspect.[78]

Moreover, the no-duty rule applies only where the supplier acts as a mere conduit of goods manufactured by another. If he installs the goods, he must use due care in doing so. This care requires reasonable inspection and testing in the installation.[79] Also, if the supplier undertakes to repair or inspect or test in any way, then he must do so with due care.[80]

An important exception to the general rule excusing the nonmanufacturing supplier from the duty to inspect or test is stated in section 400 of the Second Restatement of Torts: "One who puts out as his own product a chattel manufactured by another is subject to the same liability as though he were its manufacturer." Since the manufacturer has a duty to inspect and test, this section, when applicable, imposes a like duty on the nonmanufacturing supplier.[81]

Restatement section 400 clearly applies where the supplier puts out under his own name a product manufactured by another. Comment *d* to section 400 states that the section also applies "where the chattel appears to have been made particularly for the actor." Thus if a product manufactured by B is labeled "packed for A" and also carries A's widely known trademark, A will be held liable for B's failure to use ordinary care. "However, where the real manufacturer or packer is clearly and accurately identified on the label or other markings on the goods, and it is also clearly stated that another who is also named has nothing to do with the goods except to distribute or sell them, the latter does not put out such goods as his own."[82] Thus, whenever a distributor's name or other identifying mark appears on a product, or whenever the buyer is led by any other means, of which the distributor should reasonably be expected to know, to believe that the distributor is the manufacturer, section 400 will apply. The distributor can avoid this application only by making clear to the buyer (1) that he is not in fact the manufacturer, and (2) precisely who the manufacturer is.

F. *Strict Liability in Tort: Section 402A*

As late as 1960 strict products liability actions were limited almost entirely to suits for breach of express or implied warranty. Warranty actions were burdened with various contractual limitations, notably the require-

78. O'Donnell v. Asplundh Tree Expert Co., 13 N.J. 319, ____, 99 A.2d 577, 587 (1953).

79. FRUMER & FRIEDMAN, *supra* note 38, § 18.03[4].

80. *Id.* § 6.01[1] n.1.

81. Comment *b* to section 400 of the Restatement (Second) of Torts (1965) indicates that the liability to be imposed by that section is one of negligence. ("The rules which determine the liability of a manufacturer of a chattel are stated in §§ 394-398.") However, the section has also been used to impose strict liability on a supplier holding himself out as the manufacturer. Carter v. Joseph Bancroft & Sons Co., 360 F. Supp. 1103, 1106-08 (E.D. Pa. 1973); Pierce v. Liberty Furnace Co., 141 Ga. App. 175, ____, 223 S.E.2d 33, 36-37 (1977). This means of imposing strict liability could be very important if the retailer were not otherwise suable in strict tort or implied warranty, for example because of the "sealed container" doctrine (*see* § II.F.3. *infra*).

82. RESTATEMENT (SECOND) OF TORTS § 400, Comment *d* (1965).

ments of privity of contract, notice of breach and the ability to the seller to limit or disclaim his liability. In the mid-1960's a theory of implied strict products liability based in tort began to evolve judicially,[83] and today this theory has practically swept the field.[84] The rapidity and profound impact of this development equal or surpass in importance any other tort common law development in this country's history.

The most commonly adopted formulation of strict tort liability is that set forth in section 402A of the Restatement (Second) of Torts.[85] Comment *m* to this section states that a number of courts, seeking a theoretical basis for strict products liability, have resorted to warranty terminology. There is nothing in the section that prevents the use of such terminology, but "if this is done, it should be recognized and understood that the 'warranty' is a very different kind of warranty from those usually found in the sale of goods." The provisions of the Uniform Commercial Code do not apply; privity is immaterial; disclaimers and limitations of remedies are ineffective; notice of breach is not required. "In short," the comment concludes, " 'warranty' must be given a new and different meaning if it is used in connection with this section. It is much simpler to regard the liability here stated as merely one of strict liability in tort."

It is important to bear in mind that section 402A as promulgated by the American Law Institute is not law unless and until it is adopted by the courts or the legislature of a jurisdiction as the law of that jurisdiction.[86] When such an adoption occurs, it may not track the exact language of 402A, nor embody all the Institute's comments to that section. One of the most common departures is to extend the benefits of the section to bystanders as well as to users and consumers.[87] A few courts have adopted strict tort without requiring proof

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83. The leading case adopting this theory of recovery is Greenman v. Yuba Power Products, Inc., 50 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962).

84. *See* [1977] PROD. LIAB. REP. (CCH) ¶¶ 4060, 4070.

85. (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 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 brought the product from or entered into any contractual relation with the seller.

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

86. Most states have adopted strict products liability by common law development. *See* [1977] PROD. LIAB. REP. (CCH) ¶ 4070. However, several have done so by legislation. Arkansas, Maine, and South Carolina have in essence codified section 402A of the Second Restatement of Torts: ARK. STAT. ANN. § 85-2-318.2 (1977); ME. REV. STATS. ANN. tit. 14, § 221 (1978); S.C. CODE §§ 66-371 to -373 (Cum. Supp. 1976). For other statutory approaches, see Swartz v. General Motors Corp., 378 N.E.2d 174 (Mass. 1978); 5D BENDER'S UNIF. COMM. CODE SERV. T-34.2 to T-34.6 (1977).

87. *See* Noel, *Defective Products: Extension of Strict Liability to Bystanders*, 38 TENN. L.

of unreasonable danger,[88] or alternatively without requiring proof of a defect.[89] Some have extended the doctrine to cover nonphysical damage,[90] and others have restricted it in cases where physical damage to property or to the product itself is involved.[91] A handful of jurisdictions apply the doctrine only to manufacturers.[92] For the most part, however, the section and its accompanying comments accurately reflect the doctrine of strict tort liability in its current form in this country.

A primary characteristic of strict liability, as distinguished from negligence, is that the plaintiff who is injured by an unreasonably dangerous product is not required to show that the supplier of the product either knew or should have known of the danger. This distinction can be very important where manufacturing defects are involved, since it can be quite difficult to show that the manufacturer knew or should have known that a single product in a mass manufacturing process had a latent defect when manufactured.[93] The distinction is also very important with regard to any type of defect where nonmanufacturing suppliers such as retailers and distributors are involved, since they seldom know or have reason to know of a defect in the products they sell and they have a limited duty of care with regard to the product.[94] The retailer or distributor, if held liable, will usually have an action over against his supplier and thus liability will ultimately rest with the manufacturer if the defect can be traced to him.[95]

Strict liability in tort, as well as in implied warranty, retains the doctrines of foreseeability and proximate cause that are so characteristic of negligence.[96] Questions of plaintiff and third-party misconduct, misuse and altera-

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REV. 1 (1970). The Restatement takes no position on whether bystanders should be permitted to recover in strict tort. RESTATEMENT (SECOND) OF TORTS § 402A, Caveat and Comment *o* (1965).

88. *See* note 20 *supra*.

89. Seattle-First Nat. Bank v. Tabert, 86 Wash. 2d 145, ____, 542 P.2d 774, 779 (1975); *see* Montgomery and Owen, *supra* note 20, at 820-24, 841-42.

90. Gauthier v. Mayo, 77 Mich. App. 513, 258 N.W.2d 748 (1977); Santor v. A & M Karagheusiau, Inc., 44 N.J. 52, ____, 207 A.2d 305, 311-13 (1965). *See* Russell v. Ford Motor Co., 575 P.2d 1383, 1387 (Or. 1978).

91. Mid Continent Aircraft Corp. v. Curry County Spraying Service, Inc., 553 S.W.2d 935, 939-40 (Tex. Civ. App. 1977).

92. This is the effect of applying the "sealed-container" doctrine. *See* § II.F.3. *infra*. *See also* GA. CODE ANN. § 105-106 (1968); 1978 Tenn. Pub. Acts ch. 703, § 6.

93. *See, e.g.*, Pabon v. Hackensack Auto Sales, Inc., 63 N.J. Super. 476, 164 A.2d 773, 783 (1960) (liability in implied warranty for defective ball bearing, but no negligence shown).

94. *See* § II.E.1. *supra*.

95. *See* § V.I. *infra*.

96. *See* LeBouef v. Goodyear Tire & Rubber Co., 451 F. Supp. 253 (W.D. La. 1978); Williams v. RCA Corp., 376 N.E.2d 37, 38 (Ill. App. 1978). One authority says that "the manufacturer's liability in strict tort does not rest upon the normal negligence rules of foreseeability." FRUMER & FRIEDMAN, *supra* note 38, § 16A [4][f][vi] 3B-146. Apparently the authors are referring to the lack of necessity of showing that the manufacturer knows or should know of the latent characteristics of his product, as opposed to the necessity of showing that the manufacturer should reasonably foresee certain uses of his product. *See* Newman v. Utility Trailer & Equip. Co., 278 Or. 395, ____, 564 P.2d 674, 675-76 (1977).

tion of the product are of central concern in both strict liability and negligence.[97]

1. *Food and Containers*

There used to be a division of authority with regard to whether implied warranties applied to the sale of food in a restaurant, or to the container in which a product is sold.[98] It never made much sense to hold that supplying food constituted a service rather than a sale of goods, or to hold that the container was not part of a product, and thus to deny liability in implied warranty. These aberrations have apparently disappeared in present-day law, and both implied warranty and strict tort apply to food sold in restaurants and to product containers.[99]

2. *Wrongful Death*

A few courts hold that a claim of strict liability will not lie in an action for wrongful death.[100] The reason for this result turns on the language of the applicable wrongful death or survival statute, which speaks in terms of a claim based on the fault or wrongdoing of the tortfeasor. Such a result is by no means required, and the majority of courts recognize a wrongful death claim in strict liability.[101] Any tort may be viewed as a wrong, with historical if not analytical justification,[102] whether based on intentional misconduct, negligence or strict liability. Moreover, there is a modern tendency to recognize that an action for wrongful death need not be entirely statutorily based, but can have common law origins as well.[103] This sensible approach can be extended where necessary to provide for a common law strict liability claim for wrongful death.

3. *The Sealed Container Doctrine*

Some courts, while adopting the doctrine of strict products liability, have refused to extend it to retailers and other nonmanufacturing suppliers who sell products in sealed containers.[104] The rationale is that the supplier has no

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97. *See* § V.A.-B. *infra*.

98. PROSSER, *supra* note 2, at 637-38.

99. *See* Shaffer v. Victoria Station, 588 P.2d 233 (Wash. 1978); U.C.C. §§ 2-314(1), 2-314(2)(e) (1978 offic. text); FRUMER & FRIEDMAN, *supra* note 38, § 25.04; HURSH & BAILEY, *supra* note 54, §§ 4:26, 4:29.

100. Most of the wrongful death suits denying recovery in strict liability have involved claims for breach of implied warranty. FRUMER & FRIEDMAN, *supra* note 38, § 42. Georgia, however, has denied recovery for wrongful death under its statutorily created strict tort basis of suit against manufacturers of new goods. Ford Motor Co. v. Carter, 238 S.E.2d 361 (Ga. 1977).

101. FRUMER & FRIEDMAN, *supra* note 38, § 42.

102. F. HARPER AND F. JAMES, THE LAW OF TORTS § 14.1 (1956).

103. Moragne v. States Marine Lines, 398 U.S. 375, 388-89 (1970) (admiralty); Gaudette v. Webb, 284 N.E.2d 222, 229 (Mass. 1972).

104. Walker v. Decora, Inc., 225 Tenn. 504, ____, 471 S.W.2d 778, 783 (1971) (strict tort). The rule has also been applied to suits based on breach of implied warranty. *See* FRUMER &

opportunity to inspect a product in a sealed container, and the purchaser does not rely on the supplier to furnish a safe product when the supplier cannot inspect it.

The sealed container doctrine logically cannot be restricted just to products sold in sealed containers.[105] It should apply equally to any product containing a latent defect, whether or not sold in a sealed container, since the seller cannot be expected to discover the defect and the buyer cannot justifiably rely on the seller's ability to discover.

Insofar as the doctrine is based on the seller's inability to inspect, it confuses negligence with strict liability. No special reliance is required in order to recover in strict liability under section 402A, nor is it required for recovery for breach of the implied warranty of merchantability. Even if it were required, in all probability the average consumer relies substantially on the retailer and other nonmanufacturing suppliers to select and furnish safe products.

The sealed container doctrine might be justified on the policy basis that since the manufacturer is the one ultimately at fault, the plaintiff should be required to go against him in the first place on any implied strict liability claim, and thus save the retailer the trouble and expense of being involved in the litigation. Given present day long-arm statutes,[106] the nonresident manufacturer can usually be served in the jurisdiction where the injury occurs.

This analysis does not take all relevant factors into consideration, however. In some cases the manufacturer may be defunct or judgment proof. In others the defect may not be traceable to the date of manufacture. Also, the manufacturer may not be subject to service of process by long-arm statute in plaintiff's jurisdiction.

The retailer as well as the manufacturer is an efficient loss spreader, and is in a superior position over the consumer to take protective measures for the prevention of future losses. While the average retailer may not be as economically substantial as the average manufacturer, no clear line can be drawn on this basis. In any event, strict liability is not usually imposed on the basis of size, but rather as an incident of the cost of doing business.[107] Most retailers as well as most manufacturers are large enough to afford prod-

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FRIEDMAN, *supra* note 38, § 19.03[d][c]. However, there are decisions holding *contra*. *See, e.g.*, R. Clinton Constr. Co. v. Bryant & Reeves, Inc., 442 F. Supp. 838 (N.D. Miss. 1977); Pierce v. Liberty Furnit. Co., 233 S.E.2d 33, 35 (Ga. App. 1977). *See generally* Noel, *Products Liability of Retailers and Manufacturers in Tennessee*, 32 TENN. L. REV. 207, 215-19 (1965); 39 TENN. L. REV. 525, 525-34 (1972).

105. The doctrine was applied to the retail seller of an automobile in Wood v. Hub Motor Co., 110 Ga. App. 101, 137 S.E.2d 674 (1964). *But see* Manning v. Altec, 488 F.2d 127, 129 (6th Cir. 1973).

106. *See* § V.G. *infra*.

107. *But see* Smith v. Nick's Catering Service, 549 F.2d 1194 (8th Cir. 1977), holding that strict liability does not apply to a lessor who is engaged in leasing products only on a limited basis (defendant leased only 20 trucks to food vendors).

ucts liability insurance coverage. Where they are not, they should still be unable to escape liability as a cost of doing business.

Even when the sealed container doctrine is applied, there are several exceptions which may cause strict liability to be imposed. If the seller makes an express warranty, or an implied warranty of fitness for a particular purpose, he can be held strictly liable.[108] He may be held liable in negligence per se for the violation of a statutory duty, as for example a pure food law.[109] Section 400 of the Second Restatement of Torts has been construed as imposing the manufacturer's strict liability on a retailer who sells another's product as his own.[110]

G. *The Overlapping Theories*

As can be seen from the foregoing discussion, there are a number of products liability theories on which a plaintiff can base his claim. The plaintiff is generally permitted to assert all of these theories in the same suit as alternative bases for recovery. Each theory may carry with it different elements of proof and different defenses. The possibility of jury confusion is evident.

Yet there seems to be no ready way to consolidate or reduce the bases of recovery, since each serves a separate function in the field of products litigation. If the defendant is guilty of intentional misconduct, the plaintiff should certainly be able to show this, and to recover punitive damages when appropriate. He should not be denied the right to show negligence, since the presence of fault may weigh critically in plaintiff's behalf on close questions of fact. Strict liability is the hallmark of the modern developing law, and it is probably here to stay. Finally, where the defendant, either with or without fault, has made to the plaintiff some representation regarding the defendant's goods over and above ordinary expectations, the plaintiff should be able to recover if he relies on the representation to his detriment.

Within the field of strict products liability itself, there is a fair amount of overlapping that may need sorting out. As already noted,[111] the relation between express warranty and misrepresentation in strict tort is not clear. It also appears that the implied warranty of merchantability overlaps at least in part with express warranty, since Code section 2-314(2)(f) provides that to be merchantable goods must "conform to the promises or affirmations of fact made on the container or label if any." Such promises or affirmations may also constitute express warranties. The warranty of fitness for a particular purpose overlaps with the warranty of merchantability when courts construe a particular purpose to be the same as a general purpose.[112] This overlap

108. Posteli v. Boykin Tool & Supply Co., 86 Ga. App. 400, 71 S.E.2d 783 (1952) (express warranty); Maze v. Bush Bros. & Co., PROD. LIAB. REP. (CCH) ¶ 6646 (Tenn. App. 1971) (implied warranty of fitness for a particular purpose).

109. This suggestion is made by Noel, note 104 *supra*, at 217.

110. *See* note 81 *supra*.

111. *See* text accompanying notes 48-50 *supra*.

112. Annot., 83 A.L.R. 3d 656 (1978).

is expecially evident when proof of the element of reliance is attenuated, as it sometimes is, for the warranty of fitness for a particular purpose. The implied warranty of merchantability and strict liability in tort under section 402A overlap to a greater or lesser extent, depending on the degree to which contractual defenses are eliminated in the warranty actions.[113]

These various overlaps are in large part justifiable in policy terms. Express warranty may appropriately apply where the bargain is freely negotiated between equal bargaining parties. If the plaintiff is not a free and equal bargainer, he should have his choice of suing on express warranty or tortious misrepresentation, or on both. Tort law normally gives a plaintiff the right to sue on as many theories as his proof will support.[114] Representations on products containers and labels serve to establish ordinary expectations and therefore go toward determining merchantability as well as express warranties.[115] The requirements of merchantability, moreover, may fulfill a particular or special purpose of some products users, and where this occurs the user should be able to rely on the supplier's special skill to select a product for this purpose. With regard to merchantability and strict tort under section 402A, it is evident that the latter constitutes a major evolutionary development out of the former. If a court chooses to call the evolutionary result by the name of warranty rather than strict tort, it may be no more than the same concept by another name.

It has been contended that the Uniform Commerical Code preempts the field of strict products liability, and that courts have been usurping the role of the legislature in developing the common law doctrine of strict tort liability.[116] Such a contention is supportable at most only by negative inference, and even then there are fairly persuasive conflicting inferences. Why not as well conclude that the Code preempts products liability in negligence? If the legislatures really intended preemption, they could certainly speak more clearly to the point as they have done, for example, with reference to the supply of impure blood.

Some courts have taken the position that only the Code applies to products claims for economic loss alone, to the exclusion of the section 402A type of strict tort liability.[117] This position is not based on a finding of legislative preemption, but rather on a policy determination that economic loss claims should be left exclusively within Code control. It is precisely to policy deter-

113. The definition of "merchant" for implied warranty purposes may be broader than that of "dealer" for purposes of strict tort. *See* note 66 *supra*.

114. Stueve v. Amer. Honda Motors Co., Inc., 457 F. Supp. 740, 751 (D. Kan. 1978); Annot., 52 A.L.R.3d 101 (1973). *But see* Basko v. Sterling Drug, Inc., 416 F.2d 417, 427 (2d Cir. 1969); Masi v. R.A. Jones Co., 163 N.J. Super. 292, 394 A.2d 888 (1978) (court is permitted in some cases to charge on strict liability and not on negligence, to avoid jury confusion).

115. *See* Shapo, *A Representational Theory of Consumer Protection: Doctrine, Function and Legal Liability for Product Disappointment*, 60 VA. L. REV. 1109 (1974).

116. Dickerson, *Products Liability: Dean Wade and the Constitutionality of Section 402A*, 44 TENN. L. REV. 205 (1977).

117. *See* review of cases in Alfred N. Koplin & Co. v. Chrysler Corp., 364 N.E.2d 100 (Ill. App. 1977); Nobility Homes of Texas v. Shivers, 557 S.W.2d 77 (Tex. 1977).

minations that the profound growth of the section 402A doctrine is attributable. Absent clear legislative preemption, the courts as interpreters of the common law owe a primary duty to seek out and implement policies in support of felt basic needs of society.

III. The Varieties of Defect

A. *General Considerations*

The threshold consideration in a products claim usually is whether or not it can be proven that the product was defective or unreasonably dangerous when it left the supplier's hands. Product defects are now typically divided into three categories: manufacturing or production defects; design defects; and defects attributable to the absence of insufficiency of warnings and instructions for use of the product.[118]

A fourth category, product misrepresentation, could be viewed as a defect; but it seems more appropriate to consider misrepresentation as giving rise to special expectations, and to analyze product defectiveness in terms of ordinary expectations which everyone is entitled to have regarding a product.[119] Defectiveness, defined in terms of unreasonable danger, looks to a standard of normality.

However, supplier representations in the form of advertising, labeling, sales brochures and the like constantly interact with the product itself to determine ordinary consumer expectations.[120] The product and any representations which accompany it cannot effectively be separated, nor should they be. If an olive appears to be pitted, one can ordinarily expect that it is pitted.[121] If mixed nuts in a glass jar appear shelled, one should reasonably be able to rely on that appearance.[122] An attractively wrapped candy bar gives a reasonable appearance of wholesomeness.[123] Advertising and puffing can be expected to lull the normal user into a false sense of security.[124] Advertisements puffing the use of defendant's product, even though unseen by the plaintiff prior to his injury, may be relevant in determining whether the product is unfit for its intended uses.[125]

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118. Harper and James view failure to warn as a kind of design defect, Harper & James, *supra* note 102, § 28.7. Since a manufacturer's decision of whether or not to warn about foreseeable uses of his product may be a conscious decision, or at least it will usually affect a whole line of products (*see* § III.C. *infra*), it can be considered a design decision.

119. *See* § I.C. *supra.*

120. *See* note 115 *supra* and accompanying text.

121. Hochberg v. O'Donnell's Restaurant, Inc., 272 A.2d 846 (D.C. App. 1971).

122. *But see* Coffer v. Standard Brands, Inc., 226 S.E.2d 534, 537 (N.C. App. 1976).

123. Kassouf v. Lee Bros., Inc., 209 Cal. App. 2d 568, ___, 26 Cal. Rptr. 276, 278 (1962) ("[t]he warranty imposed by law . . . and the efficiency in modern processes of manufacturing, packaging and merchandizing of such food products as candy bars, has long since removed responsibility, if there ever was any, of a purchaser to inspect them before eating.").

124. Maize v. Atlantic Refining Co., 352 Pa. 51, ___, 41 A.2d 850, 852 (1945) (the words "safety-kleen" were so conspicuously displayed that the user was lulled into false sense of security in that the fumes from the product were highly toxic).

125. Sterner v. U.S. Plywood-Champion Paper, Inc., 519 F.2d 1352, 1354 (8th Cir. 1975).

Just as the product and its accompanying representations cannot be neatly separated for purposes of determining defectiveness, so also the three basic categories of defect mentioned above cannot always be clearly distinguished. The characteristic of a design is conscious planning, as the word design itself denotes, and yet design defects may occur as the result of inadvertence in the planning process as well as by conscious plan.[126] Conversely, a manufacturer may by design adopt a method of quality control which he knows will not be as effective as some more costly or cumbersome method would be, recognizing that as a result of this choice there will be a greater number of production defects.[127] An otherwise defectively designed or manufactured product may be made reasonably safe by an adequate instruction or warning of the danger.[128]

Nonetheless, the three categories of manufacturing, design and warning defects are useful tools for analyzing the law of products liability. At their extremes they identify three primary characteristics associated with acceptable product marketing. The fact that they meld together at their points of contact presents no phenomenon in products liability different from that in most related areas of the law.

In determining defectiveness, it is often necessary to consider the obviousness of the danger and to gauge the extent to which that danger is a matter of common knowledge. A well-known product danger may not be unreasonable, at least where the product serves a useful function and cannot be made safer without destroying or substantially curtailing that function. If a judgment is made that the risk is worth it, the product may be described as unavoidably unsafe.

It may also be necessary in deciding the issue of defectiveness to determine how long a product can reasonably be expected to last. There are related questions concerning the foreseeability of misuse and alteration of products. Even without misuse or conscious alteration, however, every product is expected to wear out sometime. But if it gives way before that time, it may be defective.

The varieties of product defect are related to, but different from, the theories of recovery. If misrepresentation is treated as a form of defect, then the concepts of defectiveness and recovery theories overlap at this point. Viewed in terms of ordinary expectations, however, defectiveness determines the reasonably expectable quality of a product. The theories of recovery, on the other hand, focus on the kinds of conduct for which the defendant may

126. *See* Phillips, *The Standard For Determining Defectiveness in Products Liability*, 46 CIN. L. REV. 101, 103-05 (1977) [hereinafter cited as Phillips-CINCINNATI].

127. For example, a blood bank might decide to use purchased rather than donated blood because of the greater accessibility of the former, even though the risk that purchased blood will be contaminated with hepatitis B antigen is estimated to be 12-15 times greater than that for donated blood. TASWELL, HEPATITIS AND BLOOD TRANSFUSIONS 271 (1972).

128. Chappuis v. Sears Roebuck and Co., 358 So. 2d 926, 930 (La. 1978); Phillips-CINCINNATI, note 126 *supra*, at 106-07. *But see* Embry v. General Motors Corp., 565 P.2d 1294, 1297 (Ariz. App. 1977) (failure to warn may be used as a basis for recovery in strict liability only when the product is faultlessly made).

be held liable. Expectable product performance nevertheless remains closely related to acceptable supplier conduct, since the expectations determine what conduct is acceptable.

The ordinary-expectations definition of unreasonable danger or defectiveness may be undesirable where obvious defects are concerned. In *Stenberg v. Beatrice Foods Co.*,[129] the court held it was error to charge the jury that unreasonable danger could be defined either as (1) "dangerous to an extent beyond that which would be contemplated by the ordinary consumer" or (2) "assuming that the defendant had knowledge of the condition of the product, would the defendant then have been acting unreasonably in placing it on the market?" Giving both charges prejudicially confuses the jury. Moreover, the first charge should not be given at all when the danger is open and obvious, since the obvious danger "could be seen" and therefore "could be contemplated" but may nevertheless be unreasonably dangerous.[130]

B. *The Manufacturing or Production Defect*

A defect in the manufacturing or production process usually occurs because of insufficient quality control. Metal with excessive porosity, an irregular grain or the like may have slipped through the assembly line.[131] A foreign ingredient may be left in canned or packed food—a burr in canned peas,[132] a piece of metal in canned milk[133] or the proverbial mouse in the coke bottle.[134] A continual production problem involves the solf drink bottle that explodes as a result of excessive carbonation, damage to the bottle or weak glass structure.[135]

In all production defect cases the suggestion seems to be that the manufacturer must have been negligent. If the workers had been diligent, one is inclined to think that the defective piece of metal or glass or that the foreign ingredient in the food would not have escaped attention. Indeed, the doctrine of res ipsa loquitur has been applied in such cases on the assumption that a manufacturing defect ordinarily does not occur in the absence of negligence.[136]

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129. 576 P.2d 725 (Mont. 1976). The inadequacies of the consumer expectations test are examined in A. WEINSTEIN, A. TWERSKI, H. PIEHLER, & W. DONAHER, PRODUCTS LIABILITY AND THE REASONABLY SAFE PRODUCT 46-47 (1978) [hereinafter cited as REASONABLY SAFE PRODUCT]. *See also* note 21 *supra*.

130. *Cf.* Coty v. United States Slicing Mach. Co., 373 N.E.2d 1371 (Ill. App. 1978), holding that there can be no assumption of risk with regard to the very danger that the defendant is required to guard against; *accord* Bexiga v. Havir Mfg. Co., 60 N.J. 402, 290 A.2d 281 (1972).

131. Parker v. Ford Motor Co., 296 S.W.2d 35 (Mo. 1956).

132. Athens Canning Co. v. Ballard, 365 S.W.2d 369 (Tex. Ct. App. 1963).

133. Mushatt v. The Page Milk Co., 262 So. 2d 520 (La. App. 1972).

134. Shosone Coca-Cola Bottling Co. v. Dolinski, 82 Nev. 439, 420 P.2d 855 (1966).

The "rats of Hamlin were as nought in comparison with that horde of mice which has sought refreshment within Coca-Cola bottles and died of a happy surfeit." Bishop, *Trouble in a Bottle*, 16 BAYLOR L. REV. 337, 354 (1964).

135. NOEL & PHILLIPS, *supra* note 4, at 374-76.

136. Escola v. Coca Cola Bottling Co. of Fresno, 24 Cal. 2d 453, ____, 150 P.2d 436, 438 (1944).

Negligence may not always be present, however, since existing technology may not permit discovery of latent defects in some instances.[137] Alternatively, more thorough testing or inspection could be prohibitively expensive or could result in substantial or complete destruction of the product's utility.[138] In such situations the supplier can nevertheless be held strictly liable unless it is determined that the product is marketable as an unavoidably unsafe product.

Aside from the question of unavoidable unsafeness, determining defectiveness frequently presents no great difficulty in these cases. This is because societal expectations are fairly well established with regard to such defects, and a ready gauge of acceptability exists by reference to like products that are nondefective.[139] No one need tell us that a worm in a can of peas makes the peas defective.

The issue is not always so simple. All metals, for example, contain flaws or irregularities of some size, and the problem is to decide when the size is impermissibly large.[140] Here, standards of the industry may control, unless expert testimony establishes the feasibility of reducing either the size or the recurrence of such irregularities below that obtained by industry practice.

Often the plaintiff's difficulty is in proving the manufacturing defect existed when the product left the supplier's hands.[141] A bottle may have been damaged after it left the supplier's control or metal may have fatigued from overuse or misuse. Where the defect is a discrete ingredient in a sealed container, on the other hand, the problem of tracing it to the supplier is reduced to showing that it was in the container when opened.

C. *Defective Design*

A design defect is usually described as one affecting a whole line of products and as one resulting from a conscious choice or plan of the manufacturer based on trade-offs among competing factors such as safety, utility, attractiveness and cost.[142] The element of conscious choice may not always be present, however, for the manufacturer may simply overlook a safety consideration in designing his product. Questions of foreseeable use of the product, moreover, frequently involve a failure to anticipate the danger rather than a conscious decision to run the risk. Therefore the major difference between manufacturing and design defects in some instances may be that the

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137. *See, e.g.*, Pabon v. Hackensack Auto Sales, Inc., 63 N.J. Super. 476, ____, 164 A.2d 773, 783-84 (1960).

138. *See* Cheli v. Cudahy Bros., 267 Mich. 690, ____, 255 N.W. 414, 415 (1934).

139. *See* Phillips, *supra* note 126, at 104-05.

140. Weinstein, Twerski, Piehler & Donaher, *Products Liability: An Interaction of Law and Technology*, 12 Duq. L. Rev. 425, 430-33 (1974).

141. *See* § IV.B *infra*.

142. Hagans v. Oliver Mach. Co., 576 F.2d 97, 99-100 (5th Cir. 1978); Jeng v. Witters, 452 F. Supp. 1349, 1356 (M.D. Pa. 1978); Caterpillar Tractor Co. v. Gonzales, 562 S.W.2d 573, 578 (Tex. Ct. Ap. 1978); Metal Window Products Co. v. Magnusen, 485 S.W.2d 355, 359-60 (Tex. Ct. App. 1972).

former occurs only in isolated products while the latter affects the whole line to which the design applies.

Some courts and commentators have shown a reluctance to submit questions of design defect to judicial determination.[143] That reluctance may arise because of the far-reaching effects of a determination of design defectiveness—where a whole product line is found wanting—or it may reflect a concern about permitting a lay judge or jury to review the choices of the design expert. Such review, it is sometimes contended, is better left to the legislatures.

Clearly the legislatures have not preempted the design defect area, however.[144] The fact that many products may be affected by a defective design determination cuts the other way, since a larger number of defective products poses a much greater danger than a single defective product.

A standard for judging design defectiveness frequently is furnished by comparison with like products.[145] If another manufacturer makes a similar product with a safer design, this is fairly persuasive proof that such a design is feasible. Even where there is no safer design in use, an expert may be able to testify to its feasibility.[146] A whole industry may lag in its design development, as well as in its safety practices. In some instances design shortcomings will be evident as a matter of common knowledge, without the introduction of expert testimony.[147] Unlike the manufacturing defect, the design defect, if established, is usually easy to trace to the date of manufacture since the design of a product remains constant unless the product is substantially altered after manufacture.

Some courts have said that where design defects are involved, there is no difference between negligence and strict liability.[148] This may be true for the manufacturer, since he is held to the knowledge of an expert with regard to the feasibility of a safer design.[149] It is not true for the retailer or other nonmanufacturing distributor, because such suppliers are not held to the same standard of care as the manufacturer.[150] Nevertheless, if a design defect is found in a product, the retailer or other distributor can be held strictly

143. *See* Owens v. Allis-Chalmers Corp., 268 N.W.2d 291 (Mich. App. 1978); Henderson, *Judicial Review of Manufacturers' Conscious Design Choices: The Limits of Adjudication*, 73 COLUM. L. REV. 1531 (1973); Epstein, *Products Liability: The Search For The Middle Ground*, 56 N.C.L. REV. 643 (1978).

144. Roberts v. May, 583 P.2d 305 (Colo. App. 1978).

145. Micallef v. Miehle Co., 39 N.Y.2d 376, 348 N.E.2d 571 (1976).

146. Turner v. General Motors Corp., 514 S.W.2d 497 (Tex. Ct. App. 1974), *rev'd on other grounds*, General Motors Corp. v. Turner, 567 S.W.2d 812 (Tex. Ct. App. 1978).

147. Lynd v. Rockwell Mfg. Co., 554 P.2d 1000, 1005 (Or. 1976); Bernal v. Amer. Honda Motor Co., 553 P.2d 107, 111 (Wash. 1976).

148. *See, e.g.*, Jones v. Hutchinson Mfg. Co., 502 S.W.2d 66, 69-70 (Ky. 1973); Volkswagen of America, Inc. v. Young, 272 Md. 201, ____, 321 A.2d 737, 745 (1974).

149. FRUMER & FRIEDMAN, *supra* note 38, § 7.01[4]; *but cf.* Back v. The Wickes Corp., 378 N.E.2d 964, 971 (Mass. 1978) (manufacturer not held to standard of expert, but only to "the standard of the ordinary, reasonably prudent manufacturer in like circumstances").

150. *See* § II.E.1. *supra*.

liable.[151] The manufacturer's ability is used as the standard for judging other suppliers, although it is not necessary to show these suppliers actually have that ability.

For purposes of determining design defect, a standard of feasibility is used.[152] This standard differs from that used in manufacturing or production defect cases, where, except for the unavoidably-unsafe exception, the manufacturer's ability to eliminate the defect is immaterial.[153] Probably a stricter standard is employed for production defects because societal expectations of product performance are fairly well established by reference to the norm of the average nondefective product. In the case of design defects, expectations as to product performance may often not be settled and so the method for making the determination is by reference to the feasibility of a safer design.

Feasibility is determined by weighing the likelihood and gravity of harm against the cost of prevention.[154] This is the same standard used in determining negligence.[155] Cost includes questions of the economic and technological reasonableness of change, and also the relative utility of the product with and without change.

Design defects occur in many varieties. One of the most common, particularly for industrial machinery, is the absence or inadequacy of safety devices to protect against dangerous moving parts in the machine.[156] There may be a defect in formula, whether in the manufacture of drugs or other products.[157] A design defect may also result in a product giving way in an unexpectedly dangerous manner,[158] or it may cause unreasonably dangerous side effects.[159] Sometimes the design does not protect adequately against the danger it is supposed to prevent. A football helmet[160] or sports glasses[161] may not provide adequate protection against expectable blows. More commonly, the defective design does not adequately protect against unintended but foreseeable risks of injury.[162] Most courts have no hesitancy in submitting these questions of defective design to the jury where the plaintiff's evidence establishes a prima facie case.

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151. Midgley v. S.S. Kresge Co., 55 Cal. App. 3d 67, ____, 127 Cal. Rptr. 217, 219 (1976).

152. Jeng v. Witters, 452 F. Supp. 1349, 1359 (M.D. Pa. 1978); Wilson v. Piper Aircraft Corp., 577 P.2d 1322, 1327 (Or. 1978).

153. *See* notes 137-38 *supra* and accompanying text.

154. Roach v. Kononen, 525 P.2d 125, 128 (Or. 1974).

155. *Id. See* The T. J. Hooper, 60 F.2d 737 (2d Cir. 1932).

156. *See* Gordon v. Niagara Mach. & Tool Works, 516 F.2d 419 (5th Cir. 1978).

157. *See* Ebers v. Gen. Chem. Co., 310 Mich. 261, ____, 17 N.W.2d 176, 180 (1945); Chamberlain, *The Diminishing Role of Negligence in Manufacturers' Liability for Unavoidably Unsafe Drugs and Cosmetics*, 9 ST. MARY'S L.J. 102 (1977).

158. Goullon v. Ford Motor Co., 44 F.2d 310 (6th Cir. 1930).

159. *See* note 157 *supra*.

160. Byrns v. Riddel, Inc., 550 P.2d 1065 (Ariz. 1976).

161. Filler v. Raytex Corp., 435 F.2d 336 (7th Cir. 1970).

162. Frericks v. General Motors Corp., 274 Md. 288, 336 A.2d 118 (1975).

1. *The Crashworthiness Issue*

The courts are divided on whether the issue of crashworthiness is litigable, but the overwhelming trend seems to be to submit this issue to the factfinder.[163] Usually, though not always,[164] crashworthiness presents a question of defective design. Crashworthiness is a term used to describe the capability of a product to minimize damages from an accident caused by an instrumentality other than the product itself. The cases often involve collisions with dangerous interior surfaces of automobiles, but they are not limited to this type of case. They may for example involve a defectively designed gas tank that explodes in a collision,[165] a car roof that comes off in an accident ejecting the passengers[166] or a concrete pole that breaks on slight impact.[167] They can include any product. Although they are sometimes referred to as "second-collision" cases, the product-related injury need not occur as the result of a collision. The injury can result from fire, water damage, suffocation or in any way that a product causes injury.[168] The injury, moreover, may occur contemporaneously with the original accident-causing event, rather than at a secondary point in time.[169]

Courts that reject recovery on a crashworthiness theory do so because they conclude that involvement of products in accidents caused by an instrumentality other than the product itself is an unforeseeable event.[170] This conclusion presents no real explanation. It ignores reality to deny liability for underlying but unstated policy reasons.

A policy ground is occasionally stated in terms of a reluctance to involve the judicial process in design litigation.[171] If this is the reason, then these

163. *See* the list of cases in Huff v. White Motor Corp., 565 F.2d 104 (7th Cir. 1977) (overruling Evans v. General Motors Corp., 359 F.2d 822 (7th Cir.), *cert. denied*, 385 U.S. 836 (1966)). The court in Stueve v. Amer. Honda Motors Co., 457 F. Supp. 740, 759 (D. Kan. 1978) found "thirty-six jurisdictions which have adopted this 'crashworthiness' standard in one form or another," and predicted that Kansas would follow suit.

164. Cronin v. J.B.E. Olson Corp., 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972), for example, although a crashworthiness case, may involve a manufacturing or production defect rather than a design defect. *See* Barker v. Lull Eng'r. Co., 20 Cal. 3d 413, ____, 573 P.2d 443, 450-51, 143 Cal. Rptr. 225, 232-33 (1978).

165. Buehler v. Whalen, 374 N.E.2d 460 (Ill. 1978).

166. Brandenburger v. Toyota Motor Sales, 162 Mont. 506, 513 P.2d 268 (1973).

167. 21 A.T.L.A. L. Rep. 101 (Apr. 1978).

168. The *Buehler* case, note 165 *supra*, involved fire damage. A defective water container that bursts on impact could cause water damage. A synthetic material that gives off unreasonably dangerous toxic fumes on being ignited could cause suffociation. *See* Brennan, *Products Liability Law as Applied to Aviation Accidents*, 75 Best's Review No. 6, at 86 (Property/Liability Ins. ed. 1974). However, the majority of the cases involve defectively designed automobiles (*see* Annot. 42 A.L.R.3d 560 (1972)), and hence the term "crashworthiness" is often used to describe the genre.

169. Harrison v. McDonough Power Equipment, Inc., 381 F. Supp. 926 (S.D. Fla. 1974).

170. *See* the discussion in Evans v. General Motors Corp., 359 F.2d 822 (7th Cir.), *cert. denied*, 385 U.S. 836 (1966).

171. McClung v. Ford Motor Co., 333 F. Supp. 17, 20 (S.D. W. Va. 1971), *aff'd* 472 F.2d 240 (4th Cir.), *cert. denied*, 412 U.S. 940 (1973).

courts should not entertain any kind of design litigation. They do not go so far, however.

Perhaps courts denying recovery for increased injuries do so, not because of the presence of the crashworthiness issue, but rather because they do not believe there is a defect in the first place. Thus the statement is made that the manufacturer is not required to design a foolproof product.[172] This of course is true, but it should not defeat recovery where injury is caused by an unreasonably dangerous condition. Probably these courts would allow recovery where the danger is egregious, and there seems no good reason for stopping at this halfway station.

An important feature of some crashworthiness cases is that the court places the burden on the plaintiff to show what part of his injuries is attributable to the product, and what part to another instrumentality.[173] These cases thus differ from the usual joint tortfeasor suit, where the plaintiff recovers a judgment for the full amount of his damages against all tortfeasors and they are then left to apportion fault or causation among themselves.[174]

Probably the joint tortfeasor rule should be extended to crashworthiness cases, at least where the plaintiff is free of fault, since placing the burden of apportionment on the innocent plaintiff may work a severe hardship when the damages are effectively indivisible. Crashworthiness cases in many instances are essentially no different from those joint tortfeasor cases wherein the contribution of each to the total damage is theoretically separable, but the apportionment of harm to causes is not practical.[175] Thus, there is no reason for treating the cases differently. Where the damages are readily divisible, it seems fair to make the division if the defendants are not acting in concert. Even in cases of readily divisible damages, however, a tortfeasor who injures first in time may be liable for all resulting injuries that are a foreseeable consequence of his tortious conduct; so it would seem that even in crashworthiness cases the plaintiff should be able to recover all his damages from the defendant who causes the accident if the aggravation is reasonably foreseeable.

Where the plaintiff is partly at fault, the result will depend on the jurisdiction's rules regarding contributory or comparative negligence.[176] If the plaintiff is not totally barred by his own conduct, then even here it seems unduly harsh to place on him a burden of apportionment of damages attributable to the defendants where that burden is impossible to carry. Probably the defendants have the burden of showing the portion of damages caused by

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172. Willis v. Chrysler Corp., 264 F. Supp. 1010, 1011 (S.D. Tex. 1967).

173. *See, e.g.*, Huddell v. Levin, 537 F.2d 726, 739 (3d Cir. 1976); Stahl v. Ford Motor Co., 381 N.E.2d 1211, 1215 (Ill. App. 1978).

174. Amer. Motorcycle Ass'n v. Superior Court, 20 Cal. 3d 578, 578 P.2d 899, 903-04, 146 Cal. Rptr. 182, 186-87 (1978); PROSSER, *supra* note 2, at 297.

175. Arnst v. Estes, 136 Me. 272, ___, 8 A.2d 201, 204 (1939).

176. In a partial comparative negligence system, the plaintiff will be barred if his negligence equals or, in some jurisdictions, is greater than that of the defendant(s), while in a pure system he can recover as long as his negligence is not the sole proximate cause. V. SCHWARTZ, COMPARATIVE NEGLIGENCE ch. 3 (1974).

plaintiff's fault,[177] and the plaintiff should then recover jointly and severally against the defendants for the remainder as in other cases of indivisible damages.

Crashworthiness damage apportionments are made on the basis of comparative causation,[178] while joint tortfeasor and comparative negligence apportionments are usually made on the basis of relative fault.[179] The results may be different depending on which factor is used. Both are relevant, however, and the factfinder should probably be given the opportunity to use either or a combination of both in making its determination.[180]

D. *Inadequate Instructions and Warnings*

The third major variety of defect is the absence or inadequacy of needed directions or warnings. A direction tells how to use a product properly, while a warning alerts the user to the dangers of improper use.[181] A product is defective if it lacks either a needed direction or warning. The term "warning" as used hereafter includes directions.

As with design defects, some courts say that a warning suit in strict liability is no different from one in negligence.[182] The criticism of that position already offered regarding design defects[183] applies equally here. Moreover, if the manufacturer is expected to warn of latent production defects,[184] then even as an expert he may not know or have reason to know of the defects.

As already noted,[185] a manufacturer or other seller may be required to warn of a product danger which should reasonably come to his attention only after the product has left his hands. This subsequent duty to warn has regularly been placed in negligence[186]—it arises only after the seller has reason to know of the danger. To turn this duty into one of strict liability would make it redundant as a subsequently arising duty, since the warning duty in strict liability arises at the date of sale and remains unchanged throughout the period of liability. The subsequently arising negligence duty gives rise to a new claim, starting the statute of limitations running anew.[187]

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177. *Id.* at § 17.2. If the accident is caused by a natural force or by a person who is judgment proof or is not subject to service of process, there may be only one defendant.

178. *See* Huddell v. Levin, 537 F.2d 726, 742 (3d Cir. 1976).

179. SCHWARTZ, *supra* note 176, ch.3.

180. This is the approach taken in the proposed Model Comparative Fault Act. *See* Wade, *A Uniform Comparative Fault Act—What Should It Provide?* 10 U. MICH. J. LAW REFORM 220, 228-30 (1977).

181. Bitum. Cas. Corp. v. Black & Decker Mfg. Co., 518 S.W.2d 868, 872 (Tex. Ct. App. 1974); FRUMER & FRIEDMAN, *supra* note 38, § 8.05[1].

182. Woodill v. Parke Davis & Co., 374 N.E.2d 683, 685 (Ill. App. 1978); *but see* Robbins v. Farmers Union Grain Terminal Ass'n, 552 F.2d 788, 793 (8th Cir. 1977).

183. *See* § III.C. *supra.*

184. *See* Chappuis v. Sears, Roebuck and Co., 358 So. 2d 926, 930 (La. 1978).

185. *See* note 70 *supra* and accompanying text.

186. Rodriguez v. Besser Co., 565 P.2d 1315, 1320 (Ariz. App. 1977); *see* Shafer, *Products Liability: Post-Sale Warnings,* 1978 ARIZ. ST. L.J. 49.

187. *See* Phillips, *An Analysis of Proposed Reform of Products Liability Statutes of Limitations,* 56 N.C. L. REV. 663, 666 (1978).

A warning may be required even though a product is made in all respects as intended.[188] This is so because a product, while well made, can contain latent dangers of which the user is unaware. Typical examples are poisons, combustibles and caustics. A poison is made for the purpose of being toxic, but the public must be warned of this toxicity to avoid mistaken use of the product. A machine may have a dangerous design feature that cannot feasibly be eliminated, but the supplier may nevertheless be required to warn of this feature in order to protect those using the machine.

Courts also hold that the supplier can fulfill his duty to furnish a safe product by warning of a manufacturing or design defect in the product.[189] One might conclude that public policy should require correction, rather than merely warning of a defect. By electing to warn, however, the supplier runs the risk that the warning will be found inadequate, or will not reach those who should receive it. Where the risk of serious harm from a defect is great, a court may hold that a supplier's duty cannot be fulfilled merely by warning.[190]

Proving inadequacy of warning is usually substantially easier than proving defective design, because reasonable expectations as to the necessity or adequacy of a warning are often a matter of common knowledge.[191] The average person probably does not know whether a particular floor glue can feasibly be made less combustible, but he nevertheless can judge whether a warning as to combustibility is adequate. Also, there is usually no problem in tracing warning inadequacies to the date of manufacture.

To be adequate, warnings must be reasonably conspicuous, strong and clear. They must describe the danger and, where pertinent, the means of avoiding it.[192] The effectiveness of a warning may be diluted by other supplier representations of safety that lull the user into a false sense of security.[193] While little or no warning may have to be given to the expert user,[194] a clear and strong warning is required for dangerous products which the supplier can

188. Johnson v. Husky Industries, Inc., 536 F.2d 645, 648 (6th Cir. 1976); Burch v. Amsterdam Corp., 366 A.2d 1079, 1084-85 (D.C. 1976).

189. *See* Skyhook Corp. v. Jasper, 560 P.2d 934, 938 (N.M. 1977); Phillips-CINCINNATTI, *supra* note 126, at 106-07. *But see* Embry v. General Motors Corp., 565 P.2d 1294, 1297 (Ariz. App. 1977).

190. The courts in Sturm Ruger & Co. v. Bloyd, PROD. LIAB. REP. (CCH) ¶ 8209 (Ky. 1978), and in Ruggeri v. Minn. Min. & Mfg. Co., 380 N.E.2d 445 (Ill. App. 1978), appear to hold, without discussion, that the duty to design properly cannot be discharged by providing a warning. *See also* Embry v. General Motors Corp., 565 P.2d 1294, 1297 (Ariz. App. 1977). There is analagous authority that land occupiers are not discharged from liability by the obviousness or knowledge on the part of the plaintiff of premises danger, where the occupier should anticipate harm despite such knowledge or obviousness. Wilk v. Georges, 267 Or. 19, 514 P.2d 877 (1973); RESTATEMENT (SECOND) OF TORTS § 343A (1965).

191. *See* Shell Oil Co. v. Gutierrez, 581 P.2d 271, 279 (Ariz. App. 1978), excluding expert evidence as to the sufficiency of a warning on the label of defendant's product, on the ground that the jury was as competent as any expert to determine the issue.

192. Boyl v. Cal. Chem. Co., 221 F. Supp. 669, 674-75 (D. Or. 1963).

193. Maize v. Atl. Refin. Co., 352 Pa. 51, ____, 41 A.2d 850, 853 (1945).

194. Martinez v. Dixie Carriers, Inc., 529 F.2d 457, 464-65 (5th Cir. 1976).

reasonably expect to be used by inexperienced persons.[195]

In the case of prescription drugs, a warning must be given to the prescribing physician by the means most likely to reach him.[196] In other cases the actual user or his supervisor must be warned.[197] Where feasible, the product must carry its own warning by label on the product itself or on its container.[198]

Warning cases present difficult problems of defense for the product supplier because the law in this area is so expansive and pervasive. The trial lawyer's ingenuity can usually come up with a clearer warning than that given, or with an additional hazard that might have been warned against. The more extensive the warning, the greater the likelihood that its effectiveness will be diluted. In addition, the very nature of advertising usually is to lull and cajole, and thus its impact counteracts the effectiveness of warnings.

All of this suggests the need for a common sense approach to warning requirements.[199] The device should not be used as a handle to belabor suppliers with unrealistic duties. On the other hand, suppliers should not attempt to slough off the duty to make a reasonably safe product by simply warning of the dangerous condition. Warnings should be used as a protective measure only after reasonable efforts at making a safer design have been exhausted.

1. *Allergies*

Special rules have developed with regard to the duty to warn of product allergens. It is sometimes said that the supplier has no duty to eliminate allergenic qualities from his product, but he only has to warn in appropriate cases. This does not distinguish allergens from other product defects, however, since as already noted,[200] the supplier is generally permitted under present law either to correct or to warn of an unreasonable danger.

The distinguishing feature of the law of allergies is that the supplier is not required to warn at all unless it can be shown that a "substantial" or "appreciable" number of people are allergic to the product.[201] The courts have not attempted to define an "appreciable number" with any mathematical precision, and the duty to warn will vary not only according to the size of the class affected but also according to the gravity of the risk.[202] The existence of an appreciable number can be shown by evidence of complaints to the supplier, or by testimony of dermatologists or allergy experts regarding the allergenic character of a product.

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195. Hubbard-Hall Chem. Co. v. Silverman, 340 F.2d 402, 405 (1st Cir. 1965).

196. Fogo v. Cutter Laboratories, 68 Cal. App. 3d 744, ___, 137 Cal. Rptr. 417, 427 (1977).

197. *See* Little v. PPG Industries, 579 P.2d 940, 947 (Wash. App. 1978) (jury question whether warning to plaintiff's supervisor was sufficient).

198. Jackson v. Coast Paint & Lacquer Co., 499 F.2d 809, 814 (9th Cir. 1974).

199. See the discussion in Goodman v. Stalfort, Inc. 411 F. Supp. 889, 894-95 (D. N.J. 1976).

200. *See* note 189 *supra* and accompanying text.

201. Wright v. Carter Products, Inc., 244 F.2d 53, 56 (2d Cir. 1957).

202. *Id.*

Comment *j* of Restatement (Second) of Torts section 402A states that the "seller may reasonably assume that those with common allergies, as for example to eggs or strawberries, will be aware of them, and he is not required to warn against them." This assumption is further justified by the fact that reactions to such products generally involve less severe consequences than with other product allergies.

Frequently allergies are cumulative in nature,[203] so the user may not have an allergic reaction until after he has used the product a number of times. If the user does not know he is allergic to an ingredient, a warning may be of no help to him[204] except perhaps for the slight advantage of enabling him to decide whether to risk using a product containing an allergen. In some cases preliminary patch tests are recommended before a product is applied generally, but these tests are not always effective.[205] The most useful warning identifies symptoms that may appear before a full allergic reaction occurs,[206] where it is possible to make this identification.

Comment *j* of the Second Restatement of Torts section 402A further states with reference to allergies that the supplier is required to warn "if he has knowledge, or by the application of reasonable, developed human skill and foresight should have knowledge, of the presence of the ingredient and the danger." Reason to know of the danger goes to the question of the existence of an appreciable number of people who are allergic, and thus involves foreseeability which applies in strict liability as well as in negligence. Reason to know of the presence of the dangerous ingredient is solely a negligence concept, however, and should be irrelevant to a finding of a duty to warn whether in warranty or strict tort.

Where a representation or express warranty or a warranty of fitness for a particular purpose is given by the supplier, breach of such a warranty or representation causing the user to suffer an allergic reaction normally results in liability regardless of whether the supplier knows either of the harmful ingredient or of the allergic class of people.[207] The plaintiff's reliance on the defendant's misrepresentation is a sufficient basis for imposing liability.

E. *Obviousness of Danger and Common Knowledge*

One of the sturdiest bromides of products law has been that there is no liability for an obvious danger since if it is obvious it is not unreasonable. As the California Supreme Court pointed out, such a doctrine favors the calloused manufacturer who makes no effort to remedy a known danger, while the conscientious manufacturer is held liable for marketing a product with a

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203. FRUMER & FRIEDMAN, *supra* note 38, § 28.01[2].

204. Grau v. Proctor & Gamble Co., 324 F.2d 309, 310 (5th Cir. 1963).

205. Crotty v. Shartenberg's-New Haven, Inc., 147 Conn. 460, ____, 162 A.2d 513, 517 (1960).

206. See the discussion of this point in D'Arienzo v. Clairol, Inc., 125 N.J. Super. 224, ____, 310 A.2d 106, 110 (1973).

207. Drake v. Charles of Fifth Avenue, Inc., 33 App. Div. 987, ____, 307 N.Y.S.2d 310, 311 (1970).

latent danger which he may be unable to discover.[208] Obviousness may in some situations remove the unreasonableness of a danger, but it does not always do so.[209] Obviousness may also go toward establishing unreasonable conduct on the part of the user thus barring his recovery, but a bystander who knows nothing of the danger should not be barred on this basis.[210]

The obviousness doctrine owes much of its vitality to *Campo v. Scofield*,[211] where the New York Court of Appeals held that the absence of a safety device on an onion-topping machine was obvious and therefore not unreasonable. That court overruled the *Campo* decision in *Micallef v. Miehle Co.*,[212] and it can be expected that other courts will follow suit in putting the doctrine to a well-deserved rest.

Paul Micallef, a printing press operator, was injured as he attempted to "chase hickies on the run" on the printing plate of the machine he was operating. A hickey is a small foreign object that gets on the plate causing a blemish in the printing. The industry custom of chasing it "on the run," that is without stopping the machine, is often followed in order to avoid shutting down the machine resulting in the loss of about three hours of printing time. The complaint was that the defendant machine manufacturer should have installed a safety device to protect the employee from exposure to the risk of injury. Plaintiff's expert testified that at least three differenct types of guards were available, two for over 30 years, and that they would have protected the employee without impeding the practice of "chasing hickies."

In reversing the Appellate Division's dismissal of the case on grounds of obviousness, the Court of Appeals said:

> Apace with advanced technology, a relaxation of the *Campo* stringency is advisable. A casting of increased responsibility upon the manufacturer, who stands in a superior position to recognize and cure defects, for improper conduct in the placement of finished products into the channels of commerce furthers the public interest.
>
> . . . .
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> As now enunciated, the patent-danger doctrine should not, in and of itself, prevent a plaintiff from establishing his case . . . . Rather, the openness and obviousness of the danger should be available to the defendant on the issue of whether the plaintiff exercised that degree of reasonable care as was required under the circumstances.[213]

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208. Luque v. McLean, 8 Cal. 3d 136, ___, 501 P.2d 1163, 1169, 104 Cal. Rptr. 443, 449 (1972).

209. *Compare* McIntyre v. Everest & Jennings, Inc., 575 F.2d 155, 159 (8th Cir. 1978) (risk of tipping commode on casters was known, obvious and apparent) and Berry v. Eckhardt Porsche Audi, Inc., 578 P.2d 1195, 1196 (Okla. 1978) (accord, disconnected seat belt buzzer) *with* Lamon v. McDonnell Douglas Corp., 576 P.2d 426, 429-30 (Wash. App. 1978), *aff'd*, 588 P.2d 1346 (Wash. 1979) (jury issue regarding unreasonable danger of open emergency hatch in airplane) and Brown v. North Amer. Mfg. Co., 576 P.2d 711, 717-18 (Mont. 1978) (accord, unguarded grain auger).

210. Pike v. Frank G. Hough Co., 2 Cal. 3d 465, ___, 467 P.2d 229, 234, 85 Cal. Rptr. 629, 634-35 (1970).

211. 301 N.Y. 468, 95 N.E.2d 802 (1950).

212. 39 N.Y. 2d 376, 348 N.E.2d 571 (1976).

213. *Id.* at 577-78.

Related to the doctrine of patent or obvious danger is that of common knowledge. Recovery is denied in some cases on the ground that the risk is commonly known. Sellers of trichinous raw pork have been protected from liability on the ground that it is common knowledge that pork must be cooked before it is safe for eating.[214] It is common knowledge, it has been held, that fish chowder may contain bones;[215] that the soles of shoes are slippery when wet;[216] that a person may strike his head on the bottom if he dives into a shallow vinyl swimming pool;[217] and that a rubber exercising rope will contract when it is stretched.[218]

The courts' assumption of common knowledge in such cases is probably a fictional way to achieve other stated or implicit policy goals, since it is doubtful that the plaintiffs in these cases are actually aware of the dangers they confront. In the trichinosis cases it is clear that the court is concerned with customer preferences for cooking fresh rather than frozen meat,[219] since freezing would eliminate the risk of trichinosis.[220] Similarly, in the fish chowder case the court noted defendant's plea to " 'save our world-renowned fish chowder from degenerating into an insipid broth. . . .' "[221] In other cases the court may be concerned with the infeasibility of making a safer product. How can a slip-proof shoe be made without destroying the shoe's utility?

In some instances the issue is very close, particularly where the plaintiff may have lulled the user into a false sense of security by misleading directions, advertising or misrepresentations. In the rubber-exercising-rope case, the manufacturer actually directed the exercise that caused the injury, as the dissent noted.[222] The extreme elasticity of the rope was more of a concealed than an open danger.

Sometimes the balance is also shifted in favor of liability owing to the ease with which a warning can be given and the grave risk if a miscarriage occurs. So it has been held at common law and by federal regulation that manufacturers of charcoal briquets must warn of the danger of asphyxiation from using charcoal indoors without adequate ventilation.[223] A warning of the danger of smoking is now required by statute.[224] It may someday be successfully contended that distillers should warn of the addictive and other hazard-

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214. Scheller v. Wilson Certified Foods, Inc., 559 P.2d 1074, 1077 (Ariz. App. 1976); Kobeckis v. Budzko, 225 A.2d 418, 421 (Me. 1967); Hollinger v. Shoppers Paradise of N.J., Inc., 134 N.J. Super. 328, ____, 340 A.2d 687, 692 (1975).

215. Webster v. Blue Ship Tea Room, Inc., 347 Mass. 421, 198 N.E.2d 309 (1964).

216. Fanning v. LeMay, 38 Ill. 2d 209, 230 N.E.2d 182 (1967).

217. Colosimo v. The May Dept. Store Co., 466 F.2d 1234 (3d Cir. 1972).

218. Jamieson v. Woodward & Lothrop, 247 F.2d 23 (D.C. Cir. 1957).

219. "The ultimate consumer, however, demands that fresh pork be offered for sale." Cheli v. Cudahy Bros. Co., 267 Mich. 690, ____, 255 N.W. 414, 415 (1934).

220. Kobeckis v. Budzko, 225 A.2d 418, 420 (Me. 1967).

221. Webster v. Blue Ship Tea Room, Inc., 347 Mass. at ____, 198 N.E.2d at 310-11.

222. Jamieson v. Woodward & Lothrop, 247 F.2d at 37-38.

223. Johnson v. Husky Industries, Inc. 536 F.2d 645 (6th Cir. 1976); Hill v. Husky Industries, Inc., 260 N.W.2d 131 (Mich. App. 1977); 36 Fed. Reg. 14,729-30 (1971) (*see* § 191.7).

224. 15 U.S.C. § 1334 (1976).

ous effects of drinking whiskey.[225] While these dangers are generally known, a warning might have the same in terrorem effect as the warning on cigarette packages and advertising is expected to have. On the other hand, the values of free choice and individual decision-making may favor leaving the balance of liability where it presently is for such well-known risks as alcohol consumption.[226]

F. *Unavoidably Unsafe Products*

Comment *k* to section 402A of the Second Restatement of Torts states:

> There are some products which, in the present state of human knowledge, are quite incapable of being made safe for their intended and ordinary use. These are especially common in the field of drugs. An outstanding example is the vaccine for the Pasteur treatment of rabies, which not uncommonly leads to very serious and damaging consequences when it is injected. Since the disease itself invariably leads to a dreadful death, both the marketing and the use of the vaccine are fully justified, notwithstanding the unavoidable high degree of risk which they involve. Such a product, properly prepared, and accompanied by proper directions and warning, is not defective, nor is it *unreasonably* dangerous. The same is true of many other drugs, vaccines, and the like, many of which for this very reason cannot legally be sold except to physicians, or under the prescription of a physician. It is also true in particular of many new or experimental drugs as to which, because of lack of time and opportunity for sufficient medical experience, there can be no assurance of safety, or perhaps even of purity of ingredients, but such experience as there is justifies the marketing and use of the drug notwithstanding a medically recognizable risk. The seller of such products, again with the qualification that they are properly prepared and marketed, and proper warning is given, where the situation calls for it, is not to be held to strict liability for unfortunate consequences attending their use, merely because he has undertaken to supply the public with an apparently useful and desirable product, attended with a known but apparently reasonable risk.

The unavoidably unsafe rationale provides the best explanation for nonliability in the blood transfusion hepatitis cases and the pork trichinosis cases.[227] Given the present state of scientific knowledge, it is said, the risk of the hepatitis virus in blood and of trichinae in pork cannot always be detected. These products are very useful, and thus their marketing is justified.

The unavoidably unsafe doctrine is not limited to food, drugs and medi-

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225. *Cf.* Crowther v. Ross Chem. and Mfg. Co., 42 Mich. App. 426, 202 N.W.2d 577 (1972) (necessity of warning intentional user against dangers of glue-sniffing—defendant manufacturer's motion for summary judgment denied).

226. *See* James, *The Untoward Effects of Cigarettes and Drugs: Some Reflections on Enterprise Liability*, 54 CALIF. L. REV. 1550 (1966).

227. *See* McMichael v. Amer. Red Cross, 532 S.W.2d 7 (Ky. 1975) (comment *k* applied to blood); Hollinger v. Shoppers Paradise of N.J., Inc., 134 N.J. Super. 328, 340 A.2d 687 (1975) (accord, trichinous pork). Forty-six states eliminate strict liability by legislation or judicial decision for the furnishing of blood containing the hepatitis virus. J. LEGAL MED. 4(6):17 (1976).

cal supplies. It may be applied broadly to any socially useful product that cannot be made entirely safe. For example, it has been applied to the risk of contracting asbestosis and mesothelioma from asbestos insulation.[228] It applies where the risk is known generally but not detectable in individual products.

If the unavoidably unsafe exception is restricted to known risks that are undetectable in individual products, there is no conflict between this exception and the doctrine of strict liability. Unless the risk is obvious or a matter of common knowledge, a warning will be required. However, some courts have gone farther and have held that there is no liability for injuries resulting from completely unknown risks associated with products that are deemed unavoidably unsafe.[229] Such a rule potentially undermines strict liability entirely, unless the category of unavoidably unsafe products is somehow restricted as for example to drugs and the like.

G. *Used Goods and the Expectable Life of a Product*

There is a division of authority as to whether implied strict liability at common law applies to one in the business of supplying used products. The Illinois Supreme Court, in refusing to impose such liability on a used car dealer, said that if the liability were imposed the dealer "would in effect become an insurer against defects which had come into existence after the chain of distribution was completed, and while the product was in the control of one or more consumers."[230]

The New Jersey Superior Court, by contrast, held that strict tort liability could be imposed on a seller of a used truck whose cab collapsed and fell on the purchaser killing him. "Public policy demands that the buyer receive a used chattel safe for the purpose intended. . .," the court said. "Justifiable expectations for safety run to ordinary parts expected to receive regular maintenance and replacement, *e.g.* brake shoes and linings, steering linkage, exhaust system, etc. On the other hand, surface dents, rust or metal fatigue resulting from mere old age would be defects the risk of which the buyer may reasonably be expected to absorb without undue threat to the public at large."[231] The court's exclusion of metal fatigue is questionable if the fatigue constitutes a latent defect posing a risk of serious physical injury.

Some jurisdictions by statute impose specified duties of reasonable inspection on used car dealers.[232] Others impose such a duty by common

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228. Borel v. Fibreborad Papers Products Corp., 493 F.2d 1076 (5th Cir. 1973).

229. *Id.* Dalke v. The Upjohn Co., 555 F.2d 245 (9th Cir. 1977) (tetracycline-based prescription drugs—factual question regarding defendant's knowledge); Crocker v. Winthrop Laboratories, 514 S.W.2d 429 (Tex. 1974) (drug with unknown addictive quality—liability imposed under section 402B but not under section 402A). *See* Willig, *The Comment K Character: A Conceptual Barrier To Strict Liability*, 29 MERCER L. REV. 545 (1978).

230. Peterson v. Lou Bachrodt Chevrolet Co., 61 Ill. 2d 17, ____, 329 N.E.2d 785, 787 (Ill. 1975).

231. Turner v. Int'l Harvester Co., 133 N.J. Super. 277, ____, 336 A.2d 62, 69 (1975).

232. Gaidry Motors, Inc. v. Brannon, 268 S.W.2d 627, 631 (Ky. 1953) (Combs, J., dissenting).

law.[233] If the dealer actually undertakes to inspect, he may be held liable in negligence[234] or even in strict liability.[235]

The question of the appropriate liability to impose upon a seller may arise not just with automobiles, but with any type of used goods.[236] Similar issues may be posed by the business of leasing goods, since leased goods are often also used. The trend is to impose strict liability on the lessor who leases an unreasonably dangerous product.

A related issue concerns the expectable life of a product, whether sold new or used. In one case the court held a jury question was presented as to the liability of a hammer manufacturer for an eye injury caused by the metal of a hammer that chipped from work-hardening after approximately 11 months of use.[237] In another, a jury question was presented regarding a re-capped tire that blew out after 5,000 to 6,000 miles of use.[238] Liability was sustained for injuries resulting from failure of a laundry machine seal after 18 years of use, where the defendant manufacturer's president testified that the normal life expectancy of the product was 30-40 years.[239]

Justice Traynor in a thoughtful article noted the problem of determining expectable life. Where a product that is subjected to normal use gives way much sooner than would ordinarily be expected, recovery can easily be justified. But what if the product lasts four of its normal five years, and then proves defective?[240]

One solution might be for the manufacturer to indicate expectable life where it can reasonably be estimated.[241] This approach would prove difficult or impossible, however, where there is no fixed expectable life or where it varies widely according to the amount and nature of use. Alternatively, the manufacturer might warn the purchaser to check certain crucial risk features periodically. In some instances such a warning is unnecessary. Everyone knows for example that tires must be periodically checked for wear.[242]

A different issue is presented when a latent defect develops unreasonably early in the life of a product, but does not cause injury until much later. In *Minkle v. Blackmon*[243] the plaintiff was impaled on a gearshift lever in a collision because the plastic ball on the end of the lever shattered on impact. Although the accident did not occur until thirteen years after manufacture,

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233. *Id.* at 629.

234. Foster v. Marshall, 341 So. 2d 1354 (La. Ct. of App. 1977) (cotter key in trailer's bolting assembly).

235. Realmuto v. Straub Motors, Inc., 65 N.J. 336, 322 A.2d 440 (1974).

236. *See, e.g.*, Hovenden v. Tenbush, 529 S.W.2d 302 (Tex. Ct. App. 1975) (bricks).

237. Dunham v. Vaughan & Bushnell Mfg. Co., 42 Ill. 2d 339, 247 N.E.2d 401 (1969).

238. Markle v. Mulholland's, Inc., 265 Or. 259, 509 P.2d 529 (1973).

239. Miller v. Bock Laundry Mach. Co., 568 S.W.2d 648 (Tex. 1977).

240. Traynor, *The Ways and Meanings of Defective Products and Strict Liability*, 32 TENN. L. REV. 363, 369-70 (1965).

241. *See* REASONABLY SAFE PRODUCT, *supra* note 129, at 82.

242. *See* Foster v. Marshall, 341 So. 2d 1354 (La. Ct. of App. 1977) (farmers expected to inspect periodically the cotter key in agricultural equipment).

243. 252 S.C. 202, 166 S.E.2d 173 (1969).

the knob was made of white plastic material which, unlike other colors, would deteriorate after twelve months of exposure to sunlight. The court in upholding liability against the manufacturer readily conceded that the passage of thirteen years would normally pose "a formidable obstacle" to recovery. No such problem existed here, however, since the advanced age of the knob was merely "coincidental with its failure rather than the cause of it."[244]

Where product defects do not arise from normal deterioration and are attributable to improper design, the passage of time often does not affect the determination of defectiveness at the date of manufacture. A machine designed without adequate safety guards remains in that condition throughout its useful life. Similarly, a product sold without adequate warning of dangers associated with its use will probably remain in that condition throughout its life.

IV. Proof of Liability

A. *Negligence*

The general rules for proof of negligence in products liability are the same as those in tort law at large. The supplier's knowledge or reason to know of product defectiveness can be inferred from circumstantial evidence, including prior complaints,[245] custom and practice in the industry[246] and any other reasonably available source of knowledge. Res ipsa loquitur and similar doctrines are used to infer the manufacturer's actual or constructive knowledge of a miscarriage in the manufacturing process,[247] where that miscarriage would normally not occur in the absence of negligence. Supplier compliance with relevant statutes, administrative regulations, safety codes and industry custom is some evidence of due care, but is not conclusive.[248] Conversely the supplier's failure to comply with a relevant statute, regulation or custom, either establishes negligence per se or permits an inference of negligence.[249] Statutory or regulatory noncompliance is an important source of liability in the products field, owing to the numerous federal and state statutes and regulations governing the distribution of products.

In tort law generally it is recognized that the expert is held to a higher standard of care than the ordinary person. So it is in products law that the manufacturer is held to the standard of an expert regarding the products he produces, while other suppliers are held only to the standard of the ordinary prudent person.[250] This distinction is appropriate, since the manufacturer is in a peculiarly strategic position to see that the product is safely produced.

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244. *Id.* at ____, 166 S.E.2d at 190.
245. Farner v. Paccar, Inc., 562 F.2d 518 (8th Cir. 1977).
246. Frankel v. Styer, 386 F.2d 151 (3d Cir. 1967).
247. Dayton Tire and Rubber Co. v. Davis, 348 So. 2d 575 (Fla. Dist. Ct. App. 1977).
248. Frumer & Friedman, *supra* note 38, § 6.01[1] (compliance with standards of the industry); Nutshell, *supra* note 61, at 273.
249. Nutshell, *supra* note 61, at 279-84.
250. *See* notes 149-150 *supra* and accompanying text.

He either makes the product or assembles its parts, and it is at these points that unreasonable product dangers can most effectively be prevented.

Thus far the courts have generally applied the same standard of care to all manufacturers, regardless of whether they are giants in the industry or merely local businesses. In fact, however, the knowledge, technology and resources available to different industries vary widely. The courts probably judge all manufacturers by the same standard because of society's vital interest in the safety of its citizens. One who undertakes a hazardous enterprise should do so only if he has the necessary skill, or else he should expect to be judged as if he in fact possessed that skill. Practically speaking, however, the jury may draw distinctions based on the size of a defendant.

B. *Defect and Actual Cause*

Much of the previous discussion deals with the definition and methods of proving defect, and need not be repeated here. It is useful at this point to examine the relation between proof of defect and actual cause, since a large amount of current products litigation concerns the problems associated with proving this relation.

1. *Burden of Proof*

For present purposes we can assume that the product is defective in some way and has caused injury. It may have exploded, broken, burned, shocked or otherwise failed to meet ordinary expectations as to a properly functioning product. The critical question then is whether the product possessed the defective condition when the defendant supplied it to the consumer, since if the condition arose afterwards the defendant normally is not liable. The plaintiff usually has the burden of proving defectiveness at the time of supply.[251]

Proving a causal defect for which the defendant is liable often means the plaintiff must eliminate all other reasonably likely causes. It is generally held that he need not eliminate all possible alternative causes. He need only show by a preponderance of the evidence that it is more probable than not that other likely causes were not the proximate cause.[252]

Even when likely alternative causes are eliminated, the plaintiff may still be required to show that the defect did not arise after the product left the defendant's hands as the result of events for which the defendant is not

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251. Kerley v. Stanley Works, 553 S.W.2d 80 (Tenn. App. 1977). *But see* Barker v. Lull Eng'r Co., 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978) (burden of proof on defendant to prove nondefectiveness in design cases requiring expert testimony).

252. *See* Int'l Harvester Co. v. Chiarello, 27 Ariz. App. 411, 555 P.2d 670 (1976); Kimbrell v. Zenith Radio Corp., 555 P.2d 590 (Okla. 1976); Annot., 54 A.L.R.3d 1079 (1974). Lack of ease of alteration (tie rod within auto chassis) justifies relaxing the burden of eliminating alternative causes. *See* Langford v. Chrysler Corp., 513 F.2d 1121 (2d Cir. 1975). *Cf.* Farner v. Paccar, Inc., 562 F.2d 518, 525 n.10 (8th Cir. 1977) ("If two or more inferences as to causation appear to the court to be equally probable, that fact alone strongly indicates that reasonable men might differ as to the conclusion to be drawn.").

legally responsible.[253] The newer the product, the easier plaintiff's burden in this respect will be.[254] If a product malfunctions within a few days or weeks after purchase, and it has not been misused in a way likely to cause the malfunction, courts tend to hold that the plaintiff has carried his burden by proving the fact of the accident alone. He need not offer specific proof of defect, or show in detail just what went wrong. An inference of manufacturing defect arises, similar to the inference of negligence in res ipsa loquitur.[255] As the length of time between sale and accident increases, plaintiff's burden of proof also tends to increase.

A multiplicity of factors besides mere lapse of time goes into determining the appropriate weight of the burden to be placed on the plaintiff. If for example the product is one about which the average user does not have fairly settled expectations of ordinary performance, the plaintiff may be required to offer clearer proof of manufacturing causation.[256] If the product has been subjected to extensive use, with ample opportunity for product wear, alteration or abuse, the burden of proof will also be greater.[257]

It is apparent that the actual burden varies according to the philosophy of the court and of the jury regarding products litigation and the weight of inferences in general. No hard and fast rule can be set down, because the situation varies with the product, the court and the time. For example, one court may conclude that the likelihood of tampering is substantial where a soda pop bottle contains a foreign ingredient, while another may decide the likelihood is remote at best.[258] So also, in a situation where several causes may well have concurred to produce an injury, the fact-finders determination of what constitutes a "substantial cause" attributable to the defendant is crucial to the outcome.[259]

Lightening the burden of proof of causation placed on the plaintiff has the practical effect of shifting that burden to the defendant, even though in a technical sense it may remain with the plaintiff.[260] Once the plaintiff has established a prima facie case, the defendant then feels he must refute it by showing alternative causation, or else run the risk of an adverse verdict.

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253. *See, e.g.*, Stewart v. Ford Motor Co., 553 F.2d 130 (D.C. Cir. 1977); Tweedy v. Wright Ford Sales, Inc., 64 Ill. 2d 570, 357 N.E.2d 449 (1976).

254. *See* Dayton Tire and Rubber Co. v. Davis, 348 So. 2d 575 (Fla. Dist. Ct. App. 1977), *rev'd*, 358 So. 2d 1339 (Fla. 1978); Gillespie v. R.D. Werner Co., 71 Ill. 2d 318, 375 N.E.2d 1294 (1978); Miller v. Bock Laundry Mach. Co., 551 S.W.2d 775 (Tex. Ct. App.), *rev'd*, 568 S.W.2d 648 (Tex. 1977). The various ways of proving defectiveness are reviewed in Cornell Drilling Co. v. Ford Motor Co., 241 Pa. Super. Ct. 129, 359 A.2d 822 (1976).

255. Price v. Admiral Corp., 527 F.2d 412 (5th Cir. 1976) (inference); Piper v. Tensor Corp., 71 Mich. App. 658, 248 N.W.2d 659 (1977) (inference); Chatfield v. Sherwin-Williams Co., 266 N.W.2d 171 (Minn. 1978); (inference); Browder v. Pettigrew, 541 S.W.2d 402 (Tenn. 1976) (res ipsa).

256. *E.g.*, Heaton v. Ford Motor Co., 248 Or. 467, 435 P.2d 806 (1967).

257. Carlson v. American Safety Equip Corp., 528 F.2d 384 (1st Cir. 1976); Jakubowski v. Minn. Min. and Mfg. Co., 42 N.J. 177, 199 A.2d 826 (1964).

258. *Compare* Phipps v. Carmichael, 52 Tenn. App. 471, 376 S.W.2d 499 (1963) *with* Shoshone Coca-Cola Bottling Co. v. Dolinski, 82 Nev. 439, 420 P.2d 855 (1966).

259. *See, e.g.*, Vlahovich v. Betts Machine Co., 101 Ill. App. 2d 123, 242 N.E.2d 17 (1968).

In some cases involving multiple defendants the courts have recognized the propriety of shifting the burden of proving lack of causation to the defendants, and they have done so once the plaintiff has made a prima facie showing of injury and of the opportunity of each defendant to cause that injury.[261] There may be little difference between such an express shifting of the burden where multiple defendants are involved, and substantially lightening that burden where there are multiple likely causes, some of which are not attributable to the defendant or defendants.

2. *Warnings*

Where inadequacy or lack of warnings is alleged, a problem of causation often arises with regard to whether the plaintiff would have read and heeded adequate warnings even if they had been given. The problem is more difficult where it appears that the plaintiff did not read the allegedly inadequate warnings actually given. If he did not read those warnings, why should we assume he would read a different warning?[262]

The courts usually presume that the plaintiff would have read an adequate warning had one been given.[263] This presumption seems fair, since many factors including greater conspicuousness and intensity of language or use of familiar symbols[264] could have caused the plaintiff to heed an adequate warning. Where there is doubt, the one who placed the product on the market with inadequate warnings should have the burden of proof on the issue.

Whether the plaintiff would have heeded an adequate warning after reading it presents a different issue. If the warning would have enabled the plaintiff to use the product safely, the balance of probabilities shifts fairly clearly in favor of the plaintiff. More difficult causation questions are presented where an adequate warning would only have enabled the plaintiff to choose between using a useful product with its attendant risks, or not using it at all perhaps creating countervailing risks.[265] These cases closely resemble

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260. *See* Loch v. Confair, 372 Pa. 212, 93 A.2d 451 (1953). The burden of production and of persuasion may nevertheless remain with the plaintiff. *See* F. JAMES, JR. and G. HAZARD, JR., CIVIL PROCEDURE §§ 7.5-.8 (2d ed. 1977).

261. Hall v. E. I. DuPont de Nemours & Co., Inc., 345 F. Supp. 353 (E.D. N.Y. 1972); Anderson v. Somberg, 67 N.J. 291, 338 A.2d 1 (1975), *aff'd after retrial*, 158 N.J. Super. 384, 386 A.2d 413 (1978); Holliday v. Peden, 359 So. 2d 640 (La. Ct. of App. 1978). *Cf.* Barker v. Lull Eng'r Co., 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978).

262. *See* the discussion of the causation issue in Phillips, *Product Misrepresentation and the Doctrine of Causation*, 2 HOFSTRA L. REV. 561, 570-78 (1974).

263. *See* Shell Oil Co. v. Guiterrez, 119 Ariz. App. 426, 581 P.2d 271 (1978); Technical Chem. Co. v. Jacobs, 480 S.W.2d 602 (Tex. 1972); RESTATEMENT (SECOND) OF TORTS § 402A, Comment *j* (1965).

264. *E.g.*, skull and crossbones, *see* Hubbard-Hall Chem. Co. v. Silverman, 340 F.2d 402 (1st Cir. 1965).

265. *Compare* Reyes v. Wyeth Laboratories, 498 F.2d 1264 (5th Cir. 1974), *with* Greiner v. Volkswagenwerk Aktiengesellschaft, 429 F. Sup. 495 (E.D. Pa. 1977). In Calabrese v. Trenton State College, 162 N.J. Super. 145, 392 A.2d 600 (1978), plaintiff contended she should have been warned that the risk of serious side effects from rabies vaccine was greater than the risk of

the medical malpractice informed-consent cases. Perhpas where there is substantial uncertainty, the factfinder should be permitted to apportion damages based on its finding of the degree of likelihood that the plaintiff would have heeded an adequate warning.[266]

3. *Expert Testimony*

A longstanding litigation problem concerns the proper evaluation of expert testimony. This problem is particularly acute in products litigation, since often determinations of defectiveness and causation turn on complex issues of science and technology. The experts on each side are frequently at loggerheads regarding the proper resolution of these issues,[267] and the lay factfinder is often left with no effective means of evaluating the conflicting testimony. The great tool that is supposed to unravel these mysteries is cross-examination. Unfortunately, cross-examination sometimes sheds more obscurity than light on these complex matters.

The problem is a continuing one, with no satisfactory solution. Litigational issues of fundamental importance to society cannot safely be left to determination by a technocracy. Tort law, particularly products liability, is an integral part of these fundamental issues. The judicial system, as unsatisfactory as it may sometimes be in resolving complex matters, probably offers the best available solution. Like the democratic form of government, it leaves much to be desired but is better than any known alternative.

C. *Component Parts, Alteration of the Product and Nondelegable Duties*

Two of the caveats to section 402A of the Second Restatement of Torts deal with component parts and product alteration. In these caveats it is stated that the American Law Institute "expresses no opinion" as to whether the rule of that section applies "to the seller of a component part of a product to be assembled," or to the seller of "a product expected to be processed or otherwise substantially changed before it reaches the user or consumer."

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contracting rabies from dogbite; a jury issue was presented regarding the doctor's failure to warn, but the vaccine manufacturer was held to have adequately warned the doctor.

266. An analogous issue concerns the award of damages for the loss of an opportunity to compete for a prize, *see* C. McCormick, The Law of Damages § 31 (1935). *Cf.* Hamil v. Bashline, 392 A.2d 1280 (Pa. 1978) (medical malpractice, jury question presented by testimony of 75% chance of success with proper treatment); 21 A.T.L.A.L. Rep. 376 (Oct. 1978) (reviewing medical malpractice cases that permit recovery based on the value of a chance).

267. *See, e.g,* Stewart v. Ford Motor Co., 553 F.2d 130 (D.C. Cir. 1977); Marko v. Stop and Shop, Inc., 169 Conn. 550, 364 A.2d 217 (1975); Slepski v. Williams Ford, Inc., 170 Conn. 18 (1975); Firestone Tire & Rubber Co. v. King, 145 Ga. App. 840, 244 S.E.2d 905 (1978). Each of these cases involves a wide divergence of expert opinion on complex issues of defectiveness and causation.

1. *Component Parts*

Comment *q* to section 402A states: "It is no doubt to be expected that where there is no change in the component part itself, but it is merely incorporated into something larger, the strict liability will be found to carry through to the ultimate user or consumer." The Institute took no position on the subject because of the "absence of a sufficient number of decisions on the matter to justify a conclusion."

The Institute's prediction of the probable course of the law has proved entirely correct. All recent decisions support recovery in strict liability against the component part manufacturer for the sale of an unreasonably dangerous component causing injury where it is reasonably foreseeable that the part will be used without alteration.[268] He may also be held liable in negligence if lack of due care can be shown. This is as it should be, where the defect is traceable to the component manufacturer. There is no reason to distinguish a component from a completed product for this purpose, and insofar as the component manufacturer is concerned his product is complete.[269]

2. *Alteration*

A more complicated issue is involved where the product, whether component part or assembled unit, is altered in some way after it leaves the manufacturer's hands. The alteration may be made by a subsequent assembler, or by the user himself.

If the product is originally defective and the alteration does not change that defect, liability will be imposed on the original supplier. "If, for example, raw coffee beans are sold to a buyer who roasts and packs them for sale to the ultimate consumer, it cannot be supposed that the seller will be relieved of all liability when the raw beans are contaminated with arsenic, or some other poison."[270]

Where the product by alteration is capable of being put to an unintended use that is unreasonably dangerous, the supplier's liability will turn on whether the use is foreseeable. The question of foreseeability here is appar-

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268. DeSantis v. Parker Feeders, Inc., 547 F.2d 357 (7th Cir. 1976); HURSH & BAILEY, *supra* note 54, at 719. Goldberg v. Kollsman Instrument Corp., 12 N.Y.2d 432, 191 N.E.2d 81 (1963) (manufacturer of defective component part not liable where assembler can be sued), has not been followed elsewhere.

269. If the component is safe for some uses but not others, imposition of liability may turn on whether the dangerous use is foreseeable. Dunson v. S. A. Allen, Inc., 355 So. 2d 77 (Miss. 1978); NUTSHELL, *supra* note 61, at 79-82. Alternatively, the court may determine who, as between manufacturer and assembler, is in the best position to prevent the danger. *See* Verge v. Ford Motor Co., 581 F.2d 384 (3d Cir. 1978); Suchomajcz v. Hummel Chem. Co., 385 F. Supp. 1387 (E.D. Pa. 1974), *rev'd*, 524 F.2d 19 (3d Cir. 1975); Schipper v. Levitt & Sons, Inc., 44 N.J. 70, 207 A.2d 314 (1965).

270. RESTATEMENT (SECOND) OF TORTS § 402A, Comment *p* (1965); *see* Kessler v. Bowie Machine Works, Inc., 501 F.2d 617 (8th Cir. 1974).

ently the same whether suit is brought in negligence or strict liability.[271] If the supplier knows or has reason to know that the product is to be put to an unreasonably dangerous use, he may be required to take preventive measures by warning, changing the product or refusing to sell for the dangerous use.[272]

Another common alteration problem is where a user removes a safety device that was on the product when originally sold, and then someone is injured because of the absence of the device. Liability in this situation seems to turn on whether the device in effect "invites" removal, and whether a safer device is feasible. If the manufacturer includes on his product a safety device that is in the way or causes inefficient operation, and a safer and more efficient alternative is reasonably available, he should be held liable.[273] If, on the other hand, the product contains a well-made safety device which the user mindlessly alters or destroys, the manufacturer should not be required to foresee or guard against such alteration.[274]

3. *Nondelegable duties*

A few cases have arisen where the manufacturer ships his product to a dealer or distributor in a partially assembled condition, and the dealer or distributor is expected to complete the assembly before selling the product to the ultimate purchaser. If the dealer or distributor defectively assembles the product and it causes injury as a result, the manufacturer can be held liable in negligence or strict liability for injuries resulting from the defective assembly.[275] This is true even though the product was not defective when it left the manufacturer's hands, and even though the dealer or distributor is not his agent. The duty of proper assembly rests with the final manufacturer, and is not delegable. If the assembler could delegate his duty of proper assembly, he could farm out his liability in this regard while nevertheless holding himself out to the public as the one responsible for the final product.[276]

It would seem that the nondelegable duty of assembly would also apply where the manufacturer sells a product in an unassembled condition to be assembled by the ultimate purchaser.[277] The purchaser might be barred by his own contributory negligence in defectively assembling the product. But if not so barred, or if a third party is injured as a result of the defective

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271. *See* Hanlon v. Cyril Bath Co., 541 F.2d 343 (3d Cir. 1975) (strict tort); Temple v. Wean United, Inc., 50 Ohio St. 2d 317, 364 N.E.2d 267 (1977) (negligence, implied warranty and strict tort); McNeely v. Harrison, 138 Ga. App. 310, 226 S.E.2d 112 (1976) (negligence and implied warranty).

272. *See* note 269 *supra.*

273. Kuzin v. Lake Eng'r Co., 586 F.2d 33 (7th Cir. 1978); McGrath v. Wallace Murray Corp., 496 F.2d 299 (10th Cir. 1974); Cepeda v. Cumberland Eng'r Corp., 76 N.J. 152, 386 A.2d 816 (1978).

274. *E.g.*, Smith v. Hobart Mfg. Co., 302 F.2d 570 (3d Cir. 1962).

275. Vandermark v. Ford Motor Co., 61 Cal. 2d 256, 391 P.2d 168, 37 Cal. Rptr. 896 (1964); Sabloff v. Yamaha Motor Co., 113 N.J. Super. 279, 273 A.2d 606, *aff'd*, 59 N.J. 365, 283 A.2d 321 (1971).

276. *See* E. I. du Pont de Nemours and Co. v. McCain, 414 F.2d 369 (5th Cir. 1969).

277. *Cf.* Midgley v. S. S. Kresge Co., 55 Cal. App. 3d 67 (1976).

assembly, there is no difference in principle between this situation and that of defective assembly by a dealer or distributor.

D. *Post-Accident Improvements of the Product*

The traditional rule has been that post-accident remedial measures taken by one in possession or control of an instrumentality may not be introduced as evidence of negligence against the person taking such measures.[278] The rule has been applied to improvements by a product supplier in the manufacturer, warnings or design of his product.[279]

The rationale sometimes given for the rule is that an inference of preimprovement negligence may not properly be drawn, since the improvements could have been made simply out of an abundance of caution. This rationale is of doubtful validity, as the evidence may be more or less probative on the issue and its proper weight usually should be for the jury. More important, it is thought that the introduction of such evidence would discourage the product supplier from taking remedial measures, while the law should encourage such measures.[280]

Whatever the merits of these arguments, the exceptions have gone a long way toward swallowing the rule. In the products field, the most comprehensive and most frequently applied exception permits introduction of such evidence to prove the feasibility of product improvement when in issue.[281] Generally feasibility of improvement will be an issue. Moreover, if the defendant contends—as he usually will—that his product is safely made, plaintiff will then offer evidence of the defendant's own subsequent improvements to impeach the defendant's credibility.[282]

Some courts reject the feasibility exception, recognizing it as a circumvention which largely swallows the rule.[283] Certainly in products liability litigation based on defective design, a major issue often is feasibility of improvement. A manufacturer's failure to make feasible product improvements to prevent an unreasonable danger can be described as essentially the same thing as negligence.[284] So viewed, proof of feasibility proves negligence, which the original rule is designed to prevent.

It has been contended that the validity of the policy underlying this exclusionary rule has never been empirically established,[285] and that in fact

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278. C. McCormick, Evidence § 275, at 666 (2d ed. 1972).

279. Annot., 74 A.L.R.3d 1001 (1976); 19 For The Defense 124 (July 1978).

280. *See* note 278 *supra.*

281. Annot., 74 A.L.R.3d 1001, 1019 (1976); Fed. R. Evid. 407.

282. Love v. Wolf, 249 Cal. App. 2d 822, 58 Cal. Rptr. 42 (1967); Fed. R. Evid. 407. *Cf.* Haysom v. Coleman Lantern Co., 89 Wash. 2d 474, 573 P.2d 785 (1978) (evidence of subsequent warnings inadmissible where feasibility not in issue and the evidence did not directly contradict defendant's testimony).

283. Smyth v. Upjohn Co., 529 F.2d 803 (3d Cir. 1975); Haysom v. Coleman Lantern Co., 89 Wash. 2d 474, 573 P.2d 785 (1978); Phillips v. J.L. Hudson Co., 79 Mich. App. 425, 263 N.W.2d 3 (1978).

284. *See* notes 148-51 *supra* and accompanying text.

285. Schwartz, *The Exclusionary Rule on Subsequent Repairs—A Rule in Need of Repair,*

it is very doubtful that a rule admitting evidence of post-accident remedial measures would discourage the mass producer of products from undertaking such improvement measures since the risk of liability for not doing so is too great.[286] Perhaps the mass producer is caught between Scylla and Charybdis in this respect. The greater danger, however, may be not that he will fail to make the improvements, but that the jury in spite of instructions to the contrary will use evidence of the improvements as an implied admission of guilt.

The exclusionary rule applies only to improvements made by the supplier after a product-related injury has occurred.[287] Evidence of improvements made between the date of sale of a defective product and the date of injury by that product is not excluded under the rule. This distinction between pre-accident and post-accident improvements seems arbitrary, since the policies supporting the exclusionary rule should apply in either situation. If the manufacturer decides that the safety of his product ought to be improved, he must recognize the risk of injury from products already sold and thus may be discouraged from making the improvement whether or not an injury has actually occurred. Of course if a court is out of sympathy with the rule itself, this limitation on its scope furnishes a welcome means of circumvention.

Another limitation is that the exclusionary rule normally applies only to product improvements made by the defendant himself. It has no application to improvements made by others on the product or on like products.[288] Arguably these others may be discouraged from making their improvements for fear that the evidence will be used against them in some later suit, but the rule is one of evidence narrowly designed to protect only the defendant in pending suits.

Suppliers are unhappy with the rule that admits evidence of product improvements made by others after they have marketed their own product.[289] The concern here is not that the evidence will constitute an admission of guilt by them, or that it will discourage them from making improvements. Rather, they contend the evidence of post-sale improvements unfairly holds them to a later standard of technology, with no proof of its feasibility when they marketed their own product. They should be judged, they contend, by the state of the art at the time of manufacture and not by some later standard.

The state of the art position is questionable on several grounds. Rarely if ever does it appear that subsequent advances were actually infeasible when the product in litigation was manufactured. A manufacturer may not have

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286. Note, *Products Liability and Evidence of Subsequent Repairs*, 1972 DUKE L. J. 837.

287. Good v. A.B. Chance Co., 565 P.2d 217 (Colo. Ct. App. 1977); doCanto v. Ametek, Inc., 328 N.E.2d 873 (Mass. 1975).

288. Annot., 74 A.L.R.2d 1001, § 20 (1976); NUTSHELL, *supra* note 61, at 266. Some courts, however, refuse to admit such evidence. *See* Annot., 74 A.L.R.2d 1001, § 20 (1976).

289. *See* BUSINESS WEEK, Jan. 17, 1977, at 62; *id.*, May 31, 1976, at 60; FORBES, June 15, 1976, at 52; NATION'S BUSINESS, June 1977, at 24; 4 RESEARCH GROUP, INC., FINAL REPORT OF THE LEGAL STUDY 101, 109 (Interagency Task Force on Product Liability, Jan. 1977).

developed the improvement for a number of reasons. If technological infeasibility were the reason, the supplier should have the burden of showing this. Plaintiff's claim may then be reduced to showing the defendant had a continuing duty to correct or warn after the improvement became feasible.[290] The fact that the improvement was later developed, however, should establish a prima facie case of feasibility at the time of manufacture.[291] Evidence of improved safety features in comparable products furnishes one of the principal means of showing defectiveness, and no bright line should be drawn for the admissibility of such evidence based solely on when the improvement was devloped.

A number of cases admit evidence of recall campaigns of like products by the defendant as proof of defectiveness of a product subject to the campaign.[292] Essentially this evidence is but another form of subsequent improvements.[293] Sometimes the recall is governmentally required,[294] and in this situation it is less likely that the factfinder will misuse the evidence as proof of a voluntary admission. Evidence of recall standing alone has been held insufficient to establish defectiveness, but it may be considered along with other evidence on the issue.[295]

E. *Reliance*

Proof of reliance or its equivalent is required when the plaintiff sues on a representational theory of recovery. Thus if he sues in express warranty he must show the warranty was a "basis of the bargain," which is apparently equivalent to reliance.[296] To recover on the implied warranty of fitness for a particular purpose, the plaintiff must establish that he relied on "the seller's skill or judgment to select or furnish suitable goods."[297] If he sues in fraudulent, negligent or innocent tortious misrepresentation, he must prove reliance on the misrepresentation.[298]

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290. *See* note 70 *supra* and accompanying text.

291. *See* Christopherson v. Hyster Co., 58 Ill. App. 3d 791, 374 N.E.2d 858 (1978) (where safety device developed 5 years after product marketed, defendant expected to show "what technological breakthrough" caused this development); General Motors Corp. v. Turner, 567 S.W.2d 812, 820 (Tex. Ct. App. 1978) (subsequently enacted federal standards). *But see* Bruce v. Martin-Marietta Corp., 544 F.2d 442 (10th Cir. 1976) (evidence of safer airplane seat, developed 18 years after manufacture of allegedly defective seat, held irrelevant).

292. Annot., 84 A.L.R.2d 1220 (1978).

293. Manieri v. Volkswagenwerk A.G., 151 N.J. Super. 422, ___, 376 A.2d 1317, 1322 (1977).

294. *See* Fields v. Volkswagen of America, Inc., 555 P.2d 48 (Okla. 1976); *see also* Rimker v. Ford Motor Co., 567 S.W.2d 655 (Mo. App. 1978) (defendant's letter to DOT, required by law, admitted as an admission).

295. Barry v. Manglass, 55 App. Div. 2d 1, 389 N.Y.S. 2d 870 (1976).

296. U.C.C. § 2-313 (1978 offic. text). Comment 3 to this section suggests that the burden of proving nonreliance is on the defendant.

297. U.C.C. § 2-315 (1978 offic. text).

298. Hibschman Pontiac, Inc. v. Batchelor, 362 N.E.2d 845 (Ind. 1977) (deceit); Cunningham v. C. R. Pease House Furnishing Co., 74 N.H. 435, 69 A. 120 (1908) (negligent misrepresentation); Crocker v. Winthrop Laboratories, 514 S.W.2d 429 (Tex. 1974) (innocent misrepresentation).

The reliance requirement applies to these theories of recovery probably because the plaintiff is asserting a claim over and above ordinary expectations. He has special expectations, created by the defendant's representations, and by proving reliance he shows his justification for having these expectations.

The amount of proof that is necessary to establish reliance varies with the circumstances. It is less likely that a person with expert knowledge about a product will be able to show actionable or justified reliance than will a person with no special knowledge of the product.[299] The means at hand for obtaining correct information may be so readily available that a court or jury will find the claimed reliance either unjustified or nonexistent in fact. The seller's known unreliability, or the preposterousness of the representations, may bar recovery.

It is sometimes said that mere "puffing" or sales talk is not actionable.[300] It is true that some statements may be so farfetched, either as a general matter or under the particular circumstances, that reliance will be unjustified. If the seller shows the plaintiff a broken-down automobile and claims it is brand new, the plaintiff will be left with his naivety and without legal remedy if he relies on the statement.

On the other hand, not all sales talk is mere puffing. The seller usually stands in an apparently superior position to know the quality of his goods, and the buyer will often be entitled to rely because of this apparent superiority. The tendency of the law today is to restrict nonactionable sales talk to narrow confines.[301] Moreover, even puffing may have a lulling effect, inducing a false sense of security so as to blunt the effect of warnings or of plaintiff's own contributory negligence.[302]

It is apparently not necessary for the plaintiff himself to rely in order to recover for misrepresentation. The statutory language of the particular purpose warranty and of the express warranty of the UCC indicates that the buyer must rely,[303] but third party beneficiaries can sue for breach of these warranties[304] and there is no indication that they too must rely. Comment *j* to section 402B of the Second Restatement of Torts states that the reliance need not be that of the injured consumer: "It may be that of the ultimate purchaser of the chattel, who because of such reliance passes it on to the consumer who is in fact injured, but is ignorant of the misrepresentation."

The plaintiff's lack of reliance will defeat recovery if the defendant's misrepresentation is not the proximate cause of his injury. A, for example, may buy olives on the representation that they are pitted, and then give them to B who eats them without knowledge of the representation. B may not recover against the seller when he breaks his tooth while eating one of the

299. *See* Wat Henry Pontiac Co. v. Bradley, 202 Okla. 82, 210 P.2d 348 (1949).
300. Florence v. Clinique Laboratories, Inc., 347 So. 2d 1232 (La. Ct. of App. 1977).
301. NUTSHELL, *supra* note 61, at 31-35.
302. *See* Berkebile v. Brantly Helicopter Corp., 225 Pa. Super. Ct. 349, 311 A.2d 140 (1973).
303. U.C.C. §§ 2-313, 2-315 (1978 offic. text).
304. U.C.C. § 2-318 (1978 offic. text).

unpitted olives, if B had no reason to believe the olives were pitted and there were no ordinary or common expectations that olives would be pitted.[305]

Where ordinary expectations are involved, no proof of reliance is required. It can be assumed that the average user expects any product to meet ordinary expectations of safety. This assumption may be dispelled and recovery denied if the plaintiff, before injury, acquires actual knowledge of the product's unsafeness.[306] Proof of this knowledge is an affirmative defense, however, and is not part of plaintiff's case in chief.[307]

V. Defenses

A. *Plaintiff's Misconduct*

Conduct of the plaintiff which may bar his recovery has traditionally been divided into three categories: contributory negligence, implied assumption of risk and misuse of the product.[308] A number of jurisdictions hold that contributory negligence is not a defense to an action in strict liability, while assumption of risk and misuse are.[309] The trend, however, appears to be to treat all three as defenses in strict liability as well as in negligence, and this is especially so in jurisdictions which have adopted a comparative fault or comparative causation approach in strict product liability cases.[310] This trend seems sound, since the three defenses have many common elements. When a comparative fault or causation approach is used, plaintiff's misconduct will normally reduce damages rather than bar recovery entirely.[311] Where the defendant is guilty of intentional or reckless misconduct, it is usually held that contributory negligence is no defense.[312] A misrepresentation, whether culpable or innocent, induces reliance thereby mitigating the effect of plaintiff's misconduct.[313]

In the overwhelming majority of cases, the issue of whether plaintiff's conduct bars or reduces recovery is treated as a question of fact for the jury.[314] This approach is sound, since a finding of contributory negligence depends on all the facts and circumstances, assumption of risk involves a subjective

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305. *See* Hochberg v. O'Donnell's Restaurant, Inc., 272 A.2d 846 (D.C. 1971).

306. Erdman v. Johnson Bros. Radio & Telev. Co., 260 Md. 190, 271 A.2d 744 (1970).

307. *See* § V.A. *infra.*

308. Prosser, *supra* note 2, § 102.

309. *E.g.*, Greeno v. Clark Equip. Co., 237 F. Supp. 427 (N.D. Ind,1965).

310. *See* Stueve v. Amer. Honda Motors Co., Inc., 457 F. Supp. 740 (D. Kan. 1978); Comment, *Comparative Negligence and Strict Products Liability*, 38 Ohio St. L.J. 883 (1977); Fischer, *Products Liability—Applicability of Comparative Negligence to Misuse and Assumption of Risk*, 43 Mo. L. Rev. 643 (1978).

311. C.R. Heft and C. J. Heft, Comparative Negligence Manual §§ 1.10-.70 (1971). If the jurisdiction has adopted some contributory negligence system other than pure comparative negligence, then at some point (typically when the plaintiff's negligence is as great as or greater than that of the defendant) contributory negligence will constitute a complete bar. *Id.*

312. Restatement (Second) of Torts §§ 481-82.

313. *See* § IV.E. *supra.*

314. *See, e.g.*, Rossman v. La Grega, 28 N.Y.2d 300, 270 N.E.2d 313, 321 N.Y.S.2d 588 (1971).

state of mind and often an element of compulsion, and misuse turns on the flexible concept of foreseeability. Occasionally, however, plaintiff's misconduct will be so flagrant as to bar recovery as a matter of law.[315]

If the product is defective, the question of the foreseeability of misuse is almost always one of fact.[316] Where the product is sound, there is no need to speak in terms of the defense of misuse since plaintiff has not established his case in chief by proving defectiveness.[317] If a shovel is not adequate for the ordinary purpose of shoveling and it breaks as a result of the inadequacy causing injury, the fact that it broke while being used to prop open a door will probably not bar recovery since this unusual use may be foreseeable—or at least a jury could so find. If on the other hand the shovel broke because the strain of using it as a door prop was greater than normal for shoveling, it probably makes more sense to say the shovel was not defective.[318]

Issues of defectiveness and foreseeability merge in some instances, and a sufficiently established use may require the supplier to modify his product or his warnings where feasible. If stevedores customarily walk on packaged doors when stowing them in ship holds, the packer may be required to anticipate this custom and either pack the doors so they do not contain a dangerously concealed well of window openings or else warn of the concealed well.[319]

In many cases foreseeability does not turn on actual prior usage, where a particular use can reasonably be anticipated and guarded against by the supplier. This is especially so if the risk can be easily avoided, as by warning. A manufacturer for example may be required to warn against the flammable characteristics of its spray deodorant, even though it has never heard of an injury resulting from the product's combustibility prior to the injury in litigation.[320]

In other situations, the product cannot feasibly be designed more safely and a warning of the risk would add nothing to common knowledge. Gasoline

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315. Usually such cases involve plaintiff's knowing and voluntary confrontation of the danger, *e.g.*, Orfield v. Int'l Harvester Co., 535 F.2d 959 (6th Cir. 1975). A question of fact is normally presented when the plaintiff is required to work in a place of danger. Robertson v. Swindell-Dressler Co., 82 Mich. App. 382, ____, 267 N.W.2d 131, 136-37 (1978). *See also* note 130 *supra*.

316. *See* LeBouef v. Goodyear Tire & Rubber Co., 451 F. Supp. 253 (W.D. La. 1978) (high speed use of tire); Hasson v. Ford Motor Co., 564 P.2d 857, 138 Cal. Rptr. 705 (1977) (brake abuse); Knapp v. Hertz Corp., 59 Ill. App. 3d 241, 375 N.E.2d 1349 (1978) (emergency brake partially on); Torke, *Forseeability in Product Design and Duty to Warn Cases*, 1968 WIS. L. REV. 228.

317. Kudelka v. American Hoist & Derrick Co., 541 F.2d 651 (7th Cir. 1976) (fact question); Tibbetts v. Ford Motor Co., 358 N.E.2d 460 (Mass. App. 1976) (burr on inner edge of slot in automobile wheel cap not a defect; plaintiff injured by his own abnormal conduct in removing cap with bare hands).

318. *Cf.* Newman v. Utility Trailer & Equip. Co., 278 Or. 395, ____, 564 P.2d 674, 676-77 (1977).

319. Simpson Timber Co. v. Parks, 369 F.2d 324 (9th Cir. 1965), *vacated*, 388 U.S. 459, *reh. denied*, 389 U.S. 909 (1967). Unintended uses of a product, even though foreseeable, may however go to issues of contributory negligence and assumption of the risk.

320. Moran v. Faberge, Inc., 273 Md. 538, 332 A.2d 11 (1975).

will give off lethal carbon monoxide as a result of partial combustion, but this danger cannot feasibly be eliminated and a warning of the risk would probably add nothing to common knowledge. Most negligent asphyxiations by carbon monoxide from gasoline occur because the victim fails to realize he is in a dangerously enclosed space with the CO fumes, and a warning of the risk of asphyxiation for example on gasoline pumps would provide no protection.

B. *Third Party Failure to Prevent Injury*

A product injury may be caused in whole or in part by the culpable conduct of a third party, that is, by one other than the plaintiff or the defendant supplier. If that conduct involves misuse or alteration of the product, the issues of defectiveness and foreseeability are the same as those already considered. If third-party misconduct does not defeat recovery by negating defectiveness or constituting the sole proximate cause of the plaintiff's injury, then the third party is merely a co-tortfeasor with the defendant supplier. The third party may be joinable as an additional defendant or as a third-party defendant in the products liability litigation.

The third party's misconduct may involve knowledge of the danger or negligent failure to discover it, combined with his failure to prevent the injury, even though he has done nothing to alter or misuse the product. Here the third party may be legally responsible to the plaintiff because he owes a duty to use care toward him. Some courts are more inclined to release the defendant supplier from liability when the third party has actual knowledge of the danger than when he is negligently ignorant of it.[321] This distinction seems untenable. The third party rarely actually intends to cause the plaintiff injury. Where there is no such intent, the third party's failure to prevent the injury is attributable to his inadvertence, regardless of whether he actually knew or merely should have known of the danger.

A different situation is presented where the third party receives a warning of the danger, and fails to pass it on to the plaintiff or otherwise fails to prevent the injury. If warning the third party is all that is needed to render the product reasonably safe, then the supplier's duty to the plaintiff may be fulfilled. Such situations can occur where an adequate warning is given to a prescribing doctor,[322] to the plaintiff's supervisor,[323] the parent of a minor[324] or to a product installer regarding proper installation.[325] If on the other hand

321. NUTSHELL, *supra* note 98, at 212-16. Intervening criminal acts may be unforeseeable as a matter of law. Williams v. RCA Corp., 59 Ill. App. 3d 229, 376 N.E.2d 37 (1978) (guard shot by robber, unable to obtain help because of failure of two-way portable receiver). *But see* Klages v. Gen'l Ordinance Equip. Corp., 240 Pa. Super. Ct. 356, 367 A.2d 304 (1976) (recovery allowed where plaintiff shot by robber when defendant's mace weapon failed).

322. Terhune v. A. H. Robins Co., 90 Wash. 2d 9, 577 P.2d 975 (1978). *See* note 196 *supra* and accompanying text.

323. Bryant v. Hercules, Inc., 325 F. Supp. 241 (W.D. Ky. 1970); Bohnert Equip. Co. v. Kendall, 569 S.W.2d 161 (Ky. 1978).

324. Spruill v. Boyle-Midway, Inc., 308 F.2d 79 (4th Cir. 1962).

325. Eyster v. Borg-Warner Corp., 131 Ga. App. 702, 206 S.E.2d 668 (1974).

the likelihood that the third person will disregard the warning is sufficiently great, then the product may be defective unless some additional precaution is taken, e.g., where a warning is given directly to the plaintiff.[326]

A common situation of third party misconduct occurs where another supplier fails to prevent the injury.[327] The other supplier may either be the one who supplies to, or the one who is supplied by the defendant supplier. Rarely does another supplier's failure to prevent the injury release a defendant supplier from liability to the plaintiff. Such liability is imposed even though the defendant supplier expressly requests another supplier to eliminate or prevent the danger.[328] As far as the plaintiff is concerned the suppliers are treated alike, although one may have a claim over against the other.

Also common is the failure of a plaintiff's employer to prevent danger of which the employer knew or should have known. This situation arises frequently with regard to inadequate safety devices on industrial machinery. Here again the employer's misconduct rarely releases the product supplier from liability for work-related product injuries.[329] Moreover, often the employer will have a claim over against the product supplier for any worker's compensation payments made to the injured employee, and the supplier is often barred by worker's compensation law from asserting a claim against the employer.[330]

C. *Statute of Limitations*

Since products liability cuts across the fields of both contract and tort law, a problem arises as to whether the applicable jurisdiction's contract or tort statute of limitations applies. Most jurisdictions have a one-to-three-year statute of limitations for tortious injury to person or property, and usually a longer period for breach of contract.[331] In the case of the sale of goods, the Uniform Commercial Code provides a four year period.[332] In addition, there is usually a separate period for wrongful death claims[333] and for claims in indemnity or contribution.[334]

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326. Note 197 *supra*; Hall v. E. I. Du Pont de Nemours & Co., 345 F. Supp. 353 (E.D.N.Y. 1972).

327. Jackson v. Coast Paint & Lacquer Co., 499 F.2d 809 (9th Cir. 1974); West v. Broderick & Bascom Rope Co., 197 N.W.2d 202 (Iowa 1972).

328. Pan-Alaska Fisheries, Inc. v. Marine Constr. & Design Co., 565 F.2d 1129 (9th Cir. 1977); d'Hedouville v. Pioneer Hotel Co., 552 F.2d 886 (9th Cir. 1977); 21 ATLA. L. REP. 198-200 (June 1978).

329. *See* Balido v. Improved Machinery, Inc., 29 Cal. App. 3d 633, 105 Cal. Rptr. 890 (1973); note 156 *supra* and accompanying text.

330. *See* § V.I. *infra*.

331. [1978] PROD. LIAB. REP. (CCH) ¶ 3420; [1979] PROD. LIAB. REP. (CCH) ¶ 3440.

332. U.C.C. § 2-75. It has been held that the warranty statute of limitations applies to the sale of goods, to the exclusion of the contract statute of limitations. Big D Service Co. v. Climatrol Industries, Inc., 514 S.W.2d 148 (Tex. Ct. App. 1974).

333. [1978] PROD. LIAB. REP. (CCH) ¶ 3460.

334. Bay Ridge Air Rights, Inc. v. State, 375 N.E.2d 29 (N.Y. 1978); NUTSHELL, *supra* note 98, at 329-30.

Not only do the tort and warranty periods of limitation usually differ but the statutes may differ also as to when the period will begin to run. Typically under a tort statute of limitations for personal injury or property damage the cause of action accrues, and the period begins to run, either from the date of injury or the date when the plaintiff actually discovers or reasonably should have discovered the injury.[335] Section 2-725(2) of the Uniform Commercial Code, on the other hand, provides:

> A cause of action accrues when the breach occurs, regardless of the aggrieved party's lack of knowledge of the breach. A breach of warranty occurs when tender of delivery is made, except that where a warranty explicitly extends to future performance of the goods and discovery of the breach must await the time of such performance the cause of action accrues when the breach is or should have been discovered.

Unless the "explicit extension" exception applies, it is possible for the warranty statutory period to run before the injury occurs.

In determining the applicable statute of limitations in products cases for physical injury to person or property, the courts usually take one of two approaches: (1) they find that the "gist of the action" is either in warranty or in tort, usually the latter, and that, therefore, suit can be brought only under the statute that describes this gist;[336] or (2) they give the plaintiff his choice of statutes, depending on whether he pleads warranty, tort, or both.[337] For purposes of determining the applicable statute, strict liability under section 402A of the Second Restatement of Torts is usually treated along with negligence as a tort rather than as warranty.[338]

Some state legislatures have enacted an outside cutoff period usually between six and ten years, running from the date of original delivery of the product, during which all products liability suits are to be brought regardless of the theory of suit.[339] These statutes have the arguable virtue of certainty, but the period chosen is arbitrary since it has no particular relation either to the expectable life of many products or to the period within which many injuries are likely to occur. Moreover, one or more of the tolling exceptions discussed hereafter may apply to such statutes thus subverting the single

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335. Cannon v. Sears Roebuck & Co., 374 N.E.2d 582 (Mass. 1978) (date of injury accrual, policy discussed); Raymond v. Eli Lilly & Co., 117 N.H. 294, 371 A.2d 170 (1977) (liberal discovery rule); Burd v. N.J. Tel. Co., 386 A.2d 1310 (N.J. 1978) (cause accrues when credible basis for inferring liability arises). The product may cause separate injuries, for which different discovery dates apply. *See, e.g.*, Goodman v. Mead Johnson & Co., 534 F.2d 566 (3d Cir. 1976).

336. Kinney v. Goodyear Tire & Rubber Co., 134 Vt. 571, 367 A.2d 677 (1976).

337. Layman v. Keller Ladders, Inc., 224 Tenn. 396, 455 S.W.2d 594 (1970). It has been held that the warranty statute of limitations applies to parties in privity while the tort statute applies to those not in privity. Hauson v. Amer. Motors, 83 Mich. App. 553, 260 N.W.2d 222 (1978).

338. Victorson v. Bock Laundry Mach. Co., 37 N.Y.2d 395, 402, 335 N.E.2d 275, 278, 373 N.Y.S.2d 39, 43 (1975).

339. N. Carolina State Ports Author. v. Lloyd A. Fry Roofing Co., 82 N.C. App. 400, 232 S.E.2d 846 (1977); Cavan v. General Motors Corp., 280 Or. 455, 571 P.2d 1249 (1977); PROD. LIAB. REP. (CCH), *Rep. Letters* nos. 386-388, 390, 392, 395; 22 PI NEWSL. No. 7 (Oct. 2, 1978).

virtue of certainty they are supposed to have.[340]

A number of product injuries are cumulative, with the damage occurring over an extended period of time although not becoming apparent until the end of the period. Products claims arising from such injuries pose difficult statutes of limitations problems. One approach is to require the plaintiff to apportion his damages between those occurring within and those outside the statutory period, or deny recovery if this cannot be done. Another is to permit recovery for all damage, regardless of when it occurred, as long as some of it occurs within the statutory period.[341] The second approach is preferable, since the first may impose an impossible burden of proof on the plaintiff while exculpating a continuing tortfeasor.

There are a number of events that traditionally toll statutes of limitations, that is, keep the statutory period from running as it would otherwise do. These include fraudulent concealment of the claim by the defendant, infancy of the plaintiff, absence of the defendant from the jurisdiction and for warranty, a breach that explicitly extends to future performance.[342] The scope of the explicit extension exception is unclear, and it appears not to be coextensive with express warranties.[343] Additionally, an exception especially applicable in products cases is that arising where the defendant has a continuing duty to warn or correct. Here the continuance of the duty causes the statutory period to begin anew each day that the duty is breached.[344]

Common sense should counsel legislatures to enact a single comprehensive statute of limitations for all products claims. Absent such legislative innovation, the plaintiff probably should have his choice of statutes according to the nature of the substantive claim he pleads, in line with the general tort approach of granting the plaintiff his choice of remedies.[345]

D. *Notice of Breach*

Section 2-607(3)(a) of the Uniform Commerical Code provides:

> (3) Where a tender has been accepted
> (a) the buyer must within a reasonable time after he discovers or should have discovered any breach notify the seller of breach or be barred from any remedy;

Comment 5 to this section makes clear that this notice requirement extends to third party beneficiaries of any warranty as well as to buyers.[346] The pur-

340. *See* Phillips, *supra* note 187.

341. *Id.* at 667-68.

342. *Id.*

343. *Id.* at 669. *But see* Standard Alliance Industries v. The Black Clawson Co., PROD. LIAB. REP. (CCH) ¶ 8289 (6th Cir. 1978) (there must be an explicit reference to future time in an express warranty in order for the explicit-extension exception to apply).

344. Handler v. Remington Arms Co., 144 Conn. 316, 130 A.2d 793 (1957).

345. *See* note 114 and accompanying text *supra.*

346. It has been held that a discaimer is not binding on UCC third party beneficiaries who are not parties to the sales agreement, Velez v. Craine & Clark Lumber Corp., 33 N.Y.2d 117, 305 N.E.2d 750, 350 N.Y.S.2d 617 (1973), although comment 1 to section 2-318 states that

pose of the requirement is to prevent stale claims, and to enable the seller to make an early investigation hopefully leading to a satisfactory settlement of the claim.[347] The requirement has given plaintiffs a great deal of trouble, particularly when construed to require early, detailed notice of the claim and an assertion of defendant's legal liability. It "may prove a trap to the unwary victim who will generally not be steeped in the 'business practice' which justifies the rule."[348]

The language of the statute, barring the buyer from "any remedy" when seasonable notice is not given, is broad enough to reach any claim whether based on fraud, negligence, strict tort or warranty. A requirement of notice has not been imposed, however, where products claims are asserted in fraud or negligence, perhaps because these have traditionally been regarded as nonsales areas encompassing many types of claims other than those for defective products.

In the field of warranty, the requirement has not always been either uniformly or rigorously applied. Exceptions have been made when the claim involves personal injuries, or when the plaintiff and defendant are not in privity of contract.[349] Even when applied, generous allowance has been made for delays caused by the plaintiff's physical incapacity.[350]

One of the reasons for the development of the common law doctrine of strict liability in tort was to circumvent the notice requirement. As Justice Traynor observed in *Greenman v. Yuba Power Products, Inc.*, " '[t]he remedies of injured consumers ought not be to made to depend upon the intricacies of the law of sales.' "[351] The court held in *Greenman* that strict liability against the seller of defective products was more appropriately described as an action in tort rather than in warranty, and that notice of breach was unnecessary.

Strict liability in tort, under section 402A of the Second Restatement of Torts, by its terms applies only when the plaintiff has suffered physical injury to person or property. Accordingly, notice of breach has been required as a condition to asserting a strict liability claim when the plaintiff has suffered

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disclaimers are "equally operative against beneficiaries of warranties under this section." If the requirement of notice is viewed as a condition of the sales agreement, then it may also not apply to third party beneficiaries. *See* note 349 *infra*.

347. Phillips, *Notice of Breach in Sales And Strict Tort Law: Should There Be A Difference?*, 47 IND. L.J. 457, 465-70 (1972).

348. James, *Products Liability*, 34 TEX. L. REV. 192, 197 (1955).

349. *See* Mattos v. Hash, 279 Md. 371, 368 A.2d 993 (1977); Fischer v. Mead Johnson Laboratories, 41 App. Div. 2d 737, 341 N.Y.S.2d 257 (1973); PROSSER, *supra* note 2, at 655.

350. Bonker v. Ingersoll Products Corp., 132 F. Supp. 5 (D. Mass. 1955); Whitfield v. Jessup, 31 Cal. 2d 826, 193 P.2d 1 (1948). Delay may also be justified on grounds of reasonable failure to discover defendant's product as the cause of injury. Goldstein v. G.D. Searle & Co., 62 Ill. App. 3d 344, 378 N.E.2d 1083 (1978). Timely notice from a nonbuyer may be dispensed with where the defendant is unable to show prejudice. Deveney v. Rheem Mfg. Co., 319 F.2d 124 (2d Cir. 1963).

351. 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962) (quoting from Ketterer v. Armour & Co., 200 F. 322, 323 (S.D.N.Y. 1912)).

only economic loss.[352] The requirement has also been imposed for a strict liability claim resulting in physical injury only to the product itself.[353]

While it seems undesirably rigid to require prompt notice as a condition to bringing a products liability action, unseasonable delay in asserting a claim is one factor that the jury should be able to consider in determining the claim's legitimacy. Notice is useful to the defendant, and the plaintiff's unexplained failure to give it may raise doubts about his good faith belief in the claim's validity. Absence of notice without more, however, should not constitute a defense as a matter of law.

E. *Absence of Privity*

The defense of lack of privity of contract for years remained a major block to the development of products liability law. The American courts followed the nineteenth century English case of *Winterbottom v. Wright*[354] in requiring privity of contract for products liability actions based on negligence. Exceptions to the rule were recognized for misrepresentation, and for products found to be "imminently" or "inherently" dangerous to life or health when in a defective condition. Finally in 1916, in the landmark case of *MacPherson v. Buick Motor Co.*,[355] Judge Cardozo construed the concept of imminent danger so broadly that the exception swallowed the rule over the course of years. *MacPherson* became the rule throughout the United States.

A similar requirement of privity was long imposed in warranty, with exceptions sometimes recognized for breach of an express warranty and for the sale of contaminated food. In the 1960 case of *Henningsen v. Bloomfield Motors, Inc.*,[356] the New Jersey Supreme Court led the way in eliminating the privity requirement in personal injury actions based on breach of implied warranty. "In that way," the court said, "the burden of loss consequent on use of defective articles is borne by those who are in a position to either control the danger or make an equitable distribution of the losses when they do occur."[357] Three years later the California Supreme Court, in *Greenman v. Yuba Power Products, Inc.*,[358] followed suit by abolishing the privity requirement under a strict products liability theory; the action, the court said, was more appropriately described as a suit "of strict liability in tort"[359] rather than warranty. In 1965 the American Law Institute adopted the strict products liability in tort provision of Restatement (Second) of Torts section 402A, a prominent feature of which is the elimination of the privity requirement.

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352. Standard Alliance Industries v. The Black Clawson Co., 587 F.2d 813 (6th Cir. 1978); Morrow v. New Moon Homes, Inc., 548 P.2d 279 (Alaska 1976).

353. Salmon Rivers Sportsman Camps, Inc. v. Cessna Aircraft, 97 Idaho 348, 544 P.2d 306 (1975).

354. 10 M. & W. 109, 152 Eng. Rep. 402 (1842).

355. 217 N.Y. 382, 111 N.E. 1050 (1916).

356. 32 N.J. 358, 161 A.2d 69 (1960).

357. *Id.* at ____, 161 A.2d at 81.

358. 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962).

359. *Id.* at ____, 377 P.2d at 901, 27 Cal. Rptr. at 701.

Since 1965, section 402A has become the principal means for imposing strict products liability. A substantial majority of the jurisdictions have now adopted this section, usually by judicial decision, as the controlling law of the jurisdiction.[360] Indeed, its principle has been extended to bystanders who, "[i]f anything," said the California Supreme Court, "should be entitled to greater protection than the consumer or user" who can at least inspect the product and limit purchases to articles manufactured and sold by reputable suppliers.[361] Rescuers have also been accorded protection under section 402A where they attempt to save someone injured by a defective product and are themselves injured in the attempt.[362]

The defendant may owe no duty to certain categories of persons, whether or not privity exists. Absence of duty may preclude recovery by minors who should be protected by adults,[363] by experts who should be familiar with the product and its hazards[364] and by plaintiffs when their own conduct or that of another is treated as the sole proximate cause of injury.[365] In addition, as discussed in the next section, some courts hold that a supplier of a defective product causing economic loss only is not liable to the person suffering the loss unless there is privity of contract between that person and the supplier.

1. *Where Only Economic Loss is Sustained*

There is a division of authority as to whether plaintiffs can recover against remote suppliers when a defective product causes only economic or pecuniary loss.[366] Economic loss is usually held to include loss of bargain, lost profits and cost of repair or replacement where no physical damage is involved.[367] Some courts extend the concept of economic loss to include physical damage to the product itself,[368] but most courts hold that physical damage involving an accident or traumatic injury comes within normal tort principles and recovery is allowed without regard to the presence or absence of an

360. [1977] PROD. LIAB. REP.(CCH) ¶ 4060.

361. Elmore v. American Motors Corp., 70 Cal. 2d 578, 451 P.2d 84, 89, 75 Cal. Rptr. 652 (1969).

362. Guarino v. Mine Safety Appliance Co., 25 N.Y.2d 460, 255 N.E.2d 173, 306 N.Y.S.2d 942 (1969). Products liability has been extended to permit recovery by a professional rescuer (a fireman) injured by defendant's allegedly defective product. Court v. Grzelinski, 72 Ill. 2d 141, 379 N.E.2d 281 (1978). *But see* Pegg v. General Motors Corp., 391 A.2d 1074 (Pa. Super. 1978) (equally divided court affirmed directed verdict against thief of defendant's product on grounds that no duty was owed him).

363. Winnett v. Winnett, 57 Ill. 2d 7, 310 N.E.2d 1 (1974) (decision placed on grounds of lack of foreseeability).

364. Martinez v. Dixie Carriers, Inc., 529 F.2d 457 (5th Cir. 1976).

365. *See* §§ V.A., V.B. *supra.*

366. *See* Edmeades, *The Citadel Stands: The Recovery of Economic Loss in American Products Liability*, 27 CASE WEST. RES. L. REV. 647 (1977).

367. Clark v. Int'l Harvester, 99 Idaho 326, ____, 581 P.2d 784, 790-94 (1978); Alfred N. Koplin & Co. v. Chrysler Corp., 49 Ill. App. 3d 194, 364 N.E.2d 100 (1977); Cova v. Harley Davidson Motor Co., 26 Mich. App. 602, ____, 182 N.W.2d 800, 811 (1970).

368. Mid Continent Aircraft Corp. v. Curry County Spray Serv. Inc., 572 S.W.2d 308, 310-12 (Tex. 1978).

agreement or of privity.[369]

Those courts denying recovery for economic loss usually rely on the rationales advanced in *Seely v. White Motor Co.*[370] There the court held that the plaintiff, who was the puurchaser of a truck manufactured by defendant, could not recover in strict tort for money paid on the purchase price of the truck and for lost profits allegedly caused by the truck's "galloping." To hold the defendant liable for these damages, the court said, would be to make it responsible for business losses of truckers "caused by the failure of its trucks to meet the specific needs of their businesses, even though those needs were communicated only to the dealer. Moreover, this liability could not be disclaimed, for one purpose of strict liability in tort is to prevent a manufacturer from defining the scope of his responsibility for harm caused by his products." The court noted that section 402A of the Second Restatement of Torts "limits liability to physical harm to person or property," and that "[e]ven in actions for negligence, a manufacturer's liability is limited to damages for physical injuries and there is no recovery for economic loss alone." To hold the manufacturer responsible solely for economic loss caused by a defective product, absent any agreement to that effect, would subject him to liability "for damages of unknown and unlimited scope."[371]

The *Seely* rule applies only where there is no physical injury to person or property.[372] If physical injury occurs, the economic loss is then recoverable along with the damages for physical injury either in negligence or in strict tort liability.

Also, the rule normally applies to prohibit recovery in implied warranty or negligence only when there is no agreement and no opportunity to agree.[373] If the parties are in privity of contract, there is an opportunity to limit or exclude damages for economic loss by agreement. Absent any express agreement, the parties can be deemed to have impliedly agreed that such damages are recoverable. The presence of privity generally would not usually give rise to a claim in strict tort for economic loss only, however, in view of the generally accepted proposition that strict tort applies only to claims involving physical injury to person or property and that damages therefor are not disclaimable in strict tort.

Even in the absence of privity, the manufacturer may expressly warrant his product. He will be liable for economic loss resulting from breach of this warranty if he does not effectively limit his liability in this regard. In *Seely* the manufacturer was held liable because in its standard motor vehicle warranty it expressly agreed to replace or repair any defects in workmanship and

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369. Cloud v. Kit Mfg. Co., 563 P.2d 248 (Alaska 1977); J. WHITE AND R. SUMMERS, UNIF. COMM. CODE HANDBOOK § 11-5 (1972).

370. 63 Cal. 2d 9, 403 P.2d 145, 45 Cal. Rptr. 17 (1965).

371. *Id.* at ___, 403 P.2d at 151, 45 Cal. Rptr. at 22-23.

372. *Id.* at ___, 403 P.2d at 152, 45 Cal. Rptr. at 25-26.

373. Trans World Airlines, Inc. v. Curtiss-Wright Corp., 1 Misc. 2d 477, ___, 148 N.Y.S.2d 284, 288-89 (1955). *But see* Clark v. Int'l Harvester, 99 Idaho 326, ___, 581 P.2d 784, 790-94 (1978), holding that there may be no recovery in negligence for economic loss alone even against a defendant with whom there is privity.

material. It breached this warranty of repair, thus relegating plaintiff to his remedies at law including the right to recover for his economic loss.[374]

In *Ford Motor Co. v. Lonon*,[375] the court held that economic loss alone is recoverable in strict tort liability against a remote manufacturer for public misrepresentation.[376] Since tort liability for innocent public mistrepresentation is apparently not disclaimable,[377] the *Lonon* holding seems to conflict with one of the rationales of the *Seely* decision. In *Seely* the defendant's misrepresentation was treated as an express warranty, and it was recognized that the defendant could have limited his liability under the Uniform Commercial Code had it not failed to perform its limited remedy of repair.

The reasons advanced for the *Seely* holding are questionable. As the dissent points out,[378] no special expectations were involved since one ordinarily expects a truck not to "gallop." The liability is no more unlimited than it is for personal injuries. Whether the defendant should be able to limit his damages ought to be determined not by the nature of the damages, but by the same inquiries that apply to products law in general.[379] Since the defendant supplier is usually in the best position to prevent loss and equitably to spread the risk of the losses that occur from defectively manufactured products, he should be liable.

The leading case imposing strict liability in tort against a remote manufacturer for the sale of a defective product causing only economic loss is *Santor v. A and M Karagheusian, Inc.*[380] The manufacturer produced a rug with "line" that would not walk out with use. The purchaser sued the manufacturer for loss of bargain, and was allowed to collect. The manufacturer had advertised the rug as "Grade #1," but the presence of this advertising was not considered by the court as necessary to the decision. Recognizing that

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374. Seely v. White Motor Co., 63 Cal. 2d at ___, 403 P.2d at 152, 45 Cal. Rptr. at 24. *See also* Clark v. Int'l Harvester, 99 Idaho 326, 581 P.2d 784 (1978).

375. 217 Tenn. 400, 398 S.W.2d 240 (1966).

376. The *Lonon* decision relied upon a tentative draft, Restatement (Second) of Torts § 552D, that was ultimately not adopted by the American Law Institute. However, the Institute did adopt section 552C, which allows tort recovery of only loss of value for innocent misrepresentation. Miller v. Bare, 457 F. Supp. 1359 (W.D. Pa. 1978). For a criticism of tort recovery for economic loss alone, see Hill, *Breach of Contract As A Tort*, 74 COLUM. L. REV. 40 (1974).

377. Cooper Paintings and Coatings, Inc. v. SCM Corp., 62 Tenn. App. 13, 457 S.W. 2d 864 (1970).

378. Seely v. White Motor Co., 63 Cal. 2d at ___, 403 P.2d at 153, 45 Cal. Rptr. at 28.

379. It has been held that strict tort liability for physical damage to property can be disclaimed between equal bargainers. K-Lines v. Roberts Motor Co., 273 Or. 242, 541 P.2d 1378 (1975). *See* McNichols, *Who Says That Strict Tort Disclaimers Can Never Be Effective? The Courts Cannot Agree*, 28 OKLA. L. REV. 494 (1975). *See* § V.F. *infra*.

380. 44 N.J. 52, 207 A.2d 305 (1965). Suit in implied warranty without privity has also been allowed, although here contract principles may apply including disclaimer of liability. *See* Morrow v. New Moon Homes, Inc., 548 P.2d 279 (Alaska 1976). *Compare* Gauthier v. Mayo, 77 Mich. App. 513, 258 N.W.2d 748 (1977) (suit for recission against remote manufacturer allowed) *with* Harrington v. Holiday Rambler Corp., 575 P.2d 578 (Mont. 1978) (denied).

One court has upheld the right to sue in negligence without privity for solely economic loss. Berg v. General Motors Corp., 87 Wash. 2d 584, 555 P.2d 818 (1976); *contra* Alfred N. Koplin & Co. v. Chrysler Corp., 49 Ill. App. 3d 194, 364 N.E.2d 100 (1977).

recovery in strict liability "had its gestative stirrings because of the greater appeal of the personal injury claim," the court nevertheless concluded that recovery for economic loss only was equally appropriate as an obligation of "enterprise liability." Whether the damages involve personal injury or economic loss, "the great mass of the purchasing public has neither adequate knowledge nor sufficient opportunity to determine if articles bought or used are defective" and they rely on the skill of the maker to furnish a sound product.[381] The court recognized that the liability being imposed could properly be described as strict tort liability.

The plaintiff in economic loss cases is usually the purchaser of the product. Tort law has traditionally shown little sympathy for economic losses caused by torts committed against property not owned by the plaintiff.[382] However, there is no reason why products liability claims for economic losses need be so restricted. Liability should turn on the foreseeability of the plaintiff's injury. If the defendant manufactures a defective tractor, it is arguably foreseeable not only that the owner may lose his crop as a result, but also that a neighbor who expects to borrow the tractor to harvest his own crop may suffer similar damages. The liability of the tractor manufacturer to various parties who have entered into contractual or business relations with the tractor owner, and who suffer economic harm because of the tractor's defect, may however depend on the law governing tortious interference with contractual and business relations.[383]

F. *Disclaimers of Liability*

1. *Fraud, Statutory Violations and Negligence*

A disclaimer of liability for wilful, wanton or intentional misconduct is unenforceable as against public policy.[384] Some courts have held that disclaimers of statutorily imposed duties are unenforceable for the same reason.[385] Likewise, it has been held that a disclaimer of negligence liability is against public policy, although the majority rule probably is that negligence can be disclaimed if the intent to do so is clear.[386] To establish clarity usually the disclaimer must mention negligence or fault.[387]

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381. Santor v. A and M Karagheusian, Inc., 44 N.J. at ____, 207 A.2d at 309, 312.

382. *See* Union Oil Co. v. Oppen, 501 F.2d 558 (9th Cir. 1974); Petitions of Kinsman Transit Co., 388 F.2d 821 (2d Cir. 1968); James, *Limitations On Liability For Economic Loss Caused By Negligence: A Pragmatic Appraisal*, 25 VAND. L. REV. 43 (1972).

383. Tort liability for interference with prospective economic advantage normally requires proof of actual intent to interfere. PROSSER, *supra* note 2, at 130.

384. *Id.* at 444-45.

385. Mulder v. Casho, 61 Cal. 2d 633, 394 P.2d 545, 39 Cal. Rptr. 705 (1964).

386. Neville Chem. Co. v. Union Carbide Corp., 422 F.2d 1205 (3d Cir. 1970); Lincoln Pulp & Paper Co. v. Dravo Corp., 436 F. Supp. 262 (N.D. Me. 1977). A disclaimer of negligence will likely be struck down as against public policy if the defendant is a common carrier, public utility, public bailee or one in a dominant position in the marketplace. PROSSER, *supra* note 2, at 442-44; 45 TENN. L. REV. 783 (1978).

387. Neville Chem. Co. v. Union Carbide Corp., 422 F.2d 1205 (3d Cir. 1970); Lincoln Pulp & Paper Co. v. Dravo Corp., 436 F. Supp. 262 (N.D. Me. 1977).

2. *Strict Tort*

Comment *m* to section 402A of the Second Restatment of Torts states that disclaimers of liability are ineffective in strict tort, presumably because they are against public policy. It is unclear whether this policy is determined by the type of damages involved, or by the status of the plaintiff. The section is limited to liability against sellers of unreasonably dangerous products "for physical harm thereby caused to the ultimate user or consumer, or to his property."[388] Thus if physical harm is not involved, the section by its terms is inapplicable. As noted in the preceding section,[389] some courts have allowed strict liability recovery of economic loss without privity of contract, but it is uncertain whether these same courts would invalidate a disclaimer of economic loss in strict tort.

Probably in determining the validity of disclaimers the important consideration should be the status of the plaintiff rather than the type of damage incurred. Users and consumers, as described in comment *l* to section 402A of the Second Restatement of Torts, are lay persons with no special expertness regarding the product used or consumed. If the plaintiff is a bystander, he has no opportunity to enter into a contractual arrangement with the seller, and any disclaimer should be ineffective as to him regardless of whether he is either a lay person or one with expert knowledge regarding the product.

Where contractual privity exists, recent cases bear out the conclusion that the status of the plaintiff rather than the nature of the damage is controlling in determining the validity of disclaimers in strict tort. In *K-Lines v. Roberts Motor Co.*,[390] for example, the court upheld a contractual limitation of remedies between a truck manufacturer and distributor, on the one hand, and on the other a truck line which purchased five trucks from the other contracting parties. Allegedly as a result of a manufacturing defect one of the trucks went out of control causing physical damage to the truck. The sellers had limited their liability by contract to repair or replacement of any defective part. The court held this limitation was effective as between equal bargainers to exclude liability in strict tort. The fact that one party "may possess greater financial resources than another is not proof that such a disparity of bargaining power exists." Nor need the terms be negotiated by "offers and counter-offers."[391]

Apparently the important considerations are the merchant or businessperson status of the buyer, and the lack of overreaching or of unfair surprise in the contract negotiations. Where these considerations are present, both parties are reasonably capable of equitably spreading the risk of loss. The possibly greater ability of the manufacturing seller to prevent the loss is subordinated to the policy favoring freedom of contract fairly negotiated. If

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

389. *See* note 380 *supra* and accompany text.

390. 223 Or. 242, 541 P.2d 1378 (1975). *See also* Keystone Aeronautics Corp. v. R.J. Enstrom Corp., 499 F.2d 146 (3d Cir. 1974); note 379 *supra*.

391. 273 Or. at ___, 541 P.2d at 1384.

the considerations are not present, the agreement should be unenforceable regardless of the nature of the damage suffered or the type of agreement involved, whether it be an indemnity, hold harmless, limitation of remedy or disclaimer agreement.

3. *Warranty*

The Uniform Commerical Code contains detailed provisions with regard to disclaiming warranty liability. It distinguishes disclaimers from limitations of remedies. To "exclude or modify the implied warranty of merchantability or any part of it the language must mention merchantability and in the case of a writing must be conspicuous, and to exclude or modify any implied warranty of fitness the exclusion must be by a writing and conspicuous."[392] If a warranty is given, the remedy can be limited by fixing reasonable liquidated damages or by otherwise restricting the scope of recovery.[393] Where "circumstances cause an exclusive or limited remedy to fail of its essential purpose," the plaintiff is relegated to his remedies at law.[394] This may occur, for example, if the defendant fails to perform the limited remedy agreed on, or if the limited remedy deprives the plaintiff of his reasonable expectations.[395] "Limitation of consequential damages for injury to the person in the case of consumer goods is prima facie unconscionable but limitation of damages where the loss is commercial is not."[396] The cases so far give no indication as to what proof will be sufficient to overcome this prima facie unconscionability.

Disclaimers and limitations of remedies must be timely made in order to be effective.[397] A limitation on the length of warranty liability may be agreed on as long as it "is not manifestly unreasonable."[398]

The Code sections on disclaimer and limitation of remedies do not mesh well. On the one hand, the implication is that limitations need not be conspicuous while disclaimers must be.[399] On the other hand, it appears that all warranty liability can be conscionably disclaimed[400] but that if a warranty is

392. U.C.C. § 2-316(2) (1978 offic. text). There is a division of authority as to whether the conspicuousness requirement is absolute. Note, *Fairness, Flexibility, and the Waiver of Remedial Rights by Contract*, 87 YALE L.J. 1057, 1065 (1978) [hereinafter cited as YALE Note]. U.C.C. § 2-316(3) provides for "as is" disclaimers without requiring that they be conspicuous, but this requirement has nevertheless been imposed at least where the buyer is a lay person. Note, *Sales—Conspicuousness of Disclaimer of Implied Warranties*, 41 TENN. L. REV. 958 (1974).

393. U.C.C. §§ 2-718, 2-719 (1978 offic. text).

394. U.C.C. § 2-719(2) (1978 offic. text).

395. Wilson Trading Corp. v. David Ferguson, Ltd., 23 N.Y.2d 398, 244 N.E.2d 685, 297 N.Y.S.2d 108 (1968); Murray v. Holiday Rambler, 83 Wis. 2d 406, 265 N.W.2d 513 (1978); *see* Eddy, *On the "Essential" Purposes of Limited Remedies: The Metaphysics of UCC Section 2-719(2)*, 65 CALIF. L. REV. 28 (1977).

396. U.C.C. § 2-719(3) (1978 offic. text).

397. Stevens v. Daigle and Hinson Rambler, Inc., 153 So. 2d 511 (La. App. 1963).

398. U.C.C. § 1-204(1) (1978 offic. text).

399. Gramling v. Baltz, 485 S.W.2d 183 (Ark. 1972) (a limitation of remedies need not be conspicuous); *see* note 392 *supra*.

400. Some jurisidctions hold disclaimers of liability for personal injury unconscionable. *See*

given and liability for personal injury in the case of consumer goods is excluded the exclusion is prima facie unconscionable.

The issues of conspicuousness are affected in part by the Magnuson-Moss Warranty Act.[401] That Act distinguishes between full and limited warranties in the sale of consumer goods. Any warranty given for consumer goods must conspicuously state whether it is a full or a limited warranty. If it is full, repair must be made within a reasonale time without charge, no limit can be placed on the duration of implied warranties, the product must be replaced if not reasonably repairable and the warranter may not exclude or limit consequential damages "unless such exclusion conspicuously appears on the face of the warranty."[402] If the warranty is limited, any limitation of its duration is valid only "if such limitation is conscionable and is set forth in clear and unmistakable language and prominently displayed on the face of the warranty."[403]

The shortcomings of these two acts are evident. The Magnuson-Moss Act is primarily a notice statute and apparently is not intended to deal substantively with the conscionability of disclaimers. The Uniform Commercial Code looks to the nature of the damages[404] rather than to the status of the parties in determining whether a limitation of liability for personal injury is valid, and apparently allows exclusion of liability for all damages if the exclusion is conspicuous. On the other hand, if there is overreaching or unfair surprise, an exclusion or limitation may be unenforceable regardless of the type of damage involved. This is true whether plaintiff's claim is asserted in warranty or in tort.

G. *Personal Jurisdiction of Nonresidents*

One of the reasons for allowing a suit in strict liability against the local retailer or distributor is that the manufacturer may often be a nonresident corporation not subject to service of process. The problem of service of process on nonresidents has been significantly reduced, however, by the widespread enactment of "long-arm" statutes. These statutes typically provide that nonresidents are subject to the jurisdiction of the state enacting the statute for any claim arising from "[a]ny tortious act or omission within this state."[405]

Such statutes are generally construed to mean that the tort occurs where the injury is incurred, even though the manufacture or sale of the defective product occurs outside the state.[406] As long as the injury occurs in the forum

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WHITE & SUMMERS, *supra* note 369, at 395; YALE Note, *supra* note 392, at 1065.

401. 15 U.S.C. §§ 2301-12 (1976). *See* Comment, *The Federal Consumer Warranty Act and Its Effect on State Law*, 43 TENN. L. REV. 429 (1976).

402. 15 U.S.C. § 2304 (1976).

403. *Id.* § 2308. Conspicuousness for purposes of the Act is defined by the FTC in 16 CFR §§ 701-02 (1976).

404. Although UCC section 2-719 makes no cross-reference, the only section in the Code defining consumer goods is secured transactions section 9-109(1); goods are consumer goods "if they are used or bought for use primarily for personal, family or household purposes."

405. TENN. CODE ANN. § 20-235(b) (1978).

406. Gray v. Amer. Radiator and Standard Sanitary Corp., 22 Ill. 2d 432, 176 N.E.2d 761

state, the plaintiff can obtain service of process on the nonresident supplier. This is true whether the supplier resides in another state, or in a foreign country outside the United States.[407]

H. *Liability of Successor Corporations*

Not uncommonly one corporation will purchase the assets of another in exchange for stock of the purchaser or for cash, or both. The selling corporation then dissolves, either by agreement with the purchaser or of its own accord. If the dissolved corporation manufactured and sold a defective product which causes injury after the dissolution, the injured person may be left without remedy unless he can recover against the successor that bought the dissolving corporation's assets. The courts are increasingly allowing such recovery.[408]

There is no difficulty in holding the successor liable where there is a formal merger or consolidation between it and another corporation, or where the successor expressly or impliedly agrees to assume the predecessor's tort liability. Nor have courts had much difficulty in imposing successor liability based on "de facto" merger, where there is an exchange of assets for stock or cash with an agreement that the asset seller will dissolve as soon as practicable.[409]

Courts have gone further to impose liability even when the predecessor-successor exchange falls outside the accepted definition of "de facto" mergers. In such situations, they seek to determine whether the successor is essentially a continuation of the predecessor. If the successor retains the equipment, designs, personnel, trade and good will of the predecessor, courts are likely to find it liable for the predecessor's torts.[410] It is not clear what minimal combination of these continuation factors must be present to

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(1969). *See also* Braband v. Beech Aircraft Corp., 5 Ill. App. 3d 296, 367 N.E.2d 118 (1977), construing the commission of a tortious act within the state to mean the sale by defendant in Illinois of a defective airplane that later crashed in Canada injuring the plaintiff.

407. *See* Ross v. Spiegel, Inc., 53 Ohio App. 2d 297, 373 N.E.2d 1288 (1977)(long-arm service on foreign defendant corporation), *noted in* 5 OHIO N. U. L. REV. 557 (1978); Olmstead v. Braden Heaters, Inc., 5 Wash. App. 258, 487 P.2d 234 (1971)(same). For the problems that may be involved in enforcing against a foreign corporation a judgment obtained in this country, see Comment, *The Long-Arm Reaches The International Manufacturer—A Criticism*, 8 WILL. L.J. 54 (1972).

408. *See* Barringer, *Expanding the Products Liability of Successor Corporations*, 27 HAST. L.J. 1305 (1976); Note, *Products Liability For Successor Corporations: A Break from Tradition*, 49 COLO. L. REV. 357 (1978); Note, *Products Liability—Corporations—Asset Sales and Successor Liability*, 44 TENN. L. REV. 905 (1977); 19 FTD 95 (June 1978); Annot., 66 A.L.R.3d 824 (1975).

409. Knapp v. N. Amer. Rockwell Corp., 506 F.2d 361 (3d Cir. 1974), *cert. denied*, 421 U.S. 965 (1975) (exchange of assets for stock); Turner v. Bituminous Cas. Co., 397 Mich. 406, 244 N.W.2d 873 (1976) (exchange of assets for cash). Successor corporation liability has been imposed even though the predecessor was still in existence. Trimper v. Bruno-Sherman Corp., 436 F. Supp. 349 (E.D. Mich. 1977).

410. Cyr v. B. Offen & Co., 501 F.2d 1145 (1st Cir. 1974); Ray v. Alad Corp., 560 P.2d 3, 136 Cal. Rptr. 574 (1977).

impose liability. The important issue is whether the successor appears to be the same entity as the predecessor. Whenever this appearance is established, liability may be imposed.

It can be contended that court-imposed successor liability discourages the purchase of ailing corporations by aggressive, financially stable acquirers and thus is unproductive of sound economic growth. The validity of this criticism is not empirically established, however, and balanced against it is the need to compensate injured victims when there is a reasonable basis for doing so. Tort law is replete with situations where liability is imposed because the defendant has held himself out as something which he is not. The successor corporation can purchase products liability insurance covering his exposure on a "claims made" basis. This should be considered a normal cost of operation, whether the business is new or ongoing.

I. *Contribution and Indemnity*

Contribution and indemnity are means of reducing the defendant's liability by sharing the responsibility for an injury with co-tortfeasors. If the defendant is liable to the plaintiff only for that portion of damages which he caused, the assertion of co-tortfeasor liability constitutes a partial defense to the plaintiff's claim.[411] More commonly, the defendant is liable to the plaintiff for the entire damages suffered, but has a claim over against co-tortfeasors to share this liability.[412]

Both contribution and indemnity can be based on express agreement.[413] Such agreements are not common in the products field, perhaps because they are not practically negotiable. Rights of contribution and indemnity are usually implied by law. The term contribution is generally used to describe a co-tortfeasor sharing of liability, either on a per capita basis or on degree of responsibility.[414] The indemnity concept is used to describe full recovery over by one who is only vicariously or passively culpable against one who is actually or actively at fault.[415] The distinction is not always maintained, however, and New York has used indemnity as a means of enforcing co-tortfeasor sharing of liability on a degree-of-fault basis.[416]

Contribution and indemnity claims in products liability present a variety of patterns. Claims between suppliers, between a supplier and an individual, and between a supplier and the plaintiff's employer are the most com-

411. Miles v. West, 224 Kan. 284, 580 P.2d 876 (1978).

412. Amer. Motorcycle Ass'n v. Superior Court, 20 Cal. 3d 578, 578 P.2d 899, 146 Cal. Rptr. 182 (1978); Kampman v. Dunham, 560 P.2d 91 (Colo. 1977).

413. Phillips, *Contribution and Indemnity In Products Liability*, 42 TENN. L. REV. 85, 87-89 (1974) [hereinafter cited as Phillips—TENN.].

414. *Id.* at 90-91.

415. RESTATEMENT (SECOND) OF TORTS 886B (Tent. Draft No. 18, 1972).

416. Dole v. Dow Chem. Co., 30 N.Y.2d 143, 282 N.E.2d 288, 331 N.Y.S.2d 382 (1972); *accord*, Tolbert v. Gerber Industries, 255 N.W.2d 362 (Minn. 1977). The *Dole* principle has been extended to cases involving breach of warranty, Noble v. Desco Shoe Corp., 41 App. Div. 2d 908, 343 N.Y.S.2d 134 (1973). *See* note 424 *infra*.

mon.[417] Some courts have refused to permit recovery by a strictly liable manufacturer against a negligent individual, on the theory that contribution is unavailable where the grounds for liability differ.[418] This approach is too narrow. Anyone who contributes to a product-related injury shares in causing that injury. Not all such persons share in profits derived from the product, but responsibility for fault need not be based on unjust enrichment or on the profits of an enterprise.

One of the more controversial areas of products liability concerns supplier claims of implied contribution or indemnity against the plaintiff's employer for work-related product injuries, where the employer by his own misfeasance or nonfeasance has contributed to the plaintiff's injuries.[419] Recovery is usually denied, either on the ground that the employer and supplier are not joint tortfeasors or because the workers' compensation scheme is deemed to be the exclusive remedy.[420] Some courts permit contribution against the employer, but only in an amount equal to the employer's liability for workers' compensation benefits.[421] A few follow the New York rule of *Dole v. Dow Chemical Co.*[422] in permitting recovery by the supplier for a percentage equal to the full extent of the employer's fault.

The New York rule subverts the limited liabilty concept of workers' compensation. Perhaps this concept has outlived its usefulness in our advanced industrial society. The employer derives profit from the product just as the supplier does, and the idea that an enterprise should bear its cost applies to both. In any event, it seems inequitable to hold the supplier liable for a work-related injury in an amount greater than that for which he is responsible. Either the employer should carry his full responsibility, or the employee's claim against the supplier should be reduced by the percentage of the employer's responsibility.

As noted in the design crashworthiness section,[423] apportionment of liability may be made either on the basis of fault or of causation. Probably both factors are relevant, and causation may be a particularly useful basis for apportioning where one of the responsible parties is sued only in strict liability.[424]

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417. Phillips—TENN., *supra* note 413, at 103-12.

418. Rhoads v. Ford Motor Co., 374 F. Supp. 1317 (W.D. Pa. 1974); Fenton v. McCrory Corp., 47 F.R.D. 260 (W.D. Pa. 1969).

419. *See* Weisgall, *Workers' Compensation And Third Party Rights*, 1977 WIS. L. REV. 1035.

420. Annot., 28 A.L.R. 3d 943 (1969).

421. *E.g.*, Bjerk v. Universal Eng'r Corp., 552 F.2d 1314 (8th Cir. 1977).

422. 30 N.Y.2d 143, 282 N.E.2d 288, 331 N.Y.S.2d 382 (1972); *accord*, Skinner v. Reed-Prentice Div. Package Mach. Co., 374 N.E.2d 437 (Ill. 1977).

423. *See* § III.C.1. *supra*.

424. The trend seems to be to apportion liability between co-tortfeasors, one of whom is strictly liable, based on relative fault and on causation. *See* Stueve v. Amer. Honda Motors Co., 457 F. Supp. 740, 759-60 (D. Kan. 1978); Butaud v. Suburban Marine & Sporting Goods, Inc., 555 P.2d 42 (Alaska 1976); Safeway Stores v. Nest-Cart, 21 Cal. 3d 322, 579 P.2d 441, 146 Cal. Rptr. 550 (1978); Skinner v. Reed-Prentice Div. Package Mach. Co., 58 Ill. App. 3d 276, 374 N.E.2d 247 (1977); Comment, *Comparative Negligence and Strict Products Liability: Bu-*

VI. An Overview

It is possible that the future will see a consolidation or simplification of theories of recovery in products liability. Possibly there will be a return from strict liability to negligence standards as the general basis of recovery, either for all suppliers or for nonmanufacturing suppliers. Alternatively, if strict products liability maintains its vitality, its logical thrust to other areas of torts involving enterprise responsibility may prove irresistible.

Some of the proposals for modification of products law seem unwise. They are directed at such matters as the elimination of claims by an outer cutoff period for the statute of limitations; the elimination of foreseeability as a standard for determining liability for product modification and for plaintiff or third party misconduct; the exclusion of evidence of post-accident changes; proof of statutory compliance as conclusive evidence of nonliability; and the use of customary industry standards as a conclusive standard of liability.[425] These proposals reflect an attempt to fashion precise rules of liability for an area of the law that has traditionally been characterized by rule flexibility. They illustrate a distrust of jury decision-making, and an inclination either to place the decisions in the hands of the court or to remove the controversies from the courts entirely.

Many of these proposals will not withstand careful scrutiny. Moreover, even if they were adopted, they would not eliminate the basic flexibility in warnings and burden of proof rules, which are not susceptible of precise quantification. The cure to any perceived ills in the basic tort rules of products liability should rest in the judiciary's good sense exercised on a case by case basis.

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tand v. Suburban Marine & Sporting Goods, Inc., 38 Ohio St. L.J. 883 (1973). *See also* notes 178-80 *supra* and accompanying text.

425. *See Symposium On Products Liability Law: The Need For Statutory Reform*, 56 N.C.L. Rev. No. 4 (May 1978); Comment, *State Legislative Restrictions On Product Liability Actions*, 29 Mercer L. Rev. 619 (1978); 22 Pi Newsl. 85-87 (1978); Prod. Liab. Rep. (CCH), *Rep. Letters* nos. 386-88, 390, 392, 394-95, 404. According to Professor Victor Schwartz, as of mid-January 1979 eighteen states had enacted products liability laws most of which were "sponsored by product sellers" (letter to author dated January 16, 1979 from Victor E. Schwartz, Chairman Task Force on Product Liability and Accident Compensation, United States Department of Commerce). The Department of Commerce has proposed a draft of a model state products liability law, to promote uniformity in the area. 44 Fed. Reg. No. 9, at 2996-3019 (Jan. 13, 1979). This draft embodies many of the features contained in various state acts and proposals. For a discussion of the Draft Uniform Products Liability Law discussed above, see Twerski & Weinstein, *A Critique of the Uniform Product Liability Law—A Rush to Judgment*, 28 Drake L. Rev. 221 (1979).