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Richard C. Ausness

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RISKY BUSINESS: LIABILITY OF PRODUCT SELLERS WHO OFFER SAFETY DEVICES AS OPTIONAL EQUIPMENT

*Richard C. Ausness**

I. INTRODUCTION

Manufacturers often offer their products in different grades of quality or provide some features as optional equipment. Motor vehicles provide a good example of this marketing practice. Typically, a consumer can choose from a wide variety of optional equipment and the difference in price between the “stripped down” and the “fully loaded” version of a particular model may amount to thousands of dollars.¹ This practice does not cause much concern when optional equipment, such as satellite radio systems or heated seats, merely provides more comfort or convenience. But what about devices, such as antilock brakes or side airbags, that actually increase product safety? Should manufacturers be allowed to produce and sell “safer” and “more dangerous” versions of the same product?

This issue can be examined from a number of perspectives. The first is doctrinal. The Products Liability Restatement² and the courts of most states, require one who brings a design defect claim against a product seller to provide evidence of a reasonable alternative design (“RAD”) that would be feasible, cost-effective, and would have prevented his or her injuries.³ Can a plaintiff, who purchases a product that is not equipped with a particular safety device satisfy the RAD requirement by offering evidence that the product was available with the device as optional equipment? If so, can the plaintiff then argue that the

* Gallon & Baker Professor of Law, University of Kentucky; B.A. 1966, J.D. 1968, University of Florida; LL.M. 1973, Yale University.

1. J. Michael Wright, *Are You Ready to Buy a Car? New or Used—The Ten Thousand Dollar Question*, EZINE ARTICLES (Nov. 21, 2010), <http://ezinearticles.com/?Are-You-Ready-to-Buy-a-Car?-New-or-Used---The-Ten-Thousand-Dollar-Question&id=5421766>.

2. RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. (1998).

3. *See id.* § 2(b), § 2 cmts. b & d.

stripped down version of the product is defective or “not reasonably safe” because its design did not include the safety device as standard equipment?

The second issue raised by the sale of optional safety equipment is normative. Should consumers be free to accept increased risk in return for a lower price or greater convenience when they purchase a product or should the appropriate level of product safety be determined on a collective basis by juries in tort cases? In other words, should paternalism trump personal autonomy? The tension between these two values runs through products liability law, but it is especially strong in cases where consumers reject safer alternatives.

This Article examines the question of whether (or when) product sellers should be allowed to offer optional safety equipment without fear of being held strictly liable for selling a defectively designed product. Part II of this Article examines several approaches to risk-bearing. At one end of the spectrum, the principle of personal autonomy dictates that consumers should decide how much risk they wish to accept. On the other hand, products liability law assumes that if consumers are allowed to subject themselves to greater risk, producers will be quick to take advantage of their inability to make rational decisions about what risks to bear. Finally, economic analysis suggests that manufacturers should be responsible for reducing product-related risks when they are the “cheapest cost avoiders,” but should be allowed to shift risks when consumers have superior knowledge or ability to avoid or manage those risks.

Part III examines a number of cases where the manufacturer designs a product in accordance with plans and specifications provided by the purchaser. In such cases, the courts usually apply the contract specification doctrine, which protects manufacturers from liability to product users unless the design flaw is obvious. Part III also evaluates cases involving the sale of “naked” products, where the manufacturer of industrial machinery delivers the product without safety devices, leaving it up to the purchaser to decide what safety equipment to install. Although some courts hold the manufacturer liable if the product is defective as sold, the modern trend is to allow the manufacturer to delegate the responsibility for installing safety equipment to the purchaser, particularly if the product is a multi-purpose one.

Part IV looks at cases involving the provision of safety equipment on an optional basis by the manufacturer of products intended for industrial or commercial use. Many of these cases authorize manufacturers to shift the responsibility for product safety from themselves to purchasers by allowing the purchaser to choose what

safety equipment they wish to have installed. This is somewhat surprising because decisions about optional safety equipment, which are typically made by employers, may very well be suboptimal because the employers who make these decisions are not the ones who are exposed to the resulting product-related risks.

Part V examines decisions involving optional safety equipment on products manufactured for ordinary household use. It reveals that courts have employed four approaches in such cases. The first approach is to determine whether the product is defective in the condition in which it is actually sold, that is, without optional safety equipment. A second approach is to allow the manufacturer to offer optional safety equipment without liability as long as the consumer has superior knowledge about the risks associated with the intended use of the product. A third approach imposes liability on sellers of single-purpose products if they fail to offer cost-effective safety features as standard equipment, but allow sellers of multi-purpose products to offer safety equipment on an optional basis. Finally, an approach developed by the New York courts allows a seller to offer an optional safety feature without risking tort liability if: (1) the buyer is thoroughly knowledgeable regarding the product and its use and is actually aware that the safety feature is available; (2) there are some uses for which optional equipment is not necessary; and (3) the buyer is in a position to evaluate risks and benefits of not purchasing a particular safety device.⁴

Part VI evaluates some of the approaches that courts have used to determine whether a product seller can offer safety devices as optional equipment without incurring tort liability. This analysis considers these approaches in terms of personal autonomy, consumer protection, and economic efficiency. Finally, Part VII proposes a new approach to the issue of optional safety equipment in connection with both products designed for use in industrial or commercial settings and those that are intended to be sold to ordinary consumers.

II. PERSONAL AUTONOMY, PATERNALISM, AND ACCIDENT COST AVOIDANCE

From the beginning, two competing sets of values have competed for dominance in the law of products liability. The first of these is personal autonomy. Personal autonomy is strongly reflected in the law of sales and the Uniform Commercial Code.⁵ On the other hand,

4. See *Scarangella v. Thomas Built Buses, Inc.*, 717 N.E.2d 679, 683 (N.Y. 1999). See also *infra* Part V.D.

5. See David Frisch, *Rational Retroactivity in a Commercial Context*, 58 ALA. L. REV. 765,

products liability law, to the extent that it is based on tort law principles, is more paternalistic. For example, the liability standard, whether defined as “defective,” “unreasonably dangerous,” or “not reasonably safe,” subjects buyers and sellers alike to a socially determined minimum standard of safety. Furthermore, this minimum safety standard cannot be contracted away by disclaimers or waivers.⁶ Thus, products liability law requires consumers to accept a certain level of safety (and to pay for it) whenever they purchase new products. This portion of the Article will evaluate the argument for consumer choice, as well as the argument for paternalism as it relates to risk-bearing. It will also consider whether the economic concept of shifting responsibility for product safety to the “cheapest cost avoider” supports expanding consumer choice over product safety matters.

A. *The Argument for Allowing Consumers to Bear More Risk*

The argument in favor of allowing consumers to bear product-related risks is based principally on the concept of personal autonomy. The notion of personal autonomy assumes that individuals should have the power to make meaningful choices in their lives without having to justify them to others.⁷ This is based on the unique capacity of human beings to reason and to act according to normative principles.⁸ Personal autonomy has deep roots in philosophy, political theory, and popular culture.⁹ Respect for the principle of personal autonomy is also reflected in the American legal system.¹⁰ For example, a number of legal scholars have concluded that personal autonomy informs the First Amendment’s protection of free expression¹¹ as well as the due process and equal

776 (2007).

6. See RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 18 (1998).

7. See Stephen Gardbaum, *Liberalism, Autonomy, and Moral Conflict*, 48 STAN. L. REV. 385, 395 (1996).

8. See Scott A. Fisk, Comment, *The Last Best Place to Die: Physician-Assisted Suicide and Montana’s Constitutional Right to Personal Autonomy Privacy*, 59 MONT. L. REV. 301, 326 (1998) (quoting DAVID A. J. RICHARDS, *SEX, DRUGS, DEATH, AND THE LAW* 8 (1982)).

9. See Peter L. Berger, *Furtive Smokers—and What They Tell Us About America*, COMMENTARY, June 1994, at 21, 26 (remarking that “a strong tradition of individual autonomy has existed in America, expressed in folklore and literature, in everyday patterns of interaction . . . and of course in political institutions and law”).

10. *Union Pac. Ry. Co. v. Botsford*, 141 U.S. 250, 251 (1891) (“No right is held more sacred, or is more carefully guarded, by the common law, than the right of every individual to the possession and control of his own person, free from all restraint or interference of others, unless by clear and unquestionable authority of law.”); *Natanson v. Kline*, 350 P.2d 1093, 1104 (Kan. 1960) (observing that “Anglo-American law starts with the premise of thorough-going self-determination”).

11. See Richard H. Fallon, Jr., *Two Senses of Autonomy*, 46 STAN. L. REV. 875, 875, 902-03 (1994); Robert C. Post, *Racist Speech, Democracy, and the First Amendment*, 32 WM. & MARY L.

protection clauses of the Fourteenth Amendment and the constitutional right of privacy.¹² The Supreme Court has also accorded constitutional protection to a number of other autonomy interests, such as the right to travel,¹³ the right of free association,¹⁴ and such privacy interests as the right to procreate¹⁵ or not to procreate,¹⁶ and the right to marry.¹⁷ Finally, at the state level, courts have protected other aspects of personal autonomy, such as the right to refuse medical treatment.¹⁸ The principle of personal autonomy supports the notion that individuals should be allowed to take economic risks. Indeed, the courts have often recognized the benefits of allowing individuals to allocate economic risk among themselves by contract.¹⁹

Personal autonomy also supports the notion that individuals should be allowed to make choices that expose them to the risk of personal injury. The drafters of the Products Liability Restatement appear to agree with this position. For example, a comment to Section 2 of the Products Liability Restatement contains a hypothetical which states that the manufacturer of bullet-proof vests offers several models.²⁰ Some models provide front and back protection only, while others provide wrap-around protection. The plaintiff's employer has chosen to purchase a model that provides only front and back protection because it is cheaper, more comfortable, and allows greater flexibility of movement.

REV. 267, 279-85 (1991); see generally Martin H. Redish, *The Value of Free Speech*, 130 U. PA. L. REV. 591 (1982).

12. See Rogers M. Smith, *The Constitution and Autonomy*, 60 TEX. L. REV. 175, 189, 191-92 (1982).

13. See, e.g., *Shapiro v. Thompson*, 394 U.S. 618, 630-31 (1969) (citations omitted).

14. See, e.g., *Boy Scouts of Am. v. Dale*, 530 U.S. 640, 644, 647-48 (2000).

15. See, e.g., *Skinner v. Oklahoma*, 316 U.S. 535, 536, 541 (1942).

16. See, e.g., *Planned Parenthood v. Casey*, 505 U.S. 833, 851-52 (1992) (deciding on the right to an abortion); *Roe v. Wade*, 410 U.S. 113, 153 (1973) (deciding on the right to an abortion); *Eisenstadt v. Baird*, 405 U.S. 438, 443 (1972) (deciding on the right to use contraceptives); *Griswold v. Connecticut*, 381 U.S. 479, 485 (1965) (deciding on the right to use contraceptives).

17. See, e.g., *Zablocki v. Redhail*, 434 U.S. 374, 383, 387 (1978) (invalidating a state law restricting the right to marry); *Loving v. Virginia*, 388 U.S. 1, 12 (1967) (invalidating a state law prohibiting interracial marriages).

18. See, e.g., *Bartling v. Superior Court*, 209 Cal. Rptr. 220, 221, 224 (Ct. App. 1984) (allowing a non-terminally ill competent patient to refuse all life-sustaining procedures); *Satz v. Perlmutter*, 362 So. 2d 160, 161-62 (Fla. Dist. Ct. App. 1978), *aff'd*, 379 So. 2d 359, 360 (Fla. 1980) (allowing a terminally ill competent patient to order withdrawal of a respirator); *Brophy v. New England Sinai Hosp., Inc.*, 497 N.E.2d 626, 628, 638-40 (Mass. 1986) (allowing discontinuation of the nutrition and hydration of a non-terminally ill incompetent patient); *In re Farrell*, 529 A.2d 404, 416 (N.J. 1987) (allowing a terminally ill competent person to compel discontinuation of life-sustaining care).

19. See *E. River Steamship Corp. v. Transamerica Delaval, Inc.*, 476 U.S. 858, 871-73 (1986); *Seely v. White Motor Co.*, 403 P.2d 145, 151 (Cal. 1965).

20. RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 2 cmt. f, illus. 10 (1998).

When the plaintiff, a highway patrol officer, is shot and killed during a routine traffic stop, his personal representative sues the manufacturer, alleging that the vest was defective because it did not incorporate a safer alternative design. The drafters of the Products Liability Restatement conclude that the vest's design is not defective just because it has disadvantages as well as advantages.²¹ While this could merely be an illustration of the risk-utility test for design defects,²² the more likely interpretation is that consumers ought to be able to purchase a riskier product even though a safer model might be available. In other words, personal autonomy vindicates the right of consumers, at least in some cases, to make decisions about product-related risks that might not necessarily optimize accident costs. This conclusion is reinforced by the drafters comment that "[t]o subject sellers to liability based on that design would unduly restrict the range of consumer choice among products."²³

B. The Case Against Allowing Consumers to Choose Riskier Alternatives

Products liability law generally prohibits sellers from shifting preventable risks to consumers. For example, both the Restatement (Second) of Torts and the Products Liability Restatement refuse to give effect to contractual disclaimers or waivers of liability.²⁴ In addition, the Products Liability Restatement, following the overwhelming weight of authority,²⁵ has rejected the patent danger rule in design defect cases and made it clear that manufacturers have a duty to eliminate obvious risks when they could do so by cost-effective design changes.²⁶ This suggests that manufacturers generally must reduce or eliminate risks whenever it is cost-effective to do so, even though consumers are willing to accept additional risk in exchange for a lower product price.

The traditional rationale for protecting consumers is that they are at such a disadvantage when it comes to making decisions about risk-

21. *Id.*

22. See discussion *infra* Part VI.A.

23. RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 2 cmt. f, illus. 10.

24. See *id.* § 18 (stating that disclaimers and other contractual limitations on liability "do not bar or reduce otherwise valid products liability claims against sellers or other distributors of new products for harm to persons"); RESTATEMENT (SECOND) OF TORTS § 402A cmt. m (1965) (declaring that a personal injury claim by a consumer against a product seller "is not affected by any disclaimer or other agreement").

25. See, e.g., *Calles v. Scripto-Tokai Corp.*, 864 N.E.2d 249, 260 (Ill. 2007); *Micallef v. Miehle Co.*, 348 N.E.2d 571, 577 (N.Y. 1976); see also DAVID G. OWEN, PRODUCTS LIABILITY LAW 647-48, 651-52 (2d ed. 2008).

26. See RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 2 cmt. d.

bearing that it is unconscionable to let them do so.²⁷ In particular, information asymmetry, inequality of bargaining power, and cognitive limitations are said to make it virtually impossible for consumers and product sellers to allocate the risk of personal injury by private agreement.

1. Information Asymmetry

One reason for protecting consumers is that they do not have adequate information about product-related risks and, therefore, systematically underestimate them.²⁸ According to this narrative, consumers often lack accurate information because it is costly in terms of money and effort to acquire.²⁹ Manufacturers, in contrast, usually know a great deal about the quality and safety of their products.³⁰ Consequently, consumers typically must rely on manufacturers and others in the distributive chain to provide reliable information about the products they sell.³¹ However, manufacturers are not always willing to share this sort of information with consumers and in some cases may have actually concealed information about the risks associated with the use or consumption of their products.³² Writing in 1965, Professor Thomas Cowan used the following colorful language to describe the unequal relationship between product sellers and consumers:

To put the matter bluntly, a large proportion of mass products are consciously made as inferior as the traffic will bear and are advertised by conscious misrepresentation as far superior to their known quality. The combination of low quality production and high quality lying makes it impossible for those using the products of mass manufacture to distinguish good merchandise from bad without the services of a general testing laboratory.³³

Unfortunately, nothing much seems to have changed as more recent scholarship suggests that some manufacturers continue to conceal or

27. See *Greenman v. Yuba Power Prods., Inc.*, 377 P.2d 897, 901 (Cal. 1963); *Henningsen v. Bloomfield Motors, Inc.*, 161 A.2d 69, 78 (N.J. 1960).

28. Steven P. Croley & Jon D. Hanson, *Rescuing the Revolution: The Revived Case for Enterprise Liability*, 91 MICH. L. REV. 683, 707 (1993).

29. See *id.* at 770.

30. See David G. Owen, *Rethinking the Policies of Strict Products Liability*, 33 VAND. L. REV. 681, 711 (1980) [hereinafter *Rethinking the Policies of Strict Products Liability*].

31. See *Escola v. Coca Cola Bottling Co.*, 150 P.2d 436, 443 (Cal. 1944) (Traynor, J., concurring); *Henningsen*, 161 A.2d at 83.

32. See Lindley J. Brenza, Comment, *Asbestos in Schools and the Economic Loss Doctrine*, 54 U. CHI. L. REV. 277, 291 (1987).

33. See Thomas A. Cowan, *Some Policy Bases of Products Liability*, 17 STAN. L. REV. 1077, 1087 (1965).

misrepresent product risks.³⁴ At the same time, information is now available from government agencies like the Consumer Product Safety Commission, the Federal Trade Commission, the Environmental Protection Agency, and the Food and Drug Administration, as well as publications like Consumer Reports.³⁵ In addition, blogs and other Internet sources also provide information about the quality and safety of many products.³⁶ Thus, the increased availability of product information undermines the information asymmetry rationale somewhat.

2. Inequality of Bargaining Power

Even when consumers obtain reliable information about product safety, they may not have sufficient bargaining power to secure contractual protection against such risks.³⁷ In today's mass marketing environment, it is not practical for consumers and product sellers to engage in face-to-face bargaining; instead, non-negotiable standard form contracts are the norm.³⁸ Enterprises with strong bargaining power are particularly likely to utilize adhesion contracts to limit their exposure to liability.³⁹ The classic example of this practice can be found in *Henningsen v. Bloomfield Motors, Inc.*,⁴⁰ where an adhesion contract drafted by an automobile manufacturer's trade association expressly disclaimed liability for personal injuries.⁴¹ Anyone who wished to purchase a motor vehicle from an American car manufacturer had to forego the protection normally accorded by the implied warranty of merchantability.⁴²

34. See Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 HARV. L. REV. 1420, 1496-1502 (1999) (discussing the intentional misrepresentation of the tobacco industry).

35. See CONSUMER REPS., <http://www.consumerreports.org/cro/index.htm> (last visited Nov. 11, 2011); *For Consumers*, U.S. FOOD AND DRUG ADMIN., <http://www.fda.gov/ForConsumers/default.htm> (last updated Sept. 26, 2011); U.S. CONSUMER PRODUCT SAFETY COMMISSION, <http://www.cpsc.gov> (last updated Sept. 27, 2011); U.S. ENVTL. PROTECTION AGENCY, <http://www.epa.gov> (last visited Nov. 11, 2011); *Welcome to the Bureau of Consumer Protection*, FED. TRADE COMM'N, <http://www.ftc.gov/bcp/index.shtml> (last modified Feb. 1, 2011).

36. E.g., *About the Child Safety Blog (CSB)*, CHILDSAFETYBLOG, <http://www.childsafetyblog.org/about.html> (last visited Nov. 11, 2011).

37. See Michael B. Metzger, *Disclaimers, Limitations of Remedy, and Third Parties*, 48 U. CIN. L. REV. 663, 687 (1979).

38. See Anthony T. Kronman, *Paternalism and the Law of Contracts*, 92 YALE L.J. 763, 770-71 (1983) (discussing how consumer contracts are often considered contracts of adhesion because there is an imbalance in the bargaining power of the parties).

39. See *Henningsen v. Bloomfield Motors, Inc.*, 161 A.2d 69, 78 (N.J. 1960); W. David Slawson, *Mass Contracts: Lawful Fraud in California*, 48 S. CAL. L. REV. 1, 47-48 (1974).

40. 161 A.2d 69 (N.J. 1960).

41. *Id.* at 78-80.

42. *Id.*

Nowadays, product sellers, especially those with a large market share, still have considerable economic power and continue to limit face-to-face bargaining by relying on non-negotiable standard form sales contracts.⁴³ Nevertheless, foreign and domestic competition has eroded the monopoly power that many manufacturers took advantage of during the first half of the last century.⁴⁴ Consequently, consumers who do not like the quality, price, or warranty terms that a particular seller offers are free to look for a better deal elsewhere.⁴⁵ This suggests that inequality of bargaining power may be less of a problem today than it was forty or fifty years ago.

3. Cognitive Limitations

Classical economic theory assumes that individuals act in a rational manner to maximize their utility.⁴⁶ This is known as the “rational choice” or “expected utility theory” model of decision making.⁴⁷ Furthermore, when a decision involves risk or uncertainty, rational actors take into account the probability of various alternatives occurring.⁴⁸ However, social science research suggests that such rational decision making is often limited by the inability of people to process information effectively.⁴⁹ This condition is sometimes referred to as “bounded rationality.”⁵⁰ These cognitive limitations may produce risk-allocation decisions that are not consistent with the laws of probability or expected utility.⁵¹

43. See Slawson, *supra* note 39, at 2, 47-48.

44. See generally CHARLES R. GEISST, *MONOPOLIES IN AMERICA: EMPIRE BUILDERS AND THEIR ENEMIES FROM JAY GOULD TO BILL GATES* (2000).

45. Recent social science research suggests that consumers as a group can exert considerable influence over sellers in a competitive environment, particularly if a significant number of them are willing to “shop around” for the best deal. See Alan Schwartz & Louis L. Wilde, *Imperfect Information in Markets for Contract Terms: The Examples of Warranties and Security Interests*, 69 VA. L. REV. 1387, 1450-51 (1983). Since most sellers rely on standard form contracts, those who compete for the business of shoppers will have to offer the same terms to nonshoppers as well. See *id.* This process puts pressure on sellers to improve product quality and warranty protection for everyone. See *id.*

46. See Richard L. Hasen, Comment, *Efficiency Under Informational Asymmetry: The Effect of Framing on Legal Rules*, 38 UCLA L. REV. 391, 394 (1990).

47. *Id.* at 394 n.10; Amos Tversky & Daniel Kahneman, *Rational Choice and the Framing of Decisions*, 59 J. BUS. S251, S252 (Supp. 1986).

48. See Roger G. Noll & James E. Krier, *Some Implications of Cognitive Psychology for Risk Regulation*, 19 J. LEGAL STUD. 747, 750 (1990).

49. See Hanson & Kysar, *supra* note 34, at 1425.

50. See Howard Latin, “Good” Warnings, Bad Products, and Cognitive Limitations, 41 UCLA L. REV. 1193, 1199 (1994).

51. See Melvin Aron Eisenberg, *The Limits of Cognition and the Limits of Contract*, 47 STAN. L. REV. 211, 213 (1995).

One type of bounded rationality involves people who overestimate their ability to cope with risk or underestimate the fact that their knowledge or judgment may be deficient.⁵² For example, a number of people have been injured while trying to make shallow dives into above ground swimming pools,⁵³ other people have overestimated their capacity to tolerate alcohol,⁵⁴ and numerous workers unsuccessfully matched wits with heavy machinery.⁵⁵ In some cases, individuals may even suffer from a “third-person effect” in which they assume that the inherent risks associated with a particular activity will somehow not apply to them.⁵⁶ The belief of many cigarette smokers that they will not suffer any adverse health effects from smoking is an example of this phenomenon.⁵⁷

People also tend to reject or discount information about risk that contradicts their preexisting beliefs or biases.⁵⁸ This is known as “cognitive dissonance.”⁵⁹ For example, people who are attracted to styling or power in an automobile may disregard information about the automobile’s risks or quality problems.⁶⁰ Another cognitive problem involves “faulty telescopic faculties,” where people give less weight than they should to future costs and benefits, while overestimating present costs and benefits.⁶¹

Finally, reliance on certain decision making rules, known as “cognitive heuristics,” may lead people to miscalculate risks.⁶² Heuristics enable people to simplify the decision making process by relying on cognitive short-cuts and rules of thumb.⁶³ For example, when making a judgment about the probability of an event occurring, people will often employ an availability heuristic by comparing it with

52. See Noll & Krier, *supra* note 48, at 754-55.

53. See, e.g., *Corbin v. Coleco Indus., Inc.*, 748 F.2d 411, 412-13 (7th Cir. 1984); *Glittenberg v. Doughboy Recreational Indus.*, 491 N.W.2d 208, 210 (Mich. 1992); *Belling v. Haugh’s Pools, Ltd.*, 511 N.Y.S.2d 732, 733 (App. Div. 1987).

54. See, e.g., *LeBouef v. Goodyear Tire & Rubber Co.*, 623 F.2d 985, 988 (5th Cir. 1980); *Pemberton v. Am. Distilled Spirits Co.*, 664 S.W.2d 690, 691 (Tenn. 1984); *Brune v. Brown Forman Corp.*, 758 S.W.2d 827, 827-28 (Tex. Ct. App. 1988).

55. See, e.g., *Bates v. John Deere Co.*, 195 Cal. Rptr. 637, 639 (Ct. App. 1983); *Micallef v. Miehle Co.*, 348 N.E.2d 571, 573 (N.Y. 1976).

56. See Jon D. Hanson & Kyle D. Logue, *The Costs of Cigarettes: The Economic Case for Ex Post Incentive-Based Regulation*, 107 YALE L.J. 1163, 1186 (1998).

57. *Id.* at 1186-87.

58. See Robert C. Ellickson, *Bringing Culture and Human Frailty to Rational Actors: A Critique of Classical Law and Economics*, 65 CHI.-KENT L. REV. 23, 42 (1989).

59. Latin, *supra* note 50, at 1234.

60. *Id.*

61. Eisenberg, *supra* note 51, at 222.

62. Hanson & Kysar, *supra* note 34, at 1433; see also Eisenberg, *supra* note 51, at 218.

63. Hanson & Kysar, *supra* note 34, at 1433.

something that they regard as analogous or comparable instead of evaluating objective data.⁶⁴ While this may cause people to overestimate the risks of rare but vivid events, such as airplane crashes or toxic waste spills, it may also lead them to underestimate the risks of more commonplace events, like injuries from ladders or power tools.⁶⁵

People who utilize a representativeness heuristic, sometimes referred to as the “law of small numbers,” focus on a small portion of data, which they believe is representative of the whole, instead of basing their decision on all of the available data.⁶⁶ Supermarkets often take advantage of the representative heuristic by pricing staples, such as milk or eggs, at low levels.⁶⁷ Experience shows that consumers will falsely assume that because these products are bargains, other products in the store will also be competitively priced.⁶⁸

The way a choice is framed also affects the decision.⁶⁹ For example, test subjects preferred the certain loss of \$50 over a 25% chance of a \$200 loss when it was described as insurance, but favored the probabilistic loss when it was characterized as a game of chance even though the two risks were mathematically the same.⁷⁰ Food manufacturers take advantage of the framing heuristic when they label products 75% “fat free” instead of describing them as containing 25% fat.⁷¹

Finally, when individuals form an initial impression or “anchor,” they tend to adjust it in response to new information instead of re-examining their decision from scratch.⁷² Product sellers, such as automobile dealers, take advantage of this anchoring heuristic by displaying a sticker price prominently on each of their vehicles.⁷³ Even though dealers know that they will not receive the full sticker price when they sell their cars, they still gain an advantage because the actual selling price will be biased toward the initial or “anchor” price set by the dealer.⁷⁴ When consumers employ the anchoring heuristic in evaluating product-related risks in the face of changing information, the ultimate

64. See Latin, *supra* note 50, at 1233.

65. *Id.* at 1233-34.

66. Eisenberg, *supra* note 51, at 222; Hanson & Kysar, *supra* note 34, at 1449.

67. Hanson & Kysar, *supra* note 34, at 1449.

68. *Id.*

69. Noll & Krier, *supra* note 48, at 753-54.

70. Baruch Fischhoff, *Cognitive Liabilities and Product Liability*, 1 J. PRODUCTS LIAB. 207, 213 (1977).

71. Hanson & Kysar, *supra* note 34, at 1451-52.

72. See Thomas S. Ulen, *Cognitive Imperfections and the Economic Analysis of Law*, 12 HAMLINE L. REV. 385, 400 (1989).

73. See Hanson & Kysar, *supra* note 34, at 1440.

74. *Id.*

risk estimate will tend to be biased toward the original risk estimate even when new information indicates that the original estimate underestimated the risk.⁷⁵

These cognitive limitations are not necessarily mutually exclusive. Rather, they “are interrelated and often cumulative.”⁷⁶ Furthermore, manufacturers have every incentive to exploit these cognitive limitations in order to minimize consumers’ awareness of the risks associated with their products.⁷⁷ All of this undermines the autonomy rationale and suggests that consumers should not be allowed to allocate risks by private agreements with sellers.⁷⁸

C. *The Accident Cost Avoidance Perspective*

Another view of this issue is provided by law and economics scholarship which contends that tort law can reduce accident costs to an optimal level if it ensures that accident costs are borne by the “cheapest cost avoider,” that is, the party who is in the best position to discover accident risks and employ cost-effective measures to reduce or eliminate them.⁷⁹ Most commentators assume that the “cheapest cost avoider” is the producer rather than the consumer.⁸⁰ Their control over the design and production process enables producers to prevent or reduce many product-related risks.⁸¹ However, producers have little incentive to improve product safety as long as the costs of product-related injuries are largely borne by consumers. Shifting these accident costs to producers by means of strict liability internalizes these costs and thereby forces producers to choose between paying damages for the injuries that their products cause, or spending money to reduce or prevent the injuries from occurring in the first place.⁸²

75. Latin, *supra* note 50, at 1237-38.

76. *Id.* at 1240.

77. Hanson & Kysar, *supra* note 34, at 1427.

78. See Schwartz & Wilde, *supra* note 45, at 1450 (discussing how consumers as a group often have considerable power to affect the behavior of product sellers).

79. See GUIDO CALABRESI, *THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* 135 (5th prtg. 1977); Guido Calabresi, *Does the Fault System Optimally Control Primary Accident Costs?*, 33 L. & CONTEMP. PROBS. 429, 436, 438 n.14 (1968); Guido Calabresi, *Some Thoughts on Risk Distribution and the Law of Torts*, 70 YALE L.J. 499, 505 (1961); Guido Calabresi, *The Decision for Accidents: An Approach to Nonfault Allocation of Costs*, 78 HARV. L. REV. 713, 726-29 (1965) [hereinafter *The Decision for Accidents*].

80. See, e.g., *The Decision for Accidents*, *supra* note 79, at 727-29; *Rethinking the Policies of Strict Products Liability*, *supra* note 30, at 712.

81. See Mary J. Davis, *Individual and Institutional Responsibility: A Vision for Comparative Fault in Products Liability*, 39 VILL. L. REV. 281, 347 (1994); *Rethinking the Policies of Strict Products Liability*, *supra* note 30, at 711.

82. See Craig Brown, *Deterrence and Accident Compensation Schemes*, 17 U.W. ONTARIO L.

This does not mean that imposing strict liability compels producers to make their products as safe as current technology permits; rather, it creates an economic incentive to achieve an optimal level of expenditures on product safety.⁸³ In other words, producers are encouraged to spend money on product safety as long as the marginal cost of additional product-related injuries is less than the marginal reduction of expected tort liability.⁸⁴ Conversely, a producer will choose to pay damage claims when the marginal cost of further product safety expenditures equals or exceeds the marginal benefits of additional accident cost reduction.⁸⁵ However, by forcing producers to internalize the costs of injuries from defective products, the imposition of strict liability encourages producers to devote an optimal, but not excessive, amount of resources to product safety.

The accident cost optimization analysis, with its emphasis on encouraging manufacturers to implement accident cost avoidance measures, would seem to support a rule which imposes liability on manufacturers when they attempt to shift product-related risks to consumers by offering safety features as optional, instead of standard, equipment. If a manufacturer is the “cheapest cost avoider,” arguably it is in the best position to decide how much product safety is optimal. Thus, shifting this decision to consumers is likely to produce a suboptimal level of accident costs because consumers would be more likely to make poor choices.

However, sometimes consumers are better able than producers to manage or avoid certain types of product-related risks. In fact, some consumers may not be exposed to a particular risk at all. For example, consumers who do not have small children would have little use for products with child-proof caps. Other consumers may be better able to deal with product-related risks because they are more careful, more experienced, or more intelligent than the average consumer. Thus, a professional carpenter may not need some of the safety equipment associated with electric saws or other woodworking equipment that novices would require. Not only would such consumers not need these safety features, they might not want them because they are expensive or because they impair efficient operation of the product.

REV. 111, 128 (1979).

83. See W. Kip Viscusi et al., *Deterring Inefficient Pharmaceutical Litigation: An Economic Rationale for the FDA Regulatory Compliance Defense*, 24 SETON HALL L. REV. 1437, 1448-49 (1994).

84. See James A. Henderson, Jr., *Product Liability and the Passage of Time: The Imprisonment of Corporate Rationality*, 58 N.Y.U. L. REV. 765, 768 (1983).

85. See David Rosenberg, *The Causal Connection in Mass Exposure Cases: A “Public Law” Vision of the Tort System*, 97 HARV. L. REV. 849, 865 (1984).

This suggests that the law and economics perspective does not necessarily support any particular across-the-board rule on whether consumers should be able to accept or reject optional safety equipment. Instead, an accident cost optimization analysis would seem to favor a rule that would allow consumers to decline safety equipment in some circumstances, but not in others. A review of the case law indicates that courts seem to favor rules that promote allocative efficiency by striking a balance between consumer sovereignty and consumer protection.⁸⁶

III. THE CONTRACT SPECIFICATION DOCTRINE AND “NAKED” PRODUCT SALES

There are numerous cases that deal with the issue of liability when purchasers make decisions about whether to install safety equipment. However, many of them are not concerned with a consumer’s right to choose whether to purchase optional safety equipment provided by the manufacturer. It is helpful to examine these cases briefly because they involve many of the same issues that dominate the optional safety equipment cases. The cases below fall into two categories: (1) those where the seller designs the product according to the buyer’s specifications;⁸⁷ and (2) those where the seller relies on the buyer to install safety equipment after the product leaves the seller’s possession.⁸⁸

A. *The Contract Specification Doctrine*

The contract specification doctrine provides that a manufacturer will not be held liable for a design defect when it manufactures a product according to the purchaser’s plans and specifications unless the design is clearly defective.⁸⁹ Courts first began to recognize this rule in negligence actions against building contractors who constructed roads or structures in accordance with specifications provided by their employers.⁹⁰ Many courts also extended the contract specification defense to manufactured

86. See *infra* Parts IV, V (discussing cases that set forth rules regarding optional safety equipment).

87. See *infra* Part III.A.

88. See *infra* Part III.B.

89. See David G. Owen, *Special Defenses in Modern Products Liability Law*, 70 MO. L. REV. 1, 3 (2005).

90. See, e.g., *Person v. Cauldwell-Wingate Co.*, 187 F.2d 832, 834, 836 (2d Cir. 1951); *Littlehale v. E.I. du Pont de Nemours & Co.*, 268 F. Supp. 791, 793, 795, 797-98 (S.D.N.Y. 1966), *aff’d*, 380 F.2d 274 (2d Cir. 1967); *Davis v. Caterpillar Tractor Co.*, 719 P.2d 324, 325-27 (Colo. App. 1985); *Ryan v. Feeney & Sheehan Bldg. Co.*, 145 N.E. 321, 321-22 (N.Y. 1924); *Hardie v. Charles P. Boland Co.*, 98 N.E. 661, 662-63 (N.Y. 1912); *Curtain v. Somerset*, 21 A. 244, 244-45 (Pa. 1891), *abrogated by* *Woodward v. Dietrich*, 548 A.2d 301 (Pa. 1988).

products at a time when liability to injured consumers was determined by negligence principles rather than strict liability.⁹¹ This version of the contract specification doctrine was endorsed by the drafters of the Restatement (Second) of Torts.⁹²

Eventually, a number of courts also allowed product manufacturers to assert a contract specification defense in strict liability cases.⁹³ For example, in *Moon v. Winger Boss Co.*,⁹⁴ the plaintiff suffered severe injuries when his arm became entangled in a sprocket and chain located at the takeup end of a moving conveyor-type breaking table mechanism.⁹⁵ The specifications for the breaking tables, provided by the plaintiff's employer, did not require the defendant manufacturer to install chain guards on the conveyor takeups, leaving this part of the machine unprotected.⁹⁶ The plaintiff relied on both negligence and strict liability theories to argue that the machine was defectively designed.⁹⁷ However, relying on the Restatement (Second) of Torts,⁹⁸ the appeals court concluded that the manufacturer would not be liable for injuries to the user of a product when it manufactured the product in accordance with plans and specifications provided by the buyer, unless the plans were "obviously, patently, or glaringly dangerous."⁹⁹

More recently, a Missouri appellate court strongly endorsed the contract specification doctrine in *Bloemer v. Art Welding Co.*¹⁰⁰ In that case, two employees were injured while cleaning a large machine known as a "cyclone."¹⁰¹ The cyclone was a three-story tall cylindrical tank

91. See *Spangler v. Kranco, Inc.*, 481 F.2d 373, 374-75 (4th Cir. 1973); *Moran v. Pittsburgh-Des Moines Steel Co.*, 166 F.2d 908, 914-17 (3d Cir. 1948); *Md. Cas. Co. v. Indep. Metal Prods. Co.*, 99 F. Supp. 862, 867-68 (D. Neb. 1951), *aff'd*, 203 F.2d 838 (8th Cir. 1953); *Wright v. Holland Furnace Co.*, 243 N.W. 387, 387-88 (Minn. 1932); *Szatkowski v. Turner & Harrison, Inc.*, 584 N.Y.S.2d 170, 171 (App. Div. 1992).

92. See RESTATEMENT (SECOND) OF TORTS § 404 cmt. a (1965).

93. See, e.g., *Garrison v. Rohm & Haas Co.*, 492 F.2d 346, 347, 353 (6th Cir. 1974); *Housand v. Bra-Con Indus., Inc.*, 751 F. Supp. 541, 543 (D. Md. 1990); *Lesnefsky v. Fischer & Porter Co.*, 527 F. Supp. 951, 953, 955 (E.D. Pa. 1981); *Orion Ins. Co. v. United Tech. Corp.*, 502 F. Supp. 173, 174, 178 (E.D. Pa. 1980); *McCabe Powers Body Co. v. Sharp*, 594 S.W.2d 592, 593, 595 (Ky. 1980); *Bloemer v. Art Welding Co.*, 884 S.W.2d 55, 56 (Mo. Ct. App. 1994); *Moon v. Winger Boss Co.*, 287 N.W.2d 430, 432-33 (Neb. 1980); *but see Hendricks v. Comerio Ercole*, 763 F. Supp. 505, 512-13 (D. Kan. 1991); *Collins v. Newman Mach. Co.*, 380 S.E.2d 314, 316-17 (Ga. Ct. App. 1989).

94. 287 N.W.2d 430 (Neb. 1980).

95. *Id.* at 431.

96. *Id.* at 431-32.

97. *Id.* at 432.

98. RESTATEMENT (SECOND) OF TORTS § 404 cmt. a (1965).

99. *Moon*, 287 N.W.2d at 434.

100. 884 S.W.2d 55, 56 (Mo. Ct. App. 1994).

101. *Id.* at 57.

which was used to remove detergent particles from the air.¹⁰² The machine was designed by the plaintiffs' employer, Lever Brothers, and fabricated by the defendants in accordance with Lever Brothers' specifications.¹⁰³ The plaintiffs were burned by hot water trapped inside the cyclone as they attempted to open the machine's access door.¹⁰⁴ The plaintiffs brought suit against the defendants, alleging various design defects.¹⁰⁵ On appeal from a lower court ruling in favor of the defendants, the Missouri intermediate appellate court acknowledged that the Missouri Supreme Court had recognized the contract specification doctrine in *Gast v. Shell Oil Co.*,¹⁰⁶ a case where a building contractor performed work in accordance with the landowner's specifications.¹⁰⁷ The *Bloemer* court concluded that the analysis in *Gast* was essentially the same as that of the Restatement (Second) of Torts Section 404 which extended the contract specification doctrine to product manufacturers.¹⁰⁸ Therefore, the court held that the contract specification doctrine should protect the manufacturers of the cyclone from liability.¹⁰⁹

To summarize, the contract specification doctrine protects manufacturers who allow purchasers to decide how safe they want their products to be. As a defense to a negligence claim, compliance with contract specifications can be justified on two grounds. First, if the manufacturer is not an expert and it is reasonable for it to rely on the purchaser's superior knowledge, then a manufacturer who fabricates a product in accordance with the purchaser's specification has exercised due care and, therefore, is not negligent.¹¹⁰ Second, if the manufacturer has not participated in the design of the product, but merely played a passive role, then it is not the negligent party if the plaintiff's claim is negligent design.¹¹¹

B. Sales of "Naked" Products

Another group of cases is concerned with manufacturers who sell dangerous machinery in a "naked" condition, that is, without any safety equipment at all, and leave it to the purchasers to decide which devices

102. *Id.*

103. *Id.* at 56-57.

104. *Id.* at 57.

105. *Id.*

106. 819 S.W.2d 367 (Mo. 1991).

107. *Id.* at 369, 371; *Bloemer*, 884 S.W.2d at 58-59.

108. *Bloemer*, 884 S.W.2d at 58-59.

109. *Id.* at 59.

110. *See, e.g., id.*; *Moon v. Winger Boss Co.*, 287 N.W.2d 430, 431, 434 (Neb. 1980).

111. *See, e.g., Bloemer*, 884 S.W.2d at 57.

to install on the products after they leave the manufacturers' control.¹¹² Many of these cases involve punch presses and other types of industrial machinery.¹¹³ Some courts have concluded that a product is defective if it is unreasonably dangerous when sold without safety devices and the manufacturer cannot shift its responsibility to produce a reasonably safe product to the purchaser.¹¹⁴ However, a large number of courts have taken the opposite view, particularly for multifunctional machinery, and allowed the manufacturer to delegate the responsibility for installing safety devices to the purchaser.¹¹⁵

*Bexiga v. Havir Manufacturing Corp.*¹¹⁶ is illustrative of the "no delegation" approach.¹¹⁷ In that case, the plaintiff, an eighteen-year-old punch press operator, was injured when his right hand was crushed by the ram of the machine.¹¹⁸ The machine, a ten-ton punch press, consisted of a hydraulic ram which would descend about five inches, a die area and, stamp or punch metal discs that were placed in the die.¹¹⁹ The manufacturer shipped the punch press to the plaintiff's employer without installing any safety devices on the machine except for a guard over the flywheel.¹²⁰ The plaintiff was injured when he activated the ram by stepping on the machine's foot pedal before making sure that his hands were clear of the die area.¹²¹ The plaintiff brought suit against the manufacturer, alleging that it had a duty to equip the press with some form of safety device that would protect the operator from this type of injury.¹²²

The trial court dismissed the case at the close of the plaintiff's evidence and the intermediate court affirmed.¹²³ On appeal, the New Jersey Supreme Court saw the issue as one of duty and concluded that product safety was principally the manufacturer's concern and that it should not be allowed to shift this responsibility to someone further

112. See, e.g., *Gordon v. Niagara Mach. & Tool Works*, 574 F.2d 1182, 1184-85 (5th Cir. 1978); *Verge v. Ford Motor Co.*, 581 F.2d 384, 386 (3rd Cir. 1978); *Dorsey v. Yoder Co.*, 331 F. Supp. 753, 755 (E.D. Pa. 1971); *Bexiga v. Havir Mfg. Corp.*, 290 A.2d 281, 282 (N.J. 1972); *Bautista v. Verson Allsteel Press Co.*, 504 N.E.2d 772, 775-76 (Ill. App. Ct. 1987).

113. See, e.g., *Gordon*, 574 F.2d at 1184; *Bexiga*, 290 A.2d at 282.

114. See *infra* note 138 and accompanying text.

115. See *infra* note 143 and accompanying text.

116. 290 A.2d 281 (N.J. 1972).

117. See OWEN, *supra* note 25, at 561-62.

118. *Bexiga*, 290 A.2d at 282.

119. *Id.* at 282-83.

120. *Id.* at 282.

121. *Id.* at 283.

122. *Id.* at 282.

123. *Id.*

down the chain of distribution.¹²⁴ The court reasoned that the manufacturer was generally in the best position to identify and reduce product-related risks. In the court's view:

The public interest in assuring that safety devices are installed demands more from the manufacturer than to permit him to leave such a critical phase of his manufacturing process to the haphazard conduct of the ultimate purchaser. The only way to be certain that such devices will be installed on all machines—which clearly the public interest requires—is to place the duty on the manufacturer where it is feasible for him to do so.¹²⁵

Consequently, the court concluded that the jury could have reasonably found that the defendant's punch press was defectively designed and that the trial court erroneously dismissed the plaintiff's case instead of allowing it to go to the jury.¹²⁶

Other courts have endorsed the reasoning of the *Bexiga* Court and concluded that a manufacturer should be held liable if the product is defective when it leaves its possession and that the manufacturer cannot shift the responsibility for installing safety equipment to the ultimate purchaser.¹²⁷ Another group of courts have also refused to allow manufacturers to delegate the responsibility to install safety equipment on their products, but have qualified that duty somewhat.¹²⁸ Thus, in *Dorsey v. Yoder Co.*,¹²⁹ the court held that the manufacturer of a metal slitting machine had a duty to install a guard in front of the cutters because the machine was custom built and the plaintiff's employer had relied on the expertise of the manufacturer's engineers to provide the proper machine for the job orders the purchaser expected to perform.¹³⁰ Other courts have also concluded that a punch press manufacturer had a duty to install guards on their products whenever this was feasible.¹³¹

124. *See id.* at 285.

125. *Id.*

126. *Id.*

127. *See* *Heckman v. Fed. Press Co.*, 587 F.2d 612, 616-17 (3d Cir. 1978); *Wheeler v. Standard Tool & Mfg. Co.*, 359 F. Supp. 298, 303 (S.D.N.Y. 1973), *aff'd*, 497 F.2d 897 (2d Cir. 1974); *see also* *Rhoads v. Serv. Mach. Co.*, 329 F. Supp. 367, 376-77 (E.D. Ark. 1971); *Soto v. E.W. Bliss Div. of Gulf & W. Mfg. Co.*, 452 N.E.2d 572, 577-78 (Ill. App. Ct. 1983); *Christopherson v. Hyster Co.*, 374 N.E.2d 858, 872 (Ill. App. Ct. 1978).

128. *See* *Murphy v. L & J Press Corp.*, 558 F.2d 407, 410-11 (8th Cir. 1977); *Dorsey v. Yoder Co.*, 331 F. Supp. 753, 759-60 (E.D. Pa. 1971), *aff'd*, 474 F.2d 1339 (3d Cir. 1973); *Duke v. Gulf & W. Mfg. Co.*, 660 S.W.2d 404, 410-11, 413 (Mo. Ct. App. 1983).

129. 331 F. Supp. 753 (E.D. Pa. 1971).

130. *See id.* at 755-56.

131. *See, e.g.,* *Murphy*, 558 F.2d at 410-12 (remanding for a new trial to determine the issue of feasibility); *Duke*, 660 S.W.2d at 413.

On the other hand, a significant number of courts have declined to follow the *Bexiga* holding.¹³² Although these courts have offered various rationales for their decisions,¹³³ the most common reasons for immunizing manufacturers from liability are that: (1) the products are components rather than finished products;¹³⁴ (2) the product is not unreasonably dangerous when it leaves the manufacturer's control because it is inoperable at that time;¹³⁵ and (3) the products are multifunctional in nature and, therefore, it is not practical for manufacturers to install safety devices unless they know the purpose for which the machines will be used.¹³⁶

Under the first approach, the court characterizes the product as unfinished when it leaves the manufacturer's control.¹³⁷ The purchaser or a third-party completes the manufacturing process and, as such, assumes responsibility for equipping the product with appropriate safety devices.¹³⁸ *Verge v. Ford Motor Co.*¹³⁹ illustrates this approach. The plaintiff in *Verge* was a member of a garbage collection crew and was injured when their garbage truck backed into him.¹⁴⁰ The truck's cab and chassis were manufactured by Ford, but another party, Elgin-Leach Co. ("Leach"), added a compactor and other equipment in order to enable the vehicle to operate as a garbage collection truck.¹⁴¹ *Verge* brought suit against both Ford and Leach, arguing that the vehicle's design was defective because, inter alia, the defendants failed to equip it with a back-up buzzer or other device that would warn members of the garbage collection crew that the garbage truck was reversing.¹⁴²

The plaintiff settled with Leach before trial and the jury held in favor of *Verge* in his suit against Ford.¹⁴³ On appeal, a federal circuit court observed that the question was "whether the responsibility for

132. See, e.g., *Gordon v. Niagara Mach. & Tool Works*, 574 F.2d 1182, 1190 (5th Cir. 1978); *Verge v. Ford Motor Co.*, 581 F.2d 384, 386-87 (3d Cir. 1978); *Bautista v. Verson Allsteel Press Co.*, 504 N.E.2d 772, 776 (Ill. App. Ct. 1987).

133. See *Powell v. E.W. Bliss Co.*, 529 F. Supp. 48, 53-54 (E.D. Pa. 1981) (compliance with industry standards or trade custom); *Jimenez v. Gulf & W. Mfg. Co.*, 458 So. 2d 58, 60 & n.3 (Fla. Dist. Ct. App. 1984) (superseding cause).

134. See, e.g., *Verge*, 581 F.2d at 386-87, 389.

135. See, e.g., *Bautista*, 504 N.E.2d at 776.

136. See, e.g., *Gordon*, 574 F.2d at 1190.

137. See *Verge*, 581 F.2d at 386-87; *Christner v. E. W. Bliss Co.*, 524 F. Supp. 1122, 1125 (M.D. Pa. 1981); *Powell v. E. W. Bliss Co.*, 529 F. Supp. 48, 52 (E.D. Pa. 1981).

138. See *Verge*, 581 F.2d at 387, 389; *Christner*, 524 F. Supp. at 1125; *Powell*, 529 F. Supp. at 51-52; *Fredericks v. Gen. Motors Corp.*, 311 N.W.2d 725, 727-28 (Mich. 1981).

139. 581 F.2d 384 (3d Cir. 1978).

140. *Id.* at 385.

141. *Id.* at 387.

142. *Id.* at 385-86.

143. *Id.* at 386.

installing such a device should be placed solely upon the company that manufactured the cab and chassis [i.e., Ford], or solely upon the company who modified the chassis by adding the compactor unit [i.e., Leach] or upon both.”¹⁴⁴ To answer this question, the court considered three factors: (1) trade custom as to what stage in the manufacturing process the safety device in question would be installed; (2) the relative expertise of the parties with respect to the relevant design and safety issues; and (3) the stage of the manufacturing process at which it was most feasible to install such a safety device.¹⁴⁵

As far as the first factor was concerned, the only evidence presented at trial was a statement by David Leach that in his experience safety devices were generally installed by the truck manufacturer.¹⁴⁶ However, he did not express any opinion about the practice of the garbage truck industry generally.¹⁴⁷ Consequently, the court concluded that there was no basis for assuming that the industry custom was for the manufacturer to delegate this responsibility to others.¹⁴⁸ On the other hand, the court determined that the second factor favored Ford because Leach had more expertise than Ford about the design of garbage trucks.¹⁴⁹ Finally, the court determined that it was more practical for Leach to install warning devices on the final product than Ford.¹⁵⁰ As the court observed, the Ford cab and chassis were designed for multi-purpose uses and many of these uses would not require a backup buzzer.¹⁵¹ Therefore, it would not be efficient for Ford to install these warning devices on all of its vehicles.¹⁵² Since two of the three factors supported imposing a duty on Leach rather than Ford, the court held that Ford should not be held liable for Verge’s injuries.¹⁵³

A second theory is that an unfinished product is not unreasonably dangerous when it leaves the manufacturer’s possession because it is inoperable and, therefore, incapable of causing harm in that condition.¹⁵⁴ *Bautista v. Verson Allsteel Press Co.*¹⁵⁵ provides a good example of this reasoning. The plaintiff in *Bautista* was injured while operating a brake

144. *Id.*

145. *Id.* at 387.

146. *Id.* at 387-88.

147. *Id.* at 388.

148. *Id.*

149. *Id.*

150. *Id.*

151. *Id.*

152. *Id.* at 389.

153. *Id.*

154. *See, e.g.,* *Bautista v. Verson Allsteel Press Co.*, 504 N.E.2d 772, 776 (Ill. App. Ct. 1987).

155. 504 N.E.2d 772 (Ill. App. Ct. 1987).

press.¹⁵⁶ The plaintiff alleged that the machine was defective because it had no safety devices at the point of operation when it was sold to his employer by the manufacturer.¹⁵⁷ However, the court concluded that because the brake press was delivered to the plaintiff's employer without any dies, it had no point of operation to be guarded against.¹⁵⁸ Consequently, the court affirmed a jury verdict in favor of the defendant manufacturer.¹⁵⁹

Another approach is to distinguish between products that are "unifunctional" or "single-purpose" and those that are "multifunctional" or "multi-purpose" in nature.¹⁶⁰ The idea behind this approach is that the manufacturer of a unifunctional machine knows how it will be used and, therefore, can incorporate appropriate safety devices into the machine's design.¹⁶¹ In contrast, when a machine is multifunctional, the manufacturer will probably not know in advance how it will be used and, therefore, should not be required to install safety devices that may interfere with efficient operation of the machine.¹⁶²

The court adopted this rationale in an early case, *Gordon v. Niagara Machine & Tool Works*.¹⁶³ The plaintiff in *Gordon* was injured while operating a punch press manufactured by the defendant.¹⁶⁴ The accident occurred when the press cycled unexpectedly while being manually operated.¹⁶⁵ Because the press was designed for multiple uses, it was sold without dies and without guards or other safety equipment.¹⁶⁶ Although the plaintiff's employer installed a two-palm system for manual operation, this safety device provided no protection against a repeat stroke.¹⁶⁷ The plaintiff sued Niagara Machine and Tool Works, claiming that the punch press was sold in a defective condition.¹⁶⁸ On

156. *Id.* at 774.

157. *Id.* at 775. The point of operation is the area between the ram die and the bed die. *Id.* at 774.

158. *Id.*

159. *Id.* at 776.

160. See *Gordon v. Niagara Mach. & Tool Works*, 574 F.2d 1182, 1190 (5th Cir. 1978).

161. See *Bilotta v. Kelley Co.*, 346 N.W.2d 616, 624 (Minn. 1984).

162. See *Johnson v. Niagara Mach. & Tool Works*, 555 So. 2d 88, 92 (Ala. 1989); *Savage Mfg. & Sales, Inc. v. Doser*, 540 N.E.2d 402, 404 (Ill. App. Ct. 1989); *Villar v. E.W. Bliss Co.*, 350 N.W.2d 920, 922 (Mich. Ct. App. 1984); *Westbrock v. Marshalltown Mfg. Co.*, 473 N.W.2d 352, 356 (Minn. Ct. App. 1991); but see *Scott v. Dreis & Krump Mfg. Co.*, 326 N.E.2d 74, 84-85 (Ill. App. Ct. 1975) (holding the manufacturer liable for failing to provide a guard for a foot pedal because it was not part of the multifunctional nature of the machine).

163. 574 F.2d 1182 (5th Cir. 1978).

164. *Id.* at 1184.

165. *Id.*

166. *Id.* at 1184-85.

167. *Id.* at 1185.

168. *Id.* at 1189-90.

appeal, a federal appeals court concluded that the punch press was not defectively designed merely because it was marketed without any safety devices.¹⁶⁹ Rejecting the reasoning of the *Bexiga* Court, the court in *Gordon* declared that the duty to install safety equipment should be placed on the purchaser rather than the manufacturer of the punch press.¹⁷⁰ The court observed that because the press was designed for many kinds of operations, it was up to the purchaser to choose the kinds of safety devices that were most appropriate for the machine's intended use.¹⁷¹

While some courts continue to impose liability on a manufacturer who relies on the purchaser to install safety equipment on the product, the modern trend is to allow a manufacturer to delegate this responsibility under certain circumstances.¹⁷² One group of courts follows the reasoning of *Verge* and permits such delegation when they conclude that the item is a component rather than a finished product, particularly if it is nonfunctional when it leaves the original manufacturer's possession.¹⁷³ Others require the manufacturer to install appropriate safety equipment when the product can only be used for one purpose, but to allow the manufacturer of a multifunction product to shift the responsibility for installing safety devices to the purchaser who will know how the product will be used.¹⁷⁴

IV. OPTIONAL SAFETY EQUIPMENT FOR COMMERCIAL AND INDUSTRIAL PRODUCTS

This portion of the Article considers whether manufacturers of commercial or industrial products can offer safety equipment as an option instead of providing it as standard equipment. The same issue will be discussed in connection with consumer products in Part V. Some courts impose liability on the manufacturer if they determine that a product was defective or unreasonably dangerous as sold (without optional safety devices), taking into account the uses to which it would normally be put.¹⁷⁵ A second group looks to see whether the manufacturer or the purchaser has superior knowledge about the work environment in which the product will be used.¹⁷⁶ Finally, other courts

169. *Id.* at 1190.

170. *Id.*

171. *Id.*

172. *See supra* notes 132-36 and accompanying text.

173. *See supra* note 138 and accompanying text.

174. *See supra* notes 160-71 and accompanying text.

175. *See infra* Part IV.A.

176. *See infra* Part IV.B.

hold manufacturers of unifunctional products liable for failing to install necessary safety devices as standard equipment, but allow manufacturers of multifunctional products to escape liability if they offer safety equipment on an optional basis.¹⁷⁷

A. *Defective as Sold*

Courts in the first category look to whether the product is defective or unreasonably dangerous without optional safety devices, taking into account the uses to which it would normally be put.¹⁷⁸ *Caterpillar Tractor Co. v. Ford*¹⁷⁹ provides a good illustration of this approach. In *Caterpillar*, the plaintiff was killed when a tractor he was driving rolled over and crushed him.¹⁸⁰ The decedent's widow sued, arguing that the tractor was defective because it was not equipped with a rollover protective structure ("ROPS").¹⁸¹ At trial, the evidence showed that Caterpillar offered a ROPS as optional equipment, but that the decedent's employer had declined to purchase it.¹⁸² The jury held in favor of the plaintiff.¹⁸³ On appeal, Caterpillar argued that it was unjust to impose liability for not installing a ROPS when it offered this safety device as optional equipment.¹⁸⁴ In response, the Alabama Supreme Court declared: "We cannot agree. If the tractor was defective in the condition in which it was sold, liability for resulting injury cannot be escaped by showing that the customer could have but did not buy an item which would have removed the defect."¹⁸⁵ Accordingly, the court affirmed the lower court's decision in the plaintiff's favor.¹⁸⁶

A federal district court followed a similar approach in *Tannebaum v. Yale Materials Handling Corp.*,¹⁸⁷ but concluded that the product was

177. See *infra* Part IV.C.

178. See, e.g., *Pahuta v. Massey-Ferguson, Inc.*, 170 F.3d 125, 133 (2d Cir. 1999); *Nettles v. Electrolux Motor AB*, 784 F.2d 1574, 1578-80 (11th Cir. 1986); *Tannebaum v. Yale Materials Handling Corp.*, 38 F. Supp. 2d 425, 433 (D. Md. 1999); *Beron v. Kramer-Trenton Co.*, 402 F. Supp. 1268, 1270-71, 1277 (E.D. Pa. 1975); *Caterpillar Tractor Co. v. Ford*, 406 So. 2d 854, 857 (Ala. 1981); *Dean v. Toyota Indus. Equip. Mfg., Inc.*, 540 S.E.2d 233, 237 (Ga. Ct. App. 2000); *Pigliavento v. Tyler Equip. Corp.*, 669 N.Y.S.2d 747, 748-49 (App. Div. 1998); *Coleman v. Cintas Sales Corp.*, 40 S.W.3d 544, 548-49 (Tex. Ct. App. 2001).

179. 406 So. 2d 854 (Ala. 1981).

180. *Id.* at 855.

181. *Id.*

182. See *id.* at 856.

183. *Id.* at 855.

184. *Id.* at 857.

185. *Id.*

186. *Id.* at 859.

187. 38 F. Supp. 2d 425 (D. Md. 1999).

not defective as sold.¹⁸⁸ In *Tannebaum*, a supermarket employee was injured while operating a forklift to lift bales of cardboard boxes into a trailer.¹⁸⁹ The cardboard bales were loaded in such a way that the topmost bale exceeded the height of the forklift's "load backrest," thereby allowing the 700-pound bale to fall into the operator's compartment.¹⁹⁰ The cardboard bale fell into the operator's compartment, struck him in the head, and knocked him out of the forklift.¹⁹¹ The heavy bale then fell on him, injuring his legs.¹⁹²

At the time the forklift was purchased by the plaintiff's employer, buyers could select a number of safety devices to install on it, depending on the machine's intended use.¹⁹³ Among the options that the plaintiff's employer declined to purchase was a side entry modification with a rear guard and a wire mesh overhead covering.¹⁹⁴ The plaintiff sued the manufacturer, Yale, alleging that the forklift was defectively designed because it did not have these safety features.¹⁹⁵ He also claimed that the forklift was defective because it did not have a rear door—a safety feature that was not available as an option at the time.¹⁹⁶ After discovery was completed, Yale moved for summary judgment.¹⁹⁷ The federal district court, applying Maryland law, granted the defendant's motion, concluding that the forklift was not defectively designed.¹⁹⁸

In its analysis of the plaintiff's design defect claim, the court rejected the defendant's contention that the consumer expectation test should be used and instead applied the risk-utility test as suggested by the plaintiff.¹⁹⁹ Nevertheless, the court found that most of the factors involved in its risk-utility analysis, as identified by a federal appeals court *Binakonsky v. Ford Motor Co.*,²⁰⁰ weighed overwhelmingly in favor of the defendant.²⁰¹ In particular, the court emphasized that the safety options suggested by the plaintiff would either increase the size of the forklift, and thereby diminish its ability to operate in a narrow-aisle

188. *Id.* at 433, 435.

189. *Id.* at 426-27.

190. *Id.* at 427.

191. *Id.*

192. *Id.*

193. *Id.* at 428.

194. *Id.*

195. *Id.* at 430.

196. *Id.* at 428, 430.

197. *See id.* at 426.

198. *Id.* at 426, 435.

199. *Id.* at 431.

200. 133 F.3d 281 (4th Cir. 1998).

201. *Tannebaum*, 38 F. Supp. 2d at 431-33 (citation omitted). *See also Binakonsky*, 133 F.3d at 285-89.

environment, or they would create new hazards by obstructing the operator's view.²⁰² For these reasons, the court concluded that the forklift was not defectively designed.²⁰³

B. Superior Knowledge

A second approach focuses on the respective knowledge of the purchaser and the manufacturer.²⁰⁴ Not surprisingly, most of the courts that have engaged in this type of analysis have concluded that the purchaser's knowledge is superior to that of the manufacturer and have allowed the manufacturer to delegate the responsibility for choosing safety equipment.²⁰⁵ *Biss v. Tenneco, Inc.*²⁰⁶ is one of the leading proponents of this approach.²⁰⁷ The decedent in that case ran off the road while driving a loader and struck a telephone pole.²⁰⁸ The vehicle in question had been purchased by Vincent Centers, the decedent's employer, for use in his logging business.²⁰⁹ The decedent's personal representative brought suit against the manufacturer of the logger, alleging that it was defectively designed because it was not equipped with a ROPS.²¹⁰ However, the lower court dismissed the case and this decision was affirmed on appeal.²¹¹

The parties agreed that defendant, Tenneco, offered a ROPS, manufactured by another vendor, as optional equipment.²¹² The court ruled that the manufacturer fulfilled its duty by offering to provide a ROPS on an optional basis.²¹³ The court reasoned that the possibility of a rollover was not an inherent danger of operating the loader, but was associated with the particular job and the work site.²¹⁴ Consequently, the manufacturer would have no way to know in advance whether it was

202. *Id.* at 432-33.

203. *Id.* at 435.

204. See, e.g., *Austin v. Clark Equip. Co.*, 48 F.3d 833, 836 (4th Cir. 1995); *Scallan v. Duriron Co.*, 11 F.3d 1249, 1254 (5th Cir. 1994); *Derrick v. Yoder Co.*, 410 N.E.2d 1030, 1038 (Ill. App. Ct. 1980); *Jackson v. Bomag GmbH*, 638 N.Y.S.2d 819, 823 (App. Div. 1996); *Fallon v. Clifford B. Hannay & Son, Inc.*, 550 N.Y.S.2d 135, 136 (App. Div. 1989); *Biss v. Tenneco, Inc.*, 409 N.Y.S.2d 874, 876-77 (App. Div. 1978); *Banzhaf v. ADT Sec. Sys. Sw., Inc.*, 28 S.W.3d 180, 187 (Tex. Ct. App. 2000).

205. See, e.g., *Austin*, 48 F.3d at 837; *Scallan*, 11 F.3d at 1254; *Jackson*, 638 N.Y.S.2d at 823; *Fallon*, 550 N.Y.S.2d at 137, 139; *Banzhaf*, 28 S.W.3d at 187.

206. 409 N.Y.S.2d 874 (App. Div. 1978).

207. *Id.* at 876-77.

208. *Id.* at 875.

209. *Id.*

210. *Id.*

211. *Id.* at 876 (noting that the appellate court affirmed the dismissal on other grounds).

212. *Id.*

213. *Id.*

214. *Id.*

cost-effective to install a ROPS on any particular vehicle.²¹⁵ According to the court:

If knowledge of available safety options is brought home to the purchaser, the duty to exercise reasonable care in selecting those appropriate to the intended use rests upon him. He is the party in the best position to exercise an intelligent judgment to make the trade-off between cost and function, and it is he who should bear the responsibility if the decision on optional safety equipment presents an unreasonable risk to users.²¹⁶

Because the rollover risk was job and site specific, the purchaser, rather than the manufacturer, was in the best position to identify a product-related risk and take cost-effective measures to reduce or eliminate it.²¹⁷

The *Biss* Court also expressed concern that holding the manufacturer and others in the distributive chain liable for failing to provide a ROPS as standard equipment under these circumstances would impose an unreasonable burden on them and unnecessarily increase the cost of their products:

To hold otherwise casts the manufacturer and supplier in the role of insurers answerable to injured parties in any event, because the purchaser of the equipment for his own reasons, economic or otherwise, elects not to purchase available options to ensure safety. The “legal responsibility, if any, for injury caused by machinery which has possible dangers incident to its use should be shouldered by the one in the best position to have eliminated those dangers.”²¹⁸

Accordingly, the court in *Bliss* affirmed the lower court’s decision in favor of the manufacturer.²¹⁹

The Texas Court of Appeals in *Banzhaf v. ADT Security Systems Southwest, Inc.*²²⁰ followed the *Biss* Court’s approach, holding that the plaintiffs’ employer was in the best position to decide which features to include in the security system that it purchased from the defendant manufacturer.²²¹ In that case, one employee was killed and another severely wounded during a robbery at Herman’s Sporting Goods (“Herman’s”), where they worked.²²² In their suit against ADT, the provider of the store’s security system, the plaintiffs alleged that the

215. *Id.* at 876-77.

216. *Id.*

217. *See id.* at 877.

218. *Id.* (quoting *Micallef v. Miehle Co.*, 348 N.E.2d 571, 578 (N.Y. 1976)).

219. *Id.*

220. 28 S.W.3d 180 (Tex. Ct. App. 2000).

221. *Id.* at 187.

222. *Id.* at 183.

alarm system was defectively designed because it did not have a “duress code” as standard equipment.²²³ A duress code enables the user of a security system to silently trigger an alarm while being held hostage or otherwise endangered.²²⁴

Although ADT offered a duress code feature as an option, Herman’s did not choose to purchase it.²²⁵ There were two reasons why Herman’s declined to incorporate this feature into its security system. First, the system was designed to be activated only when the store was closed and no employees were present.²²⁶ Second, Herman’s considered the duress code feature to be potentially dangerous to its employees.²²⁷ Instead, the store’s written security policy directed employees not to resist or endanger themselves during a robbery attempt.²²⁸ The plaintiffs, on the other hand, contended that ADT should have included the duress code as a standard feature rather than an optional one.²²⁹ In fact, their expert witness went so far as to compare a duress code to an airbag in an automobile, maintaining that it was a safety feature that no responsible manufacturer would fail to install as standard equipment.²³⁰

However, the Texas Court of Appeals refused to treat the duress code as a safer alternative design under the circumstances of this case, but instead deferred to Herman’s judgment about the nature of its security system.²³¹ According to the court:

The deterrence of crime involves many complex issues. Herman’s adopted a policy of refusing the duress code because it believed that the use of the duress code might endanger employees. Herman’s selected a security system to protect its property when its employees were not there. We refuse to abrogate a store owner’s right to select the security devices and services that it deems best to protect its property or its employees. We find, as a matter of law, that plaintiffs have shown no defectively designed product in this case.²³²

Thus, the court affirmed the lower court’s judgment in favor of ADT on this issue.²³³

223. *Id.* at 183, 187.

224. *Id.* at 183.

225. *Id.*

226. *Id.* at 184.

227. *Id.* at 184 n.2.

228. *Id.*

229. *Id.* at 187.

230. *See id.*

231. *Id.*

232. *Id.*

233. *Id.*

C. *Single-Purpose Versus Multi-Purpose Use Products*

A third approach gives considerable weight to the distinction between single-purpose and multi-purpose products.²³⁴ Under this approach, manufacturers are required to install safety devices as standard equipment on unfunctional products because they know the purposes for which they will be used and the work environment in which they will operate.²³⁵ However, manufacturers are given more leeway to offer safety equipment on an optional basis when the product can be used for more than one purpose.²³⁶

One of the first cases to distinguish between unfunctional and multifunctional products was *Turney v. Ford Motor Co.*²³⁷ The plaintiff in *Turney* was injured while mowing grass when his tractor struck a hidden burl and overturned.²³⁸ Turney sued the tractor's manufacturer, Ford, alleging that the tractor was unreasonably dangerous because it did not have a roll bar and seat belt system, known as ROPS.²³⁹ The jury found in favor of Ford and the plaintiff appealed, claiming that the trial court should not have permitted the defendant to offer evidence about the availability of a ROPS as optional equipment.²⁴⁰

On appeal, an Illinois court acknowledged that as a general rule, a manufacturer must design a reasonably safe product and may not delegate that duty to a dealer or to the purchaser of the product.²⁴¹ However, the court explained that the tractor was multifunctional and was sold for use in a variety of workplace environments, including dairy and cattle farms, factory yards, and greenhouses, whose low clearances made it impracticable for the manufacturer to install roll bars as standard equipment.²⁴² Consequently, the manufacturer could introduce evidence of the multifunctional nature of a product as a factor for the jury to consider in its determination of whether a product was unreasonably dangerous.²⁴³ It also concluded that the availability of a ROPS as optional equipment was related to the multifunctional nature of the product and, therefore, was probative as to whether the tractor was

234. See, e.g., *Turney v. Ford Motor Co.*, 418 N.E.2d 1079, 1083 (Ill. App. Ct. 1981); *Bilotta v. Kelley Co.*, 346 N.W.2d 616, 624 (Minn. 1984).

235. See *Turney*, 418 N.E.2d at 1083; *Bilotta*, 346 N.W.2d at 624.

236. See, e.g., *Bexiga v. Havir Mfg. Corp.*, 290 A.2d 281, 284 (N.J. 1972).

237. 418 N.E.2d 1079, 1083 (Ill. App. Ct. 1981).

238. *Id.* at 1082.

239. *Id.*

240. *Id.* at 1081.

241. *Id.* at 1083 (citations omitted).

242. *Id.*

243. *Id.*

unreasonably dangerous.²⁴⁴ Accordingly, the court affirmed the lower court's judgment in favor of Ford.²⁴⁵

In contrast, the Minnesota Supreme Court in *Bilotta v. Kelley Co.*²⁴⁶ held the manufacturer of a mechanical dockboard liable for injuries to a warehouse employee after concluding that the product was not multifunctional in nature.²⁴⁷ The defendant's dockboards were employed to bridge the gap between a carrier, such as a truck-trailer, and a loading dock.²⁴⁸ Forklift trucks would be used to transfer goods from the carrier across the dockboard ramp to the warehouse.²⁴⁹ It was possible to raise or lower the ramp mechanically to accommodate differences in height between the carrier and the loading dock.²⁵⁰ When in use, one end of the dockboard was supported only by the carrier.²⁵¹ To prevent the dockboard from falling if the carrier pulled or rolled away, the manufacturer offered a fixed-leg safety system and a cross-traffic leg system that would support the dockboard if this occurred.²⁵² In addition, it offered a panic stop as a \$200 option in connection with the cross-traffic leg system.²⁵³ The panic stop was designed to sense if the ramp was falling too fast and stop it.²⁵⁴ The plaintiff's employer purchased a dockboard without the optional panic stop device.²⁵⁵

The accident occurred when a forklift truck became stuck with its right wheels on the dock and its left wheels on the ramp.²⁵⁶ In order to free the forklift, the driver of the truck-trailer pulled away from the dock, thereby removing the dockboard's support and causing the ramp under the weight of the forklift to fall to its lowest position.²⁵⁷ The forklift then tipped over and pinned the plaintiff by the neck against a doorjamb, depriving his brain of oxygen long enough to cause permanent brain damage.²⁵⁸ In his lawsuit against the manufacturer of the dockboard, the plaintiff contended that the product was unreasonably dangerous because

244. *Id.*

245. *Id.* at 1087.

246. 346 N.W.2d 616 (Minn. 1984).

247. *Id.* at 624.

248. *Id.* at 619.

249. *Id.*

250. *Id.*

251. *Id.*

252. *Id.* at 619-20.

253. *Id.* at 620.

254. *Id.*

255. *Id.*

256. *Id.*

257. *Id.*

258. *Id.*

it was sold without a panic button.²⁵⁹ The jury awarded the plaintiff \$2.3 million.²⁶⁰

On appeal, the manufacturer urged the court to adopt a rule that provided that the offer of an optional safety device by the manufacturer to a knowledgeable purchaser passes to that purchaser the risk of loss from use of the product if he or she declines to purchase the safety device in question.²⁶¹ However, the court pointed out that the defendant's proposed rule would apply to products that were not multifunctional and whose functions would not be impaired if an optional safety device was installed as standard equipment.²⁶² The court also observed that the defendant's approach would allow manufacturers to circumvent their duty to provide reasonably safe products by marketing dangerous "stripped down" machines instead.²⁶³ In this case, the court found that the dockboard was not multifunctional and that the panic stop device would not have impaired its function.²⁶⁴ In addition, even if providing a particular safety device as standard equipment would cost the manufacturer more money, take more time, or decrease sales, it should not operate as a complete defense, but should only be considered as a factor within the balancing approach used by the jury to determine if the product was defective or unreasonably dangerous when it left the manufacturer's control.²⁶⁵ Unfortunately for the plaintiff, the court concluded that the trial court had incorrectly instructed the jury on the proper test for design defects, reversed the lower court's judgment, and ordered a new trial on the issue of liability.²⁶⁶

D. The Scarangella Approach

Finally, in recent years, the New York courts have developed a rule that incorporates some aspects of the other approaches discussed above.²⁶⁷ This rule was first enunciated in 1999 by the New York Court of Appeals in *Scarangella v. Thomas Built Buses, Inc.*²⁶⁸ The plaintiff in

259. *See id.*

260. *Id.* at 619.

261. *Id.* at 624.

262. *Id.*

263. *Id.* at 624-25 (internal quotation marks omitted).

264. *Id.* at 624.

265. *Id.*

266. *Id.* at 623, 625.

267. *See, e.g.,* Passante v. Agway Consumer Prods., Inc., 909 N.E.2d 563, 566-67 (N.Y. 2009); Scarangella v. Thomas Built Buses, Inc., 717 N.E.2d 679, 683 (N.Y. 1999); Beemer v. Deere & Co., 794 N.Y.S.2d 253, 254 (App. Div. 2005); Bova v. Caterpillar, Inc., 761 N.Y.S.2d 85, 86-87 (App. Div. 2003); Geddes v. Crown Equip. Corp., 709 N.Y.S.2d 770, 771 (App. Div. 2000).

268. 717 N.E.2d 679 (N.Y. 1999).

that case, a school bus driver, was struck and injured on his employer's premises by another school bus that was backing up.²⁶⁹ The manufacturer of the school bus offered a back-up alarm as an optional safety feature.²⁷⁰ The alarm was designed to automatically sound whenever the bus driver shifted into reverse gear.²⁷¹ However, the plaintiff's employer, Huntington Coach Corporation ("Huntington"), declined to purchase it for any of the buses that it acquired from Thomas Built Buses in 1988.²⁷²

The plaintiff based her design defect case on the proposition that a manufacturer should install a back-up alarm system as standard equipment because a blind spot always existed when the vehicle was operated in reverse.²⁷³ The plaintiff also contended that the bus was defectively designed because it did not have proper mirrors.²⁷⁴ The trial court refused to allow the plaintiff to submit evidence on the absence of a back-up alarm system and directed a verdict in favor of the defendant on the mirror issue.²⁷⁵ The New York Court of Appeals declared that three factors must exist in order for a manufacturer to shift the responsibility for determining product safety to the purchaser:

The product is not defective where the evidence and reasonable inferences therefrom show that: (1) the buyer is thoroughly knowledgeable regarding the product and its use and is actually aware that the safety feature is available; (2) there exist normal circumstances of use in which the product is not unreasonably dangerous without the optional equipment; and (3) the buyer is in a position, given the range of uses of the product, to balance the benefits and the risks of not having the safety device in the specifically contemplated circumstances of *the buyer's* use of the product.²⁷⁶

According to the court, when these factors are present, the buyer is in a better position to evaluate the costs and benefits assessment of an optional safety device.²⁷⁷ On the other hand, when these factors are not present, strict liability is appropriate because the manufacturer is in the best position to discover and prevent design defects.²⁷⁸

269. *Id.* at 680.

270. *Id.*

271. *Id.*

272. *Id.*

273. *Id.* at 681.

274. *Id.*

275. *Id.*

276. *Id.* at 683.

277. *Id.*

278. *Id.* (citation omitted).

Applying this analysis to the facts in *Scarangella*, the court concluded that all of the enumerated factors were present. First, Huntington had owned and operated school buses for many years and, therefore, was a highly knowledgeable buyer.²⁷⁹ Second, because bus drivers employed other tactics to compensate for the blind spot, the risk of harm from the absence of a back-up alarm was not significant.²⁸⁰ Finally, Huntington was in a better position than the defendant to evaluate the risks of not using a back-up alarm system, given the foreseeable uses of the bus.²⁸¹ Since the plaintiff failed to submit any proof to negate these factors, the court affirmed the lower court's judgment in favor of the defendant.²⁸²

A number of New York intermediate appellate courts have followed the *Scarangella* Court's approach in recent years.²⁸³ In most cases, this has resulted in a decision for the defendant.²⁸⁴ Thus, for example, several courts have relied on *Scarangella* to exonerate forklift manufacturers who offered back-up alarms as optional instead of installing them as standard equipment.²⁸⁵ In another case, an appellate court reversed a ruling for a restaurant worker who was scalded while carrying a container of hot grease to a disposal receptacle.²⁸⁶ The court applied the *Scarangella* factors to conclude that the fryer was not unreasonably dangerous because the manufacturer offered an optional, wheeled, disposal unit in order to transport hot grease more safely instead of including it as standard equipment.²⁸⁷

On the other hand, several courts have found in the plaintiff's favor.²⁸⁸ For example, in *Beemer v. Deere & Co.*,²⁸⁹ the plaintiff was injured while operating a tractor with a backhoe attachment.²⁹⁰ He hit the back of his head and neck against the roll guard when the tractor

279. *Id.*

280. *Id.*

281. *Id.* at 683-84.

282. *Id.* at 684.

283. *See, e.g.,* *Cordani v. Thompson & Johnson Equip. Co.*, 792 N.Y.S.2d 675, 677 (App. Div. 2005); *Bova v. Caterpillar, Inc.*, 761 N.Y.S.2d 85, 86-87 (App. Div. 2003); *Geddes v. Crown Equip. Corp.*, 709 N.Y.S.2d 770, 771 (App. Div. 2000).

284. *See, e.g.,* *Cordani*, 792 N.Y.S.2d at 677, 679-80; *Bova*, 761 N.Y.S.2d at 86-87; *Geddes*, 709 N.Y.S.2d at 771.

285. *See, e.g.,* *Cordani*, 792 N.Y.S.2d at 677; *Bova*, 761 N.Y.S.2d at 86-87; *Geddes*, 709 N.Y.S.2d at 771.

286. *See* *Warlikowski v. Burger King Corp.*, 780 N.Y.S.2d 608, 610 (App. Div. 2004).

287. *Id.*

288. *See, e.g.,* *Campbell v. Int'l Truck & Engine Corp.*, 822 N.Y.S.2d 188, 189 (App. Div. 2006); *Beemer v. Deere & Co.*, 794 N.Y.S.2d 253, 254-55 (App. Div. 2005).

289. 794 N.Y.S.2d 253 (App. Div. 2005).

290. *Id.* at 254.

“jarred” unexpectedly.²⁹¹ The plaintiff contended that the tractor was defectively designed because it was not equipped with a taller roll guard.²⁹² In reply, the manufacturer pointed out that its dealer had offered to install a taller roll guard as optional equipment, but that the plaintiff’s employer had declined to purchase it.²⁹³ The trial court granted the manufacturer’s motion for summary judgment.²⁹⁴ However, the appeals court reversed, finding that the manufacturer had not offered sufficient proof that all three *Scarangella* factors were met to justify a summary judgment in its favor.²⁹⁵

More recently, the Court of Appeals upheld the denial of a manufacturer’s motion for summary judgment in *Passante v. Agway Consumer Products, Inc.*²⁹⁶ In *Passante*, a worker was injured while using a mechanical dock leveler at his employer’s warehouse.²⁹⁷ The plaintiff was “walking down” the dock leveler in order to ensure that the platform was resting on the tractor trailer that he was unloading.²⁹⁸ As he was performing this task, the tractor trailer pulled away before the platform was properly secured, causing it to fall back to a pendent position.²⁹⁹ This caused Passante to fall onto a cement and steel grate below, resulting in serious injury.³⁰⁰

The manufacturer offered an optional safety device called a “Dok-Lok” that was designed to warn workers when they could safely enter the trailer.³⁰¹ However, the plaintiff’s employer declined to purchase this device because it would require an additional worker to operate it.³⁰² The plaintiff sued both Rite-Hite, the manufacturer of the dock leveler, and Mullen Industrial Handling Corp. (“Mullen”), the seller of the dock leveler, claiming that the dock leveler was defectively designed because it was not equipped with a warning device such as the Dok-Lok.³⁰³ The trial court refused to grant Mullen’s motion for summary judgment.³⁰⁴ A New York appellate division court reversed and dismissed the plaintiff’s

291. *Id.* (internal quotation marks omitted).

292. *See id.*

293. *Id.*

294. *Id.*

295. *Id.* at 254-55.

296. 909 N.E.2d 563, 566, 568 (N.Y. 2009).

297. *Id.* at 563.

298. *Id.* at 564 (internal quotation marks omitted).

299. *Id.*

300. *Id.*

301. *Id.*

302. *Id.*

303. *Id.* at 563-65.

304. *Id.* at 566.

lawsuit.³⁰⁵ On appeal before the New York Court of Appeals, both the manufacturer and seller relied on the reasoning of the *Scarangella* case.³⁰⁶ The court acknowledged that *Scarangella's* first requirement was met since the plaintiff's employer was familiar with dock levelers and was aware that the Dok-Lok was available as optional equipment.³⁰⁷ However, the court concluded that summary judgment for the defendants was not warranted because they had not shown that the dock leveler could normally be used in circumstances in which it was not unreasonably dangerous without a trailer restraint or warning system such as a Dok-Lok.³⁰⁸

V. OPTIONAL SAFETY EQUIPMENT AND CONSUMER PRODUCTS

As the foregoing discussion suggests, courts seem willing in many cases to allow purchasers to make safety decisions about industrial or commercial products. But are they also willing to permit retail consumers to make the same sort of decisions about household or recreational products? Surprisingly, there are relatively few appellate court cases on this issue. However, what little case law there is suggests that courts tend to follow the same approaches as they do in the industrial machinery cases.³⁰⁹ That is to say, they focus on such factors as: (1) the condition of the product as sold; (2) whether the consumer has superior knowledge about the intended use of the product and the risks associated with this use; and (3) whether the product is a single-purpose product or whether it has multiple uses. Finally, some courts employ the *Scarangella* case's multi-factor approach.

305. *Passante v. Agway Consumer Prods., Inc.*, 741 N.Y.S.2d 624, 625-26 (App. Div. 2002), modified and *aff'd*, 909 N.E.2d 563 (N.Y. 2009).

306. *Passante*, 909 N.E.2d at 566.

307. *Id.* at 567.

308. *Id.* at 567-68.

309. *Compare* *Miller v. Dvornik*, 501 N.E.2d 160, 163-64 (Ill. App. Ct. 1986) (applying the condition as sold test in a retail consumer case), with *Caterpillar Tractor Co. v. Ford*, 406 So. 2d 854, 857 (Ala. 1981) (applying the condition as sold test in an industrial machinery case); *compare* *Rainbow v. Albert Elia Bldg. Co.*, 436 N.Y.S.2d 480, 483 (App. Div. 1981), *aff'd* 434 N.E.2d 1345 (N.Y. 1982) (applying the superior knowledge test in a retail consumer case), with *Biss v. Tenneco, Inc.*, 409 N.Y.S.2d 874, 876-77 (App. Div. 1978) (applying the superior knowledge test in an industrial machinery case); *compare* *Sears, Roebuck & Co. v. Kunze*, 996 S.W.2d 416, 422 (Tex. App. 1999) (applying the multiple use test in a retail consumer case), with *Turney v. Ford Motor Co.*, 418 N.E.2d 1079, 1083 (Ill. App. Ct. 1981) (applying the multiple use test in an industrial machinery case); *compare* *Campbell v. Int'l Truck & Engine Corp.*, 822 N.Y.S.2d 188, 189 (App. Div. 2006) (applying the *Scarangella* test in a retail consumer case), with *Scarangella v. Thomas Built Buses, Inc.*, 717 N.E.2d 679, 683 (setting forth the *Scarangella* test in an industrial machinery case).

A. *Defective as Sold*

The first group of cases ignores the availability of optional safety devices and instead focuses on the condition of the product as sold. *Miller v. Dvornik*³¹⁰ exemplifies this approach. In *Miller*, a nineteen-year-old plaintiff was injured when his motorcycle was struck by an automobile.³¹¹ He brought a strict liability claim against the manufacturer, Yamaha Motor Corporation (“Yamaha”), and its dealer, Performance Center (“Performance”), alleging that the motorcycle was unreasonably dangerous because it was not equipped with safety crash bars.³¹² Yamaha apparently did offer these crash bars as an optional feature.³¹³ Performance moved to dismiss the strict liability claim pursuant to a state statute that protected retail sellers against liability in certain circumstances; the court granted the motion and the plaintiff appealed.³¹⁴ In affirming the lower court’s ruling, the appeals court observed that the appropriate test for liability was the consumer expectation test.³¹⁵ Thus, a seller would be held liable only if the product was “dangerous to an extent beyond that which would be contemplated by the ordinary person with ordinary knowledge common to the community.”³¹⁶

The court also declared that the availability of optional safety devices was not relevant to whether the product as sold was unreasonably dangerous:

Because the focus in determining whether a product is unreasonably dangerous is on the product itself, not on available safety devices, the pivotal question is whether the product in its present state, without installation of optional safety devices, is dangerous because it fails to perform in the manner reasonably to be expected in light of its nature and intended function.³¹⁷

Finally, the court rejected the plaintiff’s claim that he could not be expected to be aware of the danger of riding a motorcycle without crash bars because he was young and inexperienced.³¹⁸ According to the court, any competent motorcyclist should know that he or she might be thrown off the vehicle if it were struck by an automobile or the vehicle might

310. 501 N.E.2d 160 (Ill. App. Ct. 1986).

311. *Id.* at 162.

312. *Id.* at 161-62.

313. *Id.* at 162.

314. *Id.* at 162-63.

315. *Id.* at 163-64.

316. *Id.* at 163 (citations omitted).

317. *Id.* at 163-64 (citations omitted).

318. *Id.* at 164.

topple over onto the driver.³¹⁹ Furthermore, the average motorcyclist would also know that crash bars would not provide any protection if the driver were thrown off the vehicle, but it would protect against injury if the motorcycle toppled over as the result of a collision.³²⁰ Concluding that the plaintiff's injuries were caused by the inherent propensities of the product, the court held that the lower court was correct in its determination that the motorcycle was not unreasonably dangerous.³²¹

There have also been a few reported cases involving optional safety equipment on motor vehicles. For example, in *Gross ex rel. Gross v. Running*,³²² the driver of a Ford F-150 pickup truck was injured while towing another vehicle.³²³ Ford sold the F-150 for off-road use and advertised these vehicles as "'all-out tough' four wheelers."³²⁴ The plaintiff acquired the truck in question for off-road use, but declined to purchase an optional rear bumper because he wished to install his own custom bumper on the vehicle.³²⁵ The accident occurred when the truck's frame rail gave way, allowing a tow hook to strike the plaintiff.³²⁶ The plaintiff brought suit against Ford, alleging that the manufacturer knew that F-150s would be used for off-road use and that it should have provided for safe attachment of a tow hook on the truck's back end.³²⁷ Although the plaintiff's suit against Ford resulted in a jury verdict in his favor, the trial court granted a judgment notwithstanding the verdict in favor of Ford and the plaintiff appealed.³²⁸ On appeal, the court largely ignored the fact that the plaintiff had declined to purchase the optional bumper (which presumably would have been better suited for towing), but instead concluded that the truck as sold was not unreasonably dangerous.³²⁹ According to the court, the truck's framerail was strong enough for towing and it was possible to properly install a tow hook on the vehicle.³³⁰ For these reasons, the court affirmed the lower court's judgment.³³¹

319. *Id.*

320. *Id.*

321. *Id.*

322. 403 N.W.2d 243 (Minn. Ct. App. 1987).

323. *Id.* at 244-45.

324. *Id.* at 244.

325. *Id.*

326. *Id.* at 245.

327. *Id.* at 246.

328. *Id.* at 245.

329. *See id.* at 247.

330. *Id.*

331. *Id.* at 248.

The product seller also prevailed in *McWilliams v. Yamaha Motor Corp. USA*.³³² The plaintiff in that case was injured when his motorcycle was struck by an automobile.³³³ Although the motorcycle did not include any lower limb protective guards or crash bars, these safety features were available as optional equipment.³³⁴ In his suit against the manufacturer, Yamaha, the plaintiff alleged that the motorcycle was defectively designed because it was not equipped with crash bars.³³⁵ Yamaha moved for summary judgment, arguing that it was not liable to the plaintiff under New Jersey law.³³⁶

Ruling for the defendant, a federal district court observed that Section 3(a) of the New Jersey Products Liability Law³³⁷ provided a defense to sellers if the dangerous characteristics of their products were inherent and known to ordinary consumers.³³⁸ Furthermore, the court predicted that the New Jersey Supreme Court would probably find that the risk of lower-leg injury was an open and obvious aspect of operating a motorcycle.³³⁹ Consequently, the court concluded that the motorcycle in question was not defectively designed even though it did not have crash bars.³⁴⁰

The manufacturer also prevailed in *Morrison v. Kubota Tractor Corp.*³⁴¹ The decedent in that case was killed when his used four-wheel model L-235 DT utility tractor rolled over while he was mowing along a steep slope on his farm.³⁴² The plaintiffs based their design defect claim on the fact that the tractor was not equipped with a ROPS.³⁴³ In this case, the manufacturer normally installed a ROPS as standard equipment, but implemented a “delete option” program which allowed customers to sign a written “ROPS waiver” form attesting that they voluntarily declined to purchase ROPS after being informed of its availability and safety advantages.³⁴⁴ There was no evidence whether the original purchaser signed this waiver.³⁴⁵ The trial court directed a verdict for the defendant

332. 780 F. Supp. 251, 252 (D.N.J. 1991), *aff'd in part, rev'd in part*, 987 F.2d 200 (3d Cir. 1993).

333. *Id.*

334. *Id.* at 253.

335. *Id.* at 253-54.

336. *Id.* at 252.

337. N.J. STAT. ANN. § 2A:58C-3(a)(2) (West 2000).

338. *McWilliams*, 780 F. Supp at 256-57 (citing N.J. STAT. ANN. § 2A:58C-3(a)(2)).

339. *Id.* at 260.

340. *Id.* at 262.

341. 891 S.W.2d 422, 425 (Mo. Ct. App. 1994).

342. *Id.* at 423-24.

343. *Id.* at 424.

344. *Id.* (internal quotation marks omitted).

345. *Id.*

on the plaintiffs' negligence claim and the jury found in favor of the defendant on the strict liability claim.³⁴⁶ The plaintiffs appealed the trial court's decision to direct a verdict on the negligence claim.³⁴⁷

The Missouri Court of Appeals reviewed a number of negligence cases involving ROPS and concluded that while manufacturers were generally liable for latent dangerous conditions, they were not responsible when the danger was open and obvious or when the user was aware of it.³⁴⁸ Since the decedent was aware of the danger of a rollover, the court concluded that the manufacturer owed no duty to protect him against rollover related injuries.³⁴⁹ Relying on the reasoning of *Biss*, the court went on to declare that even if the manufacturer owed a duty to the decedent, it fulfilled this duty when it advised him that a ROPS could be purchased as optional equipment.³⁵⁰ Consequently, the appeals court affirmed the trial court's judgment in favor of the defendant on the negligence claim.³⁵¹

On the other hand, in *Trull v. Volkswagen of America, Inc.*,³⁵² a federal appeals court held that an automobile manufacturer could not leave it up to purchasers to decide whether to equip their cars with lap-shoulder seatbelts.³⁵³ One passenger was killed and another was injured when the plaintiff's vehicle, a 1986 Volkswagen Vanagon, collided with another motor vehicle.³⁵⁴ In his suit against Volkswagen, the plaintiff alleged that the company was negligent and the Vanagon was defective because the rear seats were only equipped with lap belts rather than lap-shoulder belts.³⁵⁵ The jury found in the defendant's favor on the strict liability claim, but concluded that Volkswagen was negligent and awarded the passengers more than \$10 million.³⁵⁶

On appeal, the circuit court affirmed the lower court's judgment on the negligence issue.³⁵⁷ However, it observed that lap-shoulder seatbelts were more effective than lap belts alone in restraining forward movement in automobile collisions.³⁵⁸ The court also noted that Volkswagen offered lap-shoulder seatbelts as standard equipment in

346. *Id.* at 425.

347. *Id.*

348. *Id.* at 425-27.

349. *Id.* at 427-28.

350. *Id.* at 428.

351. *Id.* at 429.

352. 320 F.3d 1 (1st Cir. 2002).

353. *See id.* at 9.

354. *Id.* at 3.

355. *Id.*

356. *Id.*

357. *Id.* at 9.

358. *Id.* at 8-9.

Vanagons that it sold in foreign countries.³⁵⁹ Although Volkswagen offered lap-shoulder seatbelts as optional equipment in the United States, the appeals court agreed with the jury that Volkswagen was negligent in not offering them as standard equipment in this country.³⁶⁰ Consequently, it affirmed the lower court's judgment.³⁶¹

B. Superior Knowledge

Several cases have followed the *Biss* Court's superior knowledge approach. For example, in *Rainbow v. Albert Elia Building Co.*,³⁶² a New York court concluded that the purchaser of a motorcycle, not the manufacturer, was in the best position to decide whether to purchase side crash bars.³⁶³ The plaintiff in *Rainbow* suffered an injury to his right leg when he drove his motorcycle onto the shoulder of a narrowed road and struck the rear of a parked car.³⁶⁴ In his suit against Harley Davidson, the manufacturer of the motorcycle, the plaintiff claimed that the vehicle was defectively designed because the manufacturer had failed to install side crash bars to protect his legs in the event of an accident.³⁶⁵

Affirming the lower court's dismissal of the plaintiff's suit against the manufacturer, the appeals court stated that some products, like motorcycles, are inherently dangerous, but they are not unreasonably dangerous as long as they do not subject the user or consumer to unexpected hazards.³⁶⁶ Thus, the consumer's knowledge of the risk played a role in determining whether a manufacturer could offer a safety device as an option instead of installing it on the product as standard equipment.³⁶⁷ Citing *Biss*, the court declared:

In this case we are considering a safety feature that was available as optional equipment. But plaintiff was an experienced motorcyclist and he had been a successful motorcycle racer for many years. He testified that he was familiar with crash bars and their availability and that in fact he had removed crash bars mounted on a previously owned motorcycle, finding them dangerous for his needs. Manifestly, he was in the best position to exercise an intelligent judgment in making the trade-off between cost and function and thus to decide whether crash

359. *Id.* at 9.

360. *Id.*

361. *Id.* at 10.

362. 436 N.Y.S.2d 480 (App. Div. 1981), *aff'd*, 434 N.E.2d 1345 (N.Y. 1982).

363. *Id.* at 483.

364. *Id.* at 481.

365. *Id.*

366. *Id.* at 483, 485 (citation omitted).

367. *Id.* at 482-83 (noting that even though there was an evidentiary issue on appeal, the consumer's knowledge of the risks should be given "proper account").

bars were reasonably necessary on his motorcycle for his purposes. He is the person who should have been required to do so.³⁶⁸

Consequently, the appeals court affirmed the lower court's judgment in favor of Harley Davidson.³⁶⁹

Clemenz v. Sears, Roebuck & Co.,³⁷⁰ an unpublished federal appeals court opinion, also held in favor of the manufacturer.³⁷¹ The plaintiff in *Clemenz* was injured while operating a table saw manufactured by Emerson Electric Company and sold by Sears.³⁷² The plaintiff claimed that the saw was defective because it was not equipped with a safety device known as a miter gauge clamp.³⁷³ The owner's manual indicated that this device was available as optional equipment.³⁷⁴ The lower court granted summary judgment in favor of the defendants, concluding that the plaintiff could not recover if he knew about the safety purpose of the miter gauge clamp before the accident and failed to purchase it.³⁷⁵ On appeal, the circuit court agreed with the defendants' contention that the plaintiff was a sophisticated user and was presumably aware of the availability and safety benefits of a miter gauge clamp.³⁷⁶ The appeals court concluded that the plaintiff's decision to forego purchasing this safety option relieved the defendants from any liability for failure to provide it as standard equipment.³⁷⁷

The manufacturer also prevailed in *Davis v. Caterpillar Tractor Co.*³⁷⁸ The plaintiff in that case was injured when a dead tree fell on him while he was operating a D6C track tractor to clear debris on undeveloped mountain property.³⁷⁹ The plaintiff claimed that the tractor was defectively designed because it did not have a ROPS.³⁸⁰ At the time the plaintiff purchased the tractor, he and the dealer discussed the possibility of equipping the tractor with either a ROPS or a falling object protective structure.³⁸¹ However, the plaintiff decided that he did not need an overhead protective structure because of the nature of the work

368. *Id.* at 483 (citing *Biss v. Tenneco, Inc.*, 409 N.Y.S.2d 874, 876-77 (App. Div. 1978)).

369. *Id.* at 485.

370. No. 92-6068, 1993 WL 26639, at *1 (10th Cir. Feb. 3, 1993).

371. *Id.* at *3.

372. *Id.* at *1.

373. *Id.*

374. *Id.*

375. *Id.*

376. *Id.* at *3.

377. *Id.*

378. 719 P.2d 324, 328-29 (Colo. App. 1985).

379. *Id.* at 325.

380. *See id.* at 326.

381. *Id.* at 325.

he intended to perform.³⁸² Nevertheless, the jury awarded \$2.5 million in damages to the plaintiff.³⁸³

However, the appeals court reversed, holding that the tractor was not defectively designed.³⁸⁴ Applying the consumer expectation test, the court observed that a product was not unreasonably dangerous unless it was more dangerous than an ordinary consumer would expect it to be.³⁸⁵ The court went on to declare:

But a product is not “unreasonably dangerous” and, thus, defectively designed if the consumer deliberately chooses to purchase that which he, as a reasonable consumer, should have expected was not as safe as other products on the market. And, if a claim is predicated on a manufacturer’s failure to install an added safety device, strict liability will not attach simply because a feasible alternative would have rendered the product safer.³⁸⁶

Citing *Biss*, the court concluded that the plaintiff should have known that the tractor he purchased would not be as safe as one equipped with an optional overhead protective device.³⁸⁷ Since the plaintiff was in the best position to evaluate and minimize the danger by purchasing this option, he should bear any loss caused by his failure to do so.³⁸⁸

C. Single-Purpose Versus Multi-Purpose Use Products

Another group of courts purports to allow manufacturers to provide optional safety equipment for multi-purpose products, but not for single-purpose ones. For example, in *Sears, Roebuck & Co. v. Kunze*,³⁸⁹ the purchaser of a ten-inch radial power saw sued the saw’s manufacturer, Emerson, and retail seller, Sears, alleging that the saw was defectively designed because it was not equipped with a lower blade guard.³⁹⁰ There was evidence that a lower blade guard might have been available, but that it would not have been easy to obtain for this particular model.³⁹¹ At trial, the jury concluded that the defendants were negligent and its verdict was affirmed on appeal.³⁹² The defendants argued that because

382. *Id.*

383. *Id.* at 326.

384. *Id.*

385. *Id.*

386. *Id.* at 326-27 (citations omitted).

387. *Id.* at 327.

388. *Id.* (citing *Biss v. Tenneco, Inc.*, 409 N.Y.S.2d 874, 876-77 (App. Div. 1978)).

389. 996 S.W.2d 416 (Tex. App. 1999).

390. *Id.* at 421-22.

391. *Id.* at 421.

392. *Id.*

home users used the saw to make many different kinds of cuts, it was difficult to design a lower blade guard that would protect a user in every circumstance.³⁹³ In contrast, the manufacturer provided lower blade guards as standard equipment for its larger twelve-inch saw because the industrial and commercial users who normally purchased this saw used it almost exclusively for cross-cutting work.³⁹⁴ Notwithstanding the defendants' claim that it was not feasible to provide lower blade guards for ten-inch saws, the appeals court concluded that the jury could reasonably have found that the defendants' failure to do so constituted negligent design.³⁹⁵

More recently, the plaintiff brought a similar claim in *Berczyk v. Emerson Tool Co.*³⁹⁶ As in *Kunze*, the product in question was a ten-inch radial saw manufactured by Emerson and sold by Sears under its Craftsman label.³⁹⁷ The plaintiff contended that the defendants "deliberately disregarded his safety, and the safety of other purchasers of the saw, by failing to equip the saw with a lower blade guard."³⁹⁸ The plaintiff further alleged that even after the Occupational Safety and Health Administration mandated that radial arm saws be equipped with lower blade guards if they were designed for industrial use, the defendants refused to provide lower blade guards as standard equipment on smaller ten-inch saws because they were not ordinarily used in the workplace.³⁹⁹ Furthermore, although Emerson offered a lower blade guard as an option, the owner's manual advised purchasers to only use the guard to make ninety-degree cross cuts and not to use it for rip cuts.⁴⁰⁰

After bringing suit against the defendants, the plaintiff sought to amend his complaint to also seek punitive damages, alleging the defendants had acted deliberately.⁴⁰¹ However, after reviewing the evidence, the court concluded the plaintiff would not be able to prove by clear and convincing evidence that the defendants acted with a deliberate disregard of the rights and safety of others, as required under Minnesota

393. *Id.* at 422.

394. *Id.*

395. *Id.* at 423.

396. 291 F. Supp. 2d 1004, 1007 (D. Minn. 2003).

397. *Id.*

398. *Id.*

399. *Id.*

400. *Id.* According to the court, in making a "rip cut," the user saws the wood along the grain, while making a "cross cut" involves cutting against the grain. *Id.* at 1007 n.2 (internal quotation marks omitted).

401. *Id.* at 1007.

law, and denied the plaintiff's motion to amend.⁴⁰² It should be noted that the court's refusal to allow the plaintiff to add a claim for punitive damages had no effect on his underlying design defect claim.⁴⁰³

D. *The Scarangella Analysis*

Finally, *Campbell v. International Truck & Engine Corp.*⁴⁰⁴ applied the *Scarangella* multifactor analysis to a retail consumer.⁴⁰⁵ The decedent in that case was killed when his tractor turned over and crushed him.⁴⁰⁶ The decedent's personal representative sued the manufacturer, International Truck and Engine Corporation (formerly Navistar), alleging that the tractor was defectively designed because it was sold without a ROPS.⁴⁰⁷ Although the manufacturer provided a ROPS as standard equipment on the tractor, it was possible to purchase a tractor without it.⁴⁰⁸ The decedent purchased a tractor that was not equipped with this protective device.⁴⁰⁹ The trial court granted Navistar's motion for summary judgment.⁴¹⁰

On appeal, the court relied on the *Scarangella* Court's analysis.⁴¹¹ Finding that the defendant failed to prove that the decedent was "actually aware" that the ROPS was available for purchase as optional equipment from the manufacturer, the court concluded that it also failed to establish that the decedent, not the manufacturer, was in a superior position to decide whether to dispense with the ROPS.⁴¹² Furthermore, the court found that the defendant failed to show that the decedent elected not to purchase the ROPS in light of the "specifically contemplated circumstances of [his] use of the product."⁴¹³ Accordingly, the appeals court reversed the trial court's ruling on this issue.⁴¹⁴

402. *Id.* at 1018.

403. *See id.* at 1007. There is no record of how the plaintiff's design defect claim was ultimately resolved.

404. 822 N.Y.S.2d 188 (App. Div. 2006).

405. *Id.* at 189-90 (citations omitted).

406. *Id.* at 189.

407. *Id.*

408. *Id.*

409. *Id.*

410. *Id.*

411. *Id.*

412. *Id.* at 189-90 (quoting *Scarangella v. Thomas Built Buses, Inc.*, 717 N.E.2d 679, 683 (N.Y. 1999)) (internal quotation marks omitted).

413. *Id.* at 190 (quoting *Scarangella*, 717 N.E.2d at 683) (internal quotation marks omitted).

414. *Id.*

VI. A CRITIQUE OF CURRENT APPROACHES

Courts have employed various approaches to determine the liability of product sellers who offer safety equipment on an optional, rather than on a standard, basis. One approach is to determine whether the product is defective when sold without optional safety equipment.⁴¹⁵ Another approach is to allow the manufacturer to offer optional safety equipment without liability when the consumer has superior knowledge about the risks associated with the product's proposed use.⁴¹⁶ A third approach subjects a seller to liability for the sale of a single-purpose product if it fails to offer a cost-effective safety feature as standard equipment; however, when a product has more than one use, a seller may offer safety equipment on an optional basis when it is appropriate for some, but not all, applications.⁴¹⁷ Finally, an approach developed by the New York Court of Appeals in *Scarangella* provides that a seller may offer an optional safety feature without risking tort liability if: (1) the buyer is thoroughly knowledgeable regarding the product and its use, and is actually aware that the safety feature is available; (2) there exist normal circumstances of use in which the product is not unreasonably dangerous without the optional equipment; and (3) the buyer is in a position to evaluate risks and benefits of not having the safety device in the specifically contemplated circumstances of the buyer's use of the product.⁴¹⁸ The discussion below will evaluate how these approaches relate to personal autonomy, consumer protection, and accident cost avoidance.

A. *Defective as Sold*

This approach largely ignores the availability of safer optional equipment and instead imposes liability on the seller if the product is defective or not reasonably safe in the condition in which it is sold. In some of the earlier cases, the courts applied the consumer expectation test which characterized a product as defective if it was more dangerous than the ordinary consumer would expect it to be.⁴¹⁹ Nowadays, most courts apply the risk-utility test, currently favored by the Products

415. See *supra* Parts IV.A, V.A.

416. See *supra* Parts IV.B, V.B.

417. See *supra* Parts IV.C, V.C.

418. See *supra* Parts IV.D, V.D. See also *Scarangella v. Thomas Built Buses, Inc.*, 717 N.E.2d 679, 683 (N.Y. 1999).

419. See, e.g., *Caterpillar Tractor Co. v. Ford*, 406 So. 2d 854, 857 (Ala. 1981); *Miller v. Dvornik*, 501 N.E.2d 160, 163 (Ill. App. Ct. 1986); *Gross ex rel. Gross v. Running*, 403 N.W.2d 243, 246 (Minn. Ct. App. 1987).

Liability Restatement, to determine whether a product's design is defective.⁴²⁰ The Product Liability Restatement's risk-utility analysis requires the plaintiff to suggest a RAD.⁴²¹ While this requirement is intended to protect sellers from liability, it may cause problems for them when sellers offer safety devices as optional equipment. In theory, a plaintiff could point to the optional safety device (that he or she declined to purchase) as a RAD and argue that the seller should have incorporated this safety device as standard equipment. If the optional safety device would have prevented the plaintiff's injury, the plaintiff would contend that the product was defective because a RAD was available to the manufacturer. For this reason, the defective as sold approach is not very appropriate in cases where a manufacturer offers safety equipment on an optional basis.

B. Superior Knowledge

A number of cases have followed the New York court's approach in *Biss*, which concluded that the responsibility to select appropriate optional safety equipment rested on purchasers when they are in a better position to evaluate product-related risks than sellers.⁴²² This approach has much to recommend. Not only is it a bright-line rule, and therefore, easy for courts to apply, but it also vindicates the autonomy principle by enabling consumers to decide for themselves what risks they wish to take.⁴²³

One criticism of the superior knowledge approach, however, is that it seems to assume that the purchaser always has superior knowledge. In fact, while the purchaser may know more than the seller about the environment in which the product will be used, the purchaser would not necessarily know more about the specific risks that he or she will encounter, nor would the purchaser necessarily know more than the seller about the risks and benefits of the product's various safety options. This is particularly true when the transaction involves ordinary consumer products rather than specialized products intended for commercial or industrial use.

420. See RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 2(b) (1998); *supra* Parts IV.A, V.A.

421. RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 2(b).

422. *Biss v. Tenneco, Inc.*, 409 N.Y.S.2d 874, 876-77 (App. Div. 1978). See, e.g., *Scallan v. Duriron Co.*, 11 F.3d 1249, 1254 (5th Cir. 1994); *Davis v. Caterpillar Tractor Co.*, 719 P.2d 324, 327 (Colo. App. 1985); *Rainbow v. Albert Elia Bldg. Co.*, 436 N.Y.S.2d 480, 483 (App. Div. 1981), *aff'd*, 434 N.E.2d 1345 (N.Y. 1982); *Banzhaf v. ADT Sec. Sys. Sw., Inc.*, 28 S.W.3d 180, 187 (Tex. App. 2000).

423. See discussion *supra* Part II.A.

There are other problems with the superior knowledge approach, at least when it is used on a “stand alone” basis. First, while it encourages sellers to share their knowledge with purchasers, it does not necessarily ensure that purchasers will be able to process this information properly. Second, this test does not address the externality problem that exists when the purchaser is not exposed to the risk created when he or she declines to purchase optional safety equipment. That is, even though purchasers have full knowledge of risks and benefits, they may rationally (though immorally) decide to subject their employees to an unreasonable risk of harm in order to save money when they purchase industrial or commercial products.

C. *Single-Purpose Versus Multi-Purpose Products*

Another popular approach is to distinguish between single-purpose and multi-purpose products.⁴²⁴ The rationale for this approach is that the manufacturer of a single-purpose product will know how the product will be used and what risks will arise from the proposed use.⁴²⁵ For this reason, it is appropriate to impose a duty on the manufacturer to design a reasonably safe product and not force purchasers to make cost-benefit comparisons among safety devices.⁴²⁶ In contrast, when a product has more than one function, purchasers will know how they expect to use the product and, therefore, are in a better position than the manufacturer to decide whether a particular safety device is worthwhile or not.⁴²⁷

The rationale for the single-purpose versus multi-purpose approach seems similar to the *Biss* Court’s superior knowledge approach, namely that manufacturers are free to provide safety equipment on an optional basis when purchasers are likely to have superior knowledge about the risks associated with specific uses of a product.⁴²⁸ However, the single-purpose versus multi-purpose approach is narrower and more fact-specific than the superior knowledge approach because it assumes that purchasers have superior knowledge only in certain circumstances, namely when the product is multifunctional.⁴²⁹ Unlike the superior knowledge approach, the single-purpose versus multi-purpose approach does not shield manufacturers from liability when a consumer’s superior

424. See, e.g., *Bilotta v. Kelley Co.*, 346 N.W.2d 616, 624 (Minn. 1984); *Turney v. Ford Motor Co.*, 418 N.E.2d 1079, 1083 (Ill. App. Ct. 1981); *Sears, Roebuck & Co. v. Kunze*, 996 S.W.2d 416, 422 (Tex. App. 1999).

425. See *supra* note 235 and accompanying text.

426. See discussion *supra* Parts IV.B, IV.C, V.B, V.C.

427. See discussion *supra* Parts IV.B, IV.C, V.B, V.C.

428. See *supra* notes 204-07, 234-36 and accompanying text.

429. See discussion *supra* Parts IV.C, V.C.

knowledge is based on something other than the multifunctional nature of the product.⁴³⁰ Nor does this approach permit manufacturers to offer optional safety equipment on single-purpose products even when consumers have superior knowledge about product-related risks.⁴³¹

D. *The Scarangella Approach*

New York courts and those of a few other states follow the *Scarangella* approach.⁴³² This approach attempts to provide a fair balance between freedom of choice for consumers and the public need to prevent overreaching by product sellers.⁴³³ The first requirement, that the buyer be knowledgeable about the product, its intended use, and any safety devices that may be available, implicitly recognizes that consumers can agree to bear additional risk by declining to purchase optional safety equipment. At the same time, this aspect of *Scarangella* helps to ensure that consumers will make informed, and hopefully intelligent, decisions about whether to purchase optional safety devices. The second requirement, that the product be reasonably safe without the optional equipment for some of its intended uses, is more problematic because it seems to limit the consumer's right to decide about optional safety equipment to multifunctional products. The third requirement, that the buyer have the ability to evaluate risks and benefits of not having the safety device for his or her intended use, also seems to be aimed at ensuring that the purchaser makes an informed and rational decision. For this reason, this requirement seems redundant and unnecessary.

VII. A PROPOSED APPROACH

As discussed earlier, there are a number of considerations that are relevant to whether a product seller should be allowed to offer safety devices on an optional basis instead of installing them as standard equipment. First of all, it is desirable to uphold personal autonomy by enabling purchasers to make their own choices about product risk whenever possible.⁴³⁴ Sometimes this autonomy interest has to be subordinated in order to protect consumers from oppression by product sellers, however, this does not seem to be a significant problem as far as

430. See discussion *supra* Parts IV.C, V.C.

431. See discussion *supra* notes 246-66 and accompanying text.

432. See *Scarangella v. Thomas Built Buses, Inc.*, 717 N.E.2d 679, 683 (N.Y. 1999); discussion *supra* Parts IV.D, V.D.

433. See *Scarangella*, 717 N.E.2d at 683.

434. See discussion *supra* Part II.A.

optional safety equipment is concerned.⁴³⁵ Finally, it is desirable to minimize accident costs by ensuring that product-related risks are borne by those who are in the best position to avoid them.⁴³⁶

The following approach, based in part on the holding in *Scarangella*, seems to provide a reasonable balance among these various objectives: a product is not defective in design when (1) the buyer is familiar with the product's general characteristics, including its inherent risks; (2) the buyer is actually aware that the particular safety feature is available; and (3) the buyer is in a position to balance the risks and benefits of purchasing or declining to purchase the particular safety feature.⁴³⁷

The proposed formulation acknowledges the personal autonomy interest by requiring that the buyer be knowledgeable about the product's general characteristics as well as kinds of optional safety equipment that may be available. The purpose of these requirements is to ensure that a purchaser has all of the information necessary to make an informed decision about how much risk to accept. This means that the product seller has an affirmative duty to provide the buyer with information about the characteristics and availability of optional safety equipment.⁴³⁸ In most cases, purchasers of products intended for commercial or industrial use will probably not need this protection because they will already be aware of characteristics of the product, the availability of safety devices, and the risks associated with the product's intended use.⁴³⁹ The knowledge arises from the fact that purchasers already possess considerable expertise about the products used by their businesses. In addition, because these products are usually "big ticket" items, purchasers have an incentive to talk to sales personnel, read catalogs, and otherwise acquaint themselves with a product's performance characteristics, including whether product-related risks can be reduced by the purchase of particular safety devices. In contrast, consumers of ordinary household products seldom have this sort of expertise and so will benefit from the requirement that sellers disclose information about product risks and optional safety equipment.⁴⁴⁰

435. See, e.g., *Trull v. Volkswagen of Am., Inc.*, 320 F.3d 1, 9 (1st Cir. 2002) (holding a car manufacturer negligent for failing to offer a rear shoulder harness as optional, and not standard, equipment).

436. See discussion *supra* Parts IV.B, V.B.

437. See *Scarangella*, 717 N.E.2d at 683.

438. See *Campbell v. Int'l Truck & Engine Corp.*, 822 N.Y.S.2d 188, 190 (App. Div. 2006) (citation omitted).

439. See *supra* note 205 and accompanying text.

440. See *Henningsen v. Bloomfield Motors, Inc.*, 261 A.2d 69, 83 (N.J. 1960).

The requirement that buyers be capable of evaluating risks and benefits is probably not necessary to protect purchasers of commercial or industrial products. Typically, they are repeat purchasers and the products that they buy are often very expensive. Consequently, purchasers of commercial and industrial products are likely to engage in some sort of cost-benefit analysis in connection with such purchases. In many cases, they may consult with engineers and safety experts to ensure that their cost-benefit analysis is accurate. In contrast, ordinary consumers are more prone to cognitive limitations. On the other hand, product sellers who offer safety equipment on an optional basis have an economic incentive to encourage consumers to purchase safer versions of their products because they are more expensive, and presumably more profitable, than stripped down versions. Thus, the interests of consumers and sellers on this issue seem to be congruent.

Finally, it must be conceded that the proposed approach does not directly address the issue of accident cost avoidance, particularly accident costs that occur when consumers underestimate product risks and decline to purchase optional safety equipment that can prevent these accidents from occurring. On the other hand, if consumers believe that a particular safety feature will not reduce risks for them, or will seriously impair product performance for their intended use, then a rule that allows them to make that choice seems to be more efficiency-oriented than one that forces a manufacturer to incorporate an unnecessary safety device into its basic product design or risk tort liability for failing to do so. Viewed from this perspective, allowing product sellers to offer safety equipment on an optional basis seems to promote allocative efficiency better than a rule that discourages this practice.

Another aspect of accident cost avoidance that the proposed approach does not address is the existence of negative externalities in connection with the purchase of products for commercial or industrial use. Not only are the purchasers of commercial and industrial products not subject to the risk of personal injury, but the risk of economic loss to them is limited by workers compensation laws to the relatively modest amounts provided for in statutory schedules.⁴⁴¹ However, tort law may not be the best mechanism for dealing with this sort of externality problem. In particular, a rule that discourages product sellers from offering safety equipment on an optional basis will reduce the choices available to purchasers and impose a needless expense on them by

441. All workers compensation statutes contain ““exclusive remedy”” provisions that substitute statutory claims for common law tort claims against employers for most work-related injuries. See OWEN, *supra* note 25, at 1042 (footnote omitted); Jerry J. Phillips, *Comments on the Reporters’ Study of Enterprise Responsibility for Personal Injury*, 30 SAN DIEGO L. REV. 241, 255 (1993).

forcing them to purchase safety features that are not necessary for the product's intended use. A better, though not ideal, approach would be to rely on government regulation to achieve a satisfactory degree of workplace safety. The federal government regulates workplace safety under the provisions of the Occupational Safety and Health Act ("OSHA").⁴⁴² Although OSHA establishes design standards for industrial machinery and other workplace products, it regulates employers rather than product manufacturers.⁴⁴³ Nevertheless, manufacturers of commercial or industrial products have an incentive to design products that will comply with OSHA standards. Therefore, when OSHA regulations require an employer to equip its machines with a particular safety device, employers will obviously purchase such devices whether the manufacturer provides them as standard or optional equipment. OSHA regulations may not eliminate all negative externalities, but they can provide a floor for product safety that employers, and therefore product sellers, must meet.

Assuming that the approach proposed in this Article is superior to the existing ones, how should it be given effect? The best way to implement this proposal would be for courts to adopt it over time, with modifications if necessary. This process for the development of common law doctrines has worked well in the past. However, judicial acceptance of this proposal could possibly be accelerated if it were incorporated into the Products Liability Restatement. At the present time, a comment to Section 2 of the Products Liability Restatement contains a hypothetical involving bullet-proof vests.⁴⁴⁴ The plaintiff's employer purchases a model that provides only front and back protection because it is cheaper, more comfortable, and allows greater flexibility of movement.⁴⁴⁵ The personal representative of a highway patrol officer, who is shot and killed, alleges that the vest was defective because it did not provide wraparound protection.⁴⁴⁶ The drafters of the Products Liability Restatement conclude that the vest's design is not defective just because it has disadvantages as well as advantages.⁴⁴⁷ This conclusion could be clarified by inserting an additional paragraph that sets forth a rule similar to the proposal in this Article.

442. Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651–678 (2001).

443. See *id.* § 654; *Minichello v. U.S. Indus., Inc.*, 756 F.2d 26, 29 (6th Cir. 1985); *Hughes v. Lumbermens Mut. Cas. Co.*, 2 S.W.3d 218, 223 (Tenn. Ct. App. 1999).

444. RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 2 cmt. f, illus. 10 (1998).

445. *Id.*

446. *Id.*

447. *Id.*

VIII. CONCLUSION

There are a variety of rules that govern the imposition of tort liability when a product seller allows the purchaser to choose what sort of safety equipment to install on a product he or she wishes to purchase. Two of them, the contract specification doctrine and the rule relating to the sale of industrial machinery without any safety equipment, deal with special situations and are arguably *sui generis*. This Article has focused instead on product sales where a seller offers safety equipment on an optional basis rather than installing it as standard equipment. The courts have employed various approaches to determine liability in such cases.⁴⁴⁸ This Article has concluded that none of these approaches is fully responsive to the needs of buyers and sellers and has proposed an alternative. Under this proposed approach, a product will not be considered defective in design if the buyer is familiar with the product's general characteristics and inherent risks, is actually aware the safety feature in question is available, and is in a position to balance the risks and benefits of purchasing or declining to purchase the safety feature.

448. See *supra* Parts IV, V.
