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Comment

Product Design and Post-Manufacture Alteration: The Law of Subsequent Modification in New York State

I. Introduction

Generally, a manufacturer must design its product so that it can withstand both use in the manner for which it is intended and use that, although unintended, is reasonably foreseeable.¹ For example, a manufacturer of screwdrivers must, in some instances, make sure that its product is not only safe for screwing in screws, but also that it is safe for prying open the lid of a can.² A product has a defective design when it presents an unreasonable risk of harm to a person who uses the product as intended or in a manner that is reasonably foreseeable.³ This is so, despite the fact that the manufacturer may have made the product with the utmost care and according to detailed plans and specifications.⁴

1. *Micallef v. Miehle Co.*, 39 N.Y.2d 376, 385-86, 348 N.E.2d 571, 577, 384 N.Y.S.2d 115, 121 (1975).

2. *Robinson v. Reed-Prentice Div.*, 49 N.Y.2d 471, 480, 403 N.E.2d 440, 444, 426 N.Y.S.2d 717, 721 (1980).

3. The distinction between manufacturing defects and design defects should be considered. A manufacturing defect is a construction aberration that usually occurs in a relatively small percentage of products of a given design. The defect occurs as a result of an error in the manufacturing process. Therefore, a product with a manufacturing defect does not conform in some significant aspect to the product's intended design. It also does not conform to the great majority of products manufactured pursuant to that design. *Caprara v. Chrysler Corp.*, 52 N.Y.2d 114, 128, 417 N.E.2d 545, 552, 436 N.Y.S.2d 251, 258 (1981). Conversely, a design defect is a flaw in a product's intended design. Injury results to the user or others because the design itself was improper. *Id.* at 129, 417 N.E.2d at 553, 436 N.Y.S.2d at 258-59.

4. *Robinson*, 49 N.Y.2d at 479, 403 N.E.2d at 443, 426 N.Y.S.2d at 720. *See also*

However, a manufacturer is not an insurer of its products, and is not liable for every accident related to the use of its products. Difficult issues arise, therefore, in products liability litigation when a defendant-manufacturer is sued for injuries arising out of the subsequent modification of its product design by the user or a third party.⁵

In *Robinson v. Reed-Prentice Div.*,⁶ the New York Court of Appeals held that the issue of whether a manufacturer's product design is defective is gauged at the time the product leaves the manufacturer's hands.⁷ The plaintiff, therefore, must show that the product was defective when it left the defendant-manufacturer's possession and control.⁸ Consequently, a manufacturer is not liable for injuries that arise when a party makes subsequent modifications to its product, thereby changing its safely designed product into a defective and unreasonably dangerous one.⁹ In New York, if a product is subsequently modified the defendant-manufacturer will not be held liable even if the modification was reasonably foreseeable.¹⁰

Part II of this Comment sets forth general background information regarding the concept of subsequent modification. Part III analyzes what constitutes "subsequent modification" in New York State.¹¹ As will be shown, not all post-manufacture alterations constitute subsequent modifications that preclude a manufacturer from liability. If a fact-finder determines that a product was not subsequently modified, the product, as changed,

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

5. Michael B. Gallub, *Limiting the Manufacturer's Duty for Subsequent Product Alteration: Three Steps to a Rational Approach*, 16 HOFSTRA L. REV. 361, 363 (1988).

6. 49 N.Y.2d 471, 403 N.E.2d 440, 426 N.Y.S.2d 717 (1980).

7. *Id.* at 479, 403 N.E.2d at 443, 426 N.Y.S.2d at 720.

8. *Nelson v. Garcia*, 129 Misc. 2d 909, 911, 494 N.Y.S.2d 276, 278 (Erie County 1985); see also *Rainbow v. Albert Elia Bldg. Co.*, 79 A.D.2d 287, 293, 436 N.Y.S.2d 480, 484 (4th Dep't 1981), *aff'd*, 56 N.Y.2d 550, 434 N.E.2d 1345, 449 N.Y.S.2d 967 (1982); 1 N.Y. Pattern Jury Instructions — Civil, § 2:141.2 (2d ed. Cum. Supp. 1991); RESTATEMENT (SECOND) OF TORTS § 402A cmt. g (1965); M. STUART MADDEN, *PRODUCTS LIABILITY* § 6.14 (2d ed. 1988).

9. *Robinson*, 49 N.Y.2d at 479, 403 N.E.2d at 443, 426 N.Y.S.2d at 720. *Cf.* RESTATEMENT (SECOND) OF TORTS § 402A (1)(b) (1965).

10. *Robinson*, 49 N.Y.2d at 481, 403 N.E.2d at 444, 426 N.Y.S.2d at 721.

11. It is not within the scope of this Comment to address the issue of a manufacturer's potential liability for defective components that are supplied by another and incorporated into the product.

is considered to be within the design chosen by the manufacturer. Therefore, a case not within *Robinson's* rationale is analyzed in terms of intended and reasonably foreseeable use.¹² Part IV briefly discusses the concepts of intended and reasonably foreseeable use, and the product misuse defense. Part V concludes that the defenses of subsequent modification and product misuse prevent defendant-manufacturers from being held liable for product-related injuries that they do not cause.

II. Background

The Restatement (Second) of Torts § 402A(1)(b) states:

One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if [the product] is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.¹³

Therefore, when the user of an altered product sustains injuries, the issue of a manufacturer's liability raises the question of whether the injuries were proximately caused by a design defect in the product as manufactured and sold, or by a defect created by an alteration made by the user or some other party.

To be successful, the plaintiff must prove that the product was defective or dangerous while in the defendant-manufacturer's possession or otherwise in its control.¹⁴ A defendant-manufacturer will, of course, attempt to establish that the product was altered after leaving its hands.¹⁵ If the defendant-manufacturer establishes that its product was subsequently altered, the burden of proof shifts back to the plaintiff, who will attempt to show that the alteration was not substantial,¹⁶ or that the prod-

12. See Gallub, *supra* note 5, at 401-07, for a discussion on the distinction between product alteration and product misuse.

13. RESTATEMENT (SECOND) OF TORTS § 402A (1)(b) (1965). Significantly, the authors of the Restatement did not take a position regarding the seller's liability when a product was "expected to be processed or otherwise substantially changed" before it reached the user or consumer. *Id.* at caveat 2; see also *id.* at cmt. p.

14. See generally M. STUART MADDEN, PRODUCTS LIABILITY § 6.15 (2d ed. 1988).

15. 3 AMERICAN LAW OF PRODUCTS LIABILITY § 43:14 (3d ed. 1987).

16. See, e.g., *Sage v. Fairchild-Swearingen Corp.*, 70 N.Y.2d 579, 587, 517 N.E.2d 1304, 1308, 523 N.Y.S.2d 418, 422 (1987).

uct was purposefully designed to permit the alteration.¹⁷

In applying Restatement (Second) of Torts § 402A(1)(b), most jurisdictions, including New York, require that the product be substantially or materially altered in order to relieve the defendant-manufacturer of liability.¹⁸ One New York court stated that "any modification or alteration that affects a safety device and is the proximate cause of the injury is a 'material' alteration"¹⁹ Other jurisdictions do not apply the Restatement's "substantial change" language and instead apply the law of causation.²⁰

Courts generally use one of three basic rationales to hold a manufacturer liable for product-related injuries when its product was subsequently altered:

- (1) the original defect, not the alteration, was the proximate cause of the injury, i.e., that the alteration was not substantial or material, or (2) that the alteration was not an intervening, superseding cause of the injury . . . , or (3) that the manufacturer . . . should have anticipated the alteration and warned of its dangers.²¹

17. See, e.g., *Lopez v. Precision Papers, Inc.*, 67 N.Y.2d 871, 873, 492 N.E.2d 1214, 1215, 501 N.Y.S.2d 798, 799 (1986). See *Hiller v. Kawasaki Motors Corp.*, 671 P.2d 369, 372 (Ala. 1983) for a general explanation on the burden-shifting aspect of the subsequent modification defense.

18. See, e.g., *Robinson v. Reed-Prentice Div.*, 49 N.Y.2d 471, 475, 403 N.E.2d 440, 441, 426 N.Y.S.2d 717, 718 (1980); *Marois v. Paper Converting Mach. Co.*, 539 A.2d 621, 624 (Me. 1988) (change in the manufacturer's product is not significant "unless the change relates to the essential features and to the safety of the product") (emphasis omitted); *Martinez v. Clark Equip. Co.*, 382 So. 2d 878, 881 (Fla. 1980) (repairs to the drive wheel and hydraulic system of a forklift were not substantial changes as they did not affect the claimed defective condition of the forklift); *Speyer, Inc. v. Humble Oil & Ref. Co.*, 403 F.2d 766, 771-72 (3d Cir. 1968), *cert. denied*, 394 U.S. 1015 (1969) (gasoline pump was substantially altered when a third party replaced the type of hose ordinarily furnished with the pump with a hose that created unusual pressure dynamics when violently stretched).

19. *Miller v. Anetsberger Bros.*, 124 A.D.2d 1057, 1059, 508 N.Y.S.2d 954, 956 (4th Dep't 1986).

20. See, e.g., *Messler v. Simmons Gun Specialties*, 687 P.2d 121, 125 (Okla. 1984) ("The seller or manufacturer may not be held liable if an alteration is responsible for the defect, and is the intervening and superseding cause as opposed to the concurrent cause of the injuries."); *Dennis v. Ford Motor Co.*, 471 F.2d 733 (3d Cir. 1973). The *Dennis* court held that "Section 402A is inapplicable to changes made by a user after receiving a product" *Id.* at 735. The user of a Ford truck-tractor mounted a fifth wheel upon the tractor for the purpose of attaching a trailer. *Id.* at 734. The court reasoned that a question of proximate cause was presented, and defendant-manufacturer could not rely on section 402A. *Id.* at 735.

21. M. STUART MADDEN, *PRODUCTS LIABILITY* § 6.15 at 244 (2d ed. 1988) (citations

Unlike New York, the majority of jurisdictions hold that subsequent alterations in the injury-causing product do not relieve the manufacturer of liability if the changes made by a user or third party were reasonably foreseeable to the manufacturer.²² For instance, in *Thompson v. Package Machine Co.*,²³ the California Court of Appeal held that a manufacturer could not avoid liability as a matter of law even though its product might have been altered by an intentional disabling of a safety device.²⁴

In *Thompson*, plaintiff received injuries while operating a plastic molding machine.²⁵ The injury-causing accident occurred when plaintiff reached inside the machine to remove a piece of molded plastic.²⁶ Part of plaintiff's arm was amputated when the machine prematurely closed.²⁷ The safety mechanism that should have been in place to prevent the machine from closing was not in position.²⁸

Plaintiff alleged that design defects rendered the machine unreasonably dangerous and proximately caused her injury.²⁹ Defendant-manufacturer argued that if the machine was danger-

omitted).

22. See, e.g., *Toth v. Yoder Co.*, 749 F.2d 1190, 1197 (6th Cir. 1984) (defendant-manufacturer held liable for injuries despite evidence establishing that the accident would not have happened but for the subsequent alteration because it was reasonable for the jury to find that the modification to the machine was foreseeable); *Vanskike v. ACF Indus.*, 665 F.2d 188, 195 (8th Cir. 1981), cert. denied, 455 U.S. 1000 (1982) (defendant-manufacturer held liable for injuries when evidence established that alterations in a trailer hitch were foreseeable due to the defendant-manufacturer's original design); *Helene Curtis Indus. v. Pruitt*, 385 F.2d 841, 856 (5th Cir. 1967), cert. denied, 391 U.S. 913 (1968) (manufacturer of hair coloring not liable for plaintiff's injuries because it was not foreseeable that the purchaser would mix its product with another brand); *Smith v. Hobart Mfg. Co.*, 302 F.2d 570, 574 (3d Cir. 1962) (defendant-manufacturer not liable for injuries when it did not expect nor should have expected plaintiff to remove a safety guard from a meat grinder).

Allowing the issue of foreseeability to enter into the determination of whether a defendant-manufacturer should be liable for injuries associated with its subsequently modified product has been criticized. See, e.g., *Gallub, supra* note 5; David J. McAllister, Note, *Product Modification: The Effect of Foreseeability*, 42 U. PRRT. L. REV. 431 (1981).

23. 99 Cal. Rptr. 281 (1971).

24. *Id.* at 284.

25. *Id.* at 283.

26. *Id.*

27. *Id.*

28. *Id.*

29. *Id.*

ous, it became so only because it had been modified after it had left the factory.³⁰

The court refused to absolve defendant-manufacturer from liability as a matter of law, emphasizing that "a manufacturer may be held liable where the alteration of the machine . . . was reasonably foreseeable."³¹ The court concluded that the issue of foreseeability is a fact to be decided by the jury.³²

Likewise, in *Soler v. Castmaster, Division*,³³ the New Jersey Supreme Court stated that "[w]hen it is foreseeable that a substantial change [in a product] will create a risk of injury, the manufacturer can be liable under strict liability principles for injuries proximately caused by such change."³⁴ Significantly, the New Jersey court predicated this liability on the determination that the manufacturer could have prevented the alteration from taking place.³⁵

In *Soler*, plaintiff's hand was injured by moving parts of a die-casting machine manufactured by defendant.³⁶ Defendant-manufacturer had originally designed the machine so that each of its two cycles required manual starting.³⁷ The machine was not designed or manufactured with a safety gate or any other device to prevent a worker's hand or fingers from touching the machine's moving parts while it was in motion or capable of being set in motion.³⁸

After the machine left defendant-manufacturer's control, plaintiff's employer altered the normal mode for the manual starting cycles by adding a trip wire that automatically started both cycles once the machine was activated.³⁹ The employer also added a safety gate designed to shut off the machine's power when the gate was in the open position.⁴⁰

Plaintiff was injured when he attempted to dislodge a fin-

30. *Id.*

31. *Id.* at 286.

32. *Id.*

33. 484 A.2d 1225 (N.J. 1984).

34. *Id.* at 1232.

35. *Id.*

36. *Id.* at 1227.

37. *Id.*

38. *Id.*

39. *Id.* at 1228.

40. *Id.*

ished product from the mold.⁴¹ Plaintiff testified that although the machine stopped when he opened the safety gate, it started again once he removed the plastic product from the mold.⁴² Consequently, his hand was caught between the two moving parts of the mold.⁴³

Evidence established that defendant-manufacturer's original design rendered the machine dangerous.⁴⁴ Safety devices that were available at the time the die-casting machine was manufactured were not used by defendant-manufacturer.⁴⁵ Although the court acknowledged that the machine had been altered after it left the defendant-manufacturer's control, the court refused to "exonerate or absolve the manufacturer from responsibility for a design defect that foreseeably contributed to the ultimate accident."⁴⁶

In New York, however, the fact that a subsequent modification was foreseeable to the manufacturer does not bear on the issue of the manufacturer's liability for a plaintiff's injuries.⁴⁷ In rejecting the foreseeability standard, New York's highest court stated that to hold otherwise "would expand the scope of a manufacturer's duty beyond all reasonable bounds and would be tantamount to imposing absolute liability on manufacturers for all

41. *Id.*

42. *Id.*

43. *Id.*

44. *Id.*

45. *Id.*

46. *Id.* at 1233.

47. *Robinson v. Reed-Prentice Div.*, 49 N.Y.2d 471, 480, 403 N.E.2d 440, 443, 426 N.Y.S.2d 717, 721 (1980). Cases in other jurisdictions where foreseeability did not create liability for the defendant-manufacturer include: *Hines v. Joy Mfg. Co.*, 850 F.2d 1146, 1151 (6th Cir. 1988) (court declined to apply elements of foreseeability to a state statute which limited a manufacturer's liability for alterations or modifications to its products); *Kubza v. General Motors Corp.*, 580 N.E.2d 47, 49 (Ohio 1989) ("Substantial change is defined as any change which increases the likelihood of a malfunction, which is the proximate cause of the harm complained of, and which is independent of the expected and intended use to which the product is put.") (emphasis omitted); *Gomez v. Clark Equip. Co.*, 743 S.W.2d 429, 432 (Mo. 1987) ("[I]f a modification is foreseeable, but the modification makes a safe product unsafe, the manufacturer is not liable."); *Talley v. City Tank Corp.*, 279 S.E.2d 264, 269 (Ga. 1981) (No issue of defective design is present where "the evidence is uncontroverted that the original design of the manufacturer's product has been totally eliminated and replaced so that the only similarity between the old and the new is the mere basic function to be performed")

product-related injuries.”⁴⁸

III. The Law of Subsequent Modification in New York State

A. *Robinson v. Reed-Prentice Division*

New York’s standard for determining whether a manufacturer is liable for its subsequently altered products was enunciated in *Robinson v. Reed-Prentice Division*.⁴⁹ In *Robinson*, the New York Court of Appeals held that a manufacturer of a product will not be held liable for a plaintiff’s injuries “where, after the product leaves the possession and control of the manufacturer, there is a subsequent modification which substantially alters the product and is the proximate cause of plaintiff’s injuries.”⁵⁰ Furthermore, the court stated that principles of foreseeability are not applicable “where a third party affirmatively abuses a product by consciously bypassing built-in safety features.”⁵¹

Plaintiff Gerald Robinson was employed as a plastic molding machine operator by Plastic Jewel Parts Company (“Plastic Jewel”).⁵² Plastic Jewel bought a plastic molding machine manufactured by defendant Reed-Prentice. By design, Reed-Prentice equipped the machine with a safety gate which made human contact with the movable, dangerous parts of the machine impossible.⁵³ However, the safety gate was an impediment to the manufacture of Plastic Jewel’s bead products in that it precluded manipulation of the beads while they were in the machine.⁵⁴ Since the machine’s design did not comport with its production requirements, Plastic Jewel employees cut a hole through the safety gate.⁵⁵ Although this modification eased production, it simultaneously eliminated the safety device incorporated into the machine’s design.⁵⁶ Consequently, plaintiff’s hand

48. *Robinson*, 49 N.Y.2d at 478, 403 N.E.2d at 444, 426 N.Y.S.2d at 721.

49. 49 N.Y.2d 471, 403 N.E.2d 440, 426 N.Y.S.2d 717 (1980).

50. *Id.* at 475, 403 N.E.2d at 441, 426 N.Y.S.2d at 718.

51. *Id.* at 480, 403 N.E.2d at 443, 426 N.Y.S.2d at 721.

52. *Id.* at 475, 403 N.E.2d at 441, 426 N.Y.S.2d at 718.

53. *Id.* at 476, 403 N.E.2d at 441, 426 N.Y.S.2d at 718.

54. *Id.* at 477, 403 N.E.2d at 442, 426 N.Y.S.2d at 719.

55. *Id.*

56. *Id.*

went through the opening while the machine was operating.⁵⁷ As the machine completed its molding cycle, plaintiff sustained serious injury.⁵⁸

Evidence established that Reed-Prentice knew, or should have known, that the safety gate designed for the machine made it impossible for Plastic Jewel to properly manufacture its product.⁵⁹ Reed-Prentice representatives saw identical machines at Plastic Jewel's plant with holes cut in the safety gates.⁶⁰ Furthermore, Plastic Jewel's plant manager discussed the problem of the safety gate with Reed-Prentice representatives, and asked whether a more suitable safety gate could be designed.⁶¹ A letter sent by Reed-Prentice to Plastic Jewel established that Reed-Prentice "knew precisely what its customer was doing to the safety gate and refused to modify its design."⁶² Further evidence established that Reed-Prentice could have made modifications to the safety gate to accommodate Prentice Jewel without rendering the machine unreasonably dangerous.⁶³

Plaintiff sought to impose liability on Reed-Prentice because Plastic Jewel's act of destroying the functional utility of the safety gate was foreseeable.⁶⁴ Plaintiff asserted that "if a manufacturer knows or has reason to know that its product would be used in an unreasonably dangerous manner, for example by cutting a hole in a legally required safety guard, it may not evade responsibility by simply maintaining that the product was safe at the time of sale."⁶⁵

However, the court disagreed with plaintiff's arguments.⁶⁶ In finding that the machine was not defective when delivered to Plastic Jewel, the court reasoned that foreseeability was not at issue because the safety features were intentionally modified by the purchaser, not the manufacturer.⁶⁷ The court distinguished

57. *Id.*

58. *Id.*

59. *Id.*

60. *Id.*

61. *Id.* at 477-78, 403 N.E.2d at 442, 426 N.Y.S.2d at 719.

62. *Id.* at 478, 403 N.E.2d at 442, 426 N.Y.S.2d at 719.

63. *Id.*

64. *Id.* at 478, 403 N.E.2d at 442, 426 N.Y.S.2d at 720.

65. *Id.*

66. *Id.* at 479-80, 403 N.E.2d at 443-44, 426 N.Y.S.2d at 720-21.

67. *Id.*

the instant case from cases in which the manufacturer knew that its product would be used safely and reasonably for purposes other than those for which it was specifically designed.⁶⁸

To illustrate this point, the Court of Appeals noted that if a screwdriver manufacturer foresaw that its screwdriver might be used to pry open the lid of a can, it would have a corresponding duty to design the shank of the screwdriver with enough strength to accomplish that task.⁶⁹ Because a manufacturer can anticipate the reasonable use to which its product may be put, it is under a duty to prevent injury to those who choose to use its product in such an unintended, yet reasonably foreseeable way.⁷⁰ In such cases, the product is not changed by the consumer, and the manufacturer can foresee the unintended use and the potential for resulting injury if the product cannot withstand such a foreseeable, unintended use.⁷¹

However, the court reasoned, a manufacturer is not obligated to design an abuse-proof product nor one that contains safety features impossible to circumvent.⁷² Nor does a manufacturer have a duty to guarantee that its products will withstand careless or reckless treatment, nor insure that users will not change the product to fit their individual needs.⁷³ Therefore, when a manufacturer furnishes a product that is safe at the time of sale, material alterations that create a defect do not establish liability in the manufacturer, no matter how foreseeable such modification may have been.⁷⁴

To avoid liability for its subsequently altered product, a literal reading of *Robinson* requires that a manufacturer show 1) an affirmative modification or substantial alteration of 2) a safety device of 3) a product that was reasonably safe when it left the manufacturer's hands, and that 4) the modification or alteration was the proximate cause of the accident.⁷⁵ New York

68. *Id.* at 480, 403 N.E.2d at 444, 426 N.Y.S.2d at 721.

69. *Id.*

70. See *infra* Part IV, for a discussion on intended use and foreseeable use.

71. *Robinson*, 49 N.Y.2d at 480, 403 N.E.2d at 444, 426 N.Y.S.2d at 721.

72. *Id.* at 480-81, 403 N.E.2d at 444, 426 N.Y.S.2d at 721.

73. *Id.*

74. *Id.*

75. See Michael Weinberger, *Product Misuse in New York State*, 53 N.Y. St. B.J. 363, 366 (1981).

courts have expanded the *Robinson* rationale to include parts other than safety devices.⁷⁶ However, as will be demonstrated, not all post-manufacture alterations are deemed "subsequent modifications" under *Robinson*.

B. *The Application of Robinson v. Reed-Prentice Division*

1. *Defining Subsequent Modification*

Products may be changed in various ways subsequent to manufacture.⁷⁷ For instance, safety devices may be disengaged, parts substituted or altered, or the product may be installed improperly. However, not every change that occurs in a product's design is considered a subsequent modification within the meaning of *Robinson*.⁷⁸

Six years after *Robinson*, the New York Court of Appeals declined to hold that all disablements of safety devices constitute subsequent modifications. *Lopez v. Precision Papers, Inc.*⁷⁹ affirmed the Appellate Division's holding that a subsequent modification does not occur as a matter of law where safeguards can be easily removed, and where such removal thereby increases the efficacy of the product. The court reasoned that a question of fact exists as to a product's intended design when changes to the product are readily accomplished and the product is thereby made more functional.⁸⁰ Therefore, a manufacturer may be liable under a theory of design defect even though the removal of a safety feature proximately caused the injury.⁸¹ In order to hold a defendant-manufacturer liable for injuries under *Lopez*, a plaintiff must prove that the product "was pur-

76. See *infra* notes 109-34 and accompanying text.

77. See, e.g., MODEL UNIFORM PRODUCTS LIABILITY ACT § 112 (D)(1) (1979). Alteration or modification of a product "occurs when a person or entity other than the product seller changes the design, construction, or formula of the product . . ." *Id.* This Act specifically provides that if the product was altered in accord with the product seller's instructions or with the express or implied consent of the product seller then the product can not be considered subsequently modified. *Id.* § 112 (D)(2)(a) - (b).

78. *McGavin v. Herrick & Cowell Co.*, 118 A.D.2d 982, 982-83, 500 N.Y.S.2d 85, 86 (3d Dep't 1986).

79. 67 N.Y.2d 871, 492 N.E.2d 1214, 501 N.Y.S.2d 798 (1986).

80. 107 A.D.2d 667, 669, 484 N.Y.S.2d 585, 587 (2d Dep't 1985), *aff'd*, 67 N.Y.2d 871, 492 N.E.2d 1214, 501 N.Y.S.2d 798 (1986).

81. *Id.*

posefully manufactured to permit its use without the safety guard."⁸²

Plaintiff Pablo Lopez, a forklift operator at Mutual Paper Company ("Mutual Paper"), was severely injured when a large roll of paper fell from a wooden pallet on a forklift machine he was operating, and struck him on the head. Plaintiff sued the forklift manufacturer, Clark Equipment Company ("Clark Equipment"), alleging certain design defects, the most relevant being an easily removable overhead guard.⁸³ Clark Equipment, relying on *Robinson*, sought to dismiss the complaint because Mutual Paper directed its employees to remove the overhead guard on the forklift.⁸⁴

The appellate division distinguished *Robinson* when it denied defendant-manufacturer's motion to dismiss the complaint. The court stated that in *Robinson* "the modification was so substantial that it permanently destroyed the functional utility of a safety gate."⁸⁵ In *Lopez*, the court contrasted, the safety device was easily removed and the removal made the product more functional.⁸⁶ Therefore, the court reasoned that removing the safety device was not a subsequent modification as a matter of law under *Robinson*.⁸⁷ Consequently, the court held that the jury should decide whether the safety guard was designed to be used with the forklift.⁸⁸

The dissent in the appellate division challenged the majority's interpretation of *Robinson*. Applying *Robinson's* holding to the instant facts, the dissent noted that the removal of the safety guard was the proximate cause of plaintiff's injuries, and that Mutual Paper, not Clark Equipment, purposefully removed the safety guard.⁸⁹ Noting that *Robinson* held that a manufacturer is not required to install backup safety devices in its product even though it is foreseeable that a user may disable the existing safety device, the dissent argued that *Robinson* absolutely

82. *Lopez*, 67 N.Y.2d at 873, 492 N.E.2d at 1215, 501 N.Y.S.2d at 799.

83. *Lopez*, 107 A.D.2d at 667-68, 484 N.Y.S.2d at 586-87.

84. *Id.* at 668, 484 N.Y.S.2d at 587.

85. *Id.*

86. *Id.*

87. *Id.*

88. *Id.*

89. *Id.* at 669-70, 484 N.Y.S.2d at 588 (Rubin, J., dissenting).

barred Lopez's claim against Clark Equipment. Furthermore, the dissent explained, *Robinson* held that a manufacturer is not required to design " 'a product that is impossible to abuse or one whose safety features may not be circumvented.' " ⁹⁰

The dissent in *Lopez* has the better argument. The manufacturer's inability to control its product once it is sold is the *raison d'être* of *Robinson*.⁹¹ By merely highlighting the easy removal of the safety guard and the subsequent greater versatility of the forklift, the *Lopez* court disregarded the fact that the product left the factory with the safety guard attached. The *Lopez* court, therefore, sidestepped *Robinson* by attaching little significance to the state of the product when it left the manufacturer's control.

Where a product is altered by the removal of a safety device, a court should extend its examination of the product's design to include more factors than *Lopez* requires. Since the safety device is usually the crucial element that prevents a product from becoming unreasonably dangerous, a more detailed analysis is logical.

Whether a safety device was designed to be used with a product should be further analyzed by examining how effective the safety device would have been had it been in place and how adequate the warnings and instructions were with regard to the removal of the safety device. These additional factors better indicate whether the disabling of a safety device constitutes a subsequent modification.

First, if a safety device is not effective when it is in place, then the product is unreasonably dangerous at the time of manufacture. Removing the safety device, therefore, is not a subsequent modification because the product was never safely designed.⁹² Conversely, proof that the safety device was effective when in place, and that the product left the manufacturer in such a condition, should influence a fact-finder to reason that the safety device was purposefully designed to be used with the

90. *Id.* at 673, 484 N.Y.S.2d at 590 (Rubin, J., dissenting) (quoting *Robinson*, 49 N.Y.2d at 480-81, 403 N.E.2d at 444, 426 N.Y.S.2d at 721).

91. *Robinson*, 49 N.Y.2d at 479-80, 403 N.E.2d at 443-44, 426 N.Y.S.2d at 720-21.

92. See *McGavin v. Herrick & Cowell*, 118 A.D.2d 982, 983, 500 N.Y.S.2d 85, 87 (3d Dep't 1986).

product.

Second, a manufacturer that adequately warns or instructs users not to remove a safety device should not be held liable for resulting injuries if such admonitions are subsequently disregarded.⁹³ Since a manufacturer's post-sale control of its product is severely limited, proof that the manufacturer properly advised users as to the proper use of a safety device should be given emphasis by a fact-finder in determining how the product was designed.

Nevertheless, when a safety device has been disabled, New York courts use the *Lopez* gloss to determine whether the safety device was part of the product's design. For example, *LaPaglia v. Sears Roebuck & Co.*⁹⁴ involved a lawn mower sold with an easily removable chute deflector and with a detachable grass catcher that had a shorter serviceable life than the lawn mower. The Second Department held that the use of the machine without either attachment did not constitute a subsequent modification as a matter of law.⁹⁵

Relying on *Lopez*, the appellate court found that the lawn mower was designed and manufactured to allow the easy removal of the chute deflector in order to install the grass catcher.⁹⁶ Furthermore, the court found that defendant-manufacturer failed to provide a "cautionary instruction as to the consequences of operating the mower without either the chute deflector or the grass bag"⁹⁷ Therefore, the court denied defendant-manufacturer's motion to vacate a verdict against it because the jury could properly find that the manufacturer

93. See *Van Buskirk v. Migliorelli*, 185 A.D.2d 587, 588-89, 586 N.Y.S.2d 378, 379-80 (3d Dep't 1992); UNIFORM PRODUCT LIABILITY ACT OF 1991, H.R. 2700, 102d Cong., 2d Sess. (1991) § 4 (a)(1) (Version 2, March 10, 1992) (precludes manufacturer's liability for alterations of a product "which the manufacturer specifically prohibited, warned, or instructed against").

An analysis of what constitutes an adequate warning or instruction is not within the scope of this Comment.

94. 143 A.D.2d 173, 531 N.Y.S.2d 623 (2d Dep't 1988).

95. *Id.* at 177, 531 N.Y.S.2d at 627. See also *McAvoy v. Outboard Marine Corp.*, 134 A.D.2d 245, 520 N.Y.S.2d 586 (2d Dep't 1987) (jury could properly find that a lawn mower was designed to be used without a protective plate where the plate was easily removed and the lawn mower made more versatile).

96. *LaPaglia*, 143 A.D.2d at 177, 531 N.Y.S.2d at 627.

97. *Id.*

designed the mower to be used without either attachment.⁹⁸

After *Lopez*, a defendant-manufacturer must prove that its product was purposefully designed to include the use of the existing safety devices. In *Lovelace v. Ametek, Inc.*,⁹⁹ defendant-manufacturer was not liable when plaintiff received injuries from a water extracting machine that his employer had modified by removing three safety devices.¹⁰⁰ In dismissing plaintiff's claim against defendant-manufacturer, the court noted that disabling at least one of the safety devices "was not an easy feat."¹⁰¹ Likewise, in *Darsan v. Guncalito Corp.*,¹⁰² defendant-manufacturer of a meat grinder was not liable for plaintiff's injuries when a third party removed the safety devices that were originally attached to the grinder.¹⁰³ Although the guard was removable, the court noted that it was not easily removable, and, therefore, the court reasoned that the meat grinder was not purposefully manufactured to permit its use without the safety guard.¹⁰⁴

In *Magee v. E.W. Bliss*,¹⁰⁵ the Fourth Department did not consider *Lopez* in granting summary judgment to the defendant-manufacturer of a punch press. The court found that the originally designed activation system that required forty pounds of vertical downward pressure had been replaced by a dual set of pneumatic controls.¹⁰⁶ An important safety feature of the press was thereby destroyed.¹⁰⁷ The court applied *Robinson* to determine that the machine was subsequently modified as a matter of law, and therefore, the manufacturer could not be held liable.¹⁰⁸

98. *Id.* See also *O'Bara v. Piekos*, 161 A.D.2d 1118, 555 N.Y.S.2d 939 (4th Dep't 1990) (a jury should decide whether a chain saw was "purposefully manufactured and assembled to permit its use without a chain brake").

99. 111 A.D.2d 953, 490 N.Y.S.2d 49 (3d Dep't 1985).

100. *Id.* at 954-55, 490 N.Y.S.2d at 51.

101. *Id.* at 954, 490 N.Y.S.2d at 51.

102. 153 A.D.2d 868, 545 N.Y.S.2d 594 (2d Dep't 1989).

103. *Id.* at 870, 545 N.Y.S.2d at 596.

104. *Id.* See also *Van Buskirk v. Migliorelli*, 185 A.D.2d 587, 588-89, 586 N.Y.S.2d 378, 379-80 (3d Dep't 1992) (defendant-manufacturer not liable when evidence established that a safety guard was not intended to be removable, and, in fact, could not be removed without the proper tools).

105. 120 A.D.2d 926, 502 N.Y.S.2d 886 (4th Dep't 1986).

106. *Id.* at 926, 502 N.Y.S.2d at 887.

107. *Id.* at 927, 502 N.Y.S.2d at 888.

108. *Id.* See also *Kingsland v. Industrial Brown Hoist Co.*, 136 A.D.2d 901, 524

A subsequent modification that precludes a defendant-manufacturer from liability is not limited to the disabling of safety devices.¹⁰⁹ For example, a product may be subsequently modified when replacement parts are substituted for original parts. In *Hansen v. Honda Motor Co.*,¹¹⁰ the defendant-manufacturer of a motorcycle was not liable for injuries when plaintiff customized his motorcycle by removing the stock rear wheel and replacing it with a wheel manufactured by another company.¹¹¹ The court considered this replacement a subsequent modification and held that defendant-manufacturer was not liable for the resulting injuries.¹¹² Furthermore, the court reasoned that the manufacturer had no duty to warn "of the dangers attendant upon alteration or modification of the motorcycle."¹¹³

However, not all replacements of original parts constitute subsequent modifications. In *Sage v. Fairchild-Swearingen Corp.*,¹¹⁴ the Court of Appeals held that when the overall design of a product is not substantially altered by a replacement part, the defendant-manufacturer cannot avoid liability under a theory of subsequent modification.¹¹⁵ It is important to note that

N.Y.S.2d 929 (4th Dep't 1988). The *Kingsland* court did not discuss *Lopez* in its determination that a bridge was subsequently modified by the removal of a fail-safe pawl and ratchet mechanism. These apparatuses were designed to prevent the uncontrolled dropping of the apron of the bridge. Apparently the bridge was not made more functional by the removal of these devices.

109. *But see* McGavin v. Herrick & Cowell, 118 A.D.2d 982, 983, 500 N.Y.S.2d 85, 86 (3d Dep't 1986). In denying summary judgment to a defendant-manufacturer the court therein noted that the subsequent modification involved a part of the product "that defendant did not consider . . . to be an integral safety feature of its machine, the removal of which would render the product unsafe."

110. 104 A.D.2d 850, 480 N.Y.S.2d 244 (2d Dep't 1984).

111. *Id.* at 851, 480 N.Y.S.2d at 245-46.

112. *Id.*

113. *Id.*, 480 N.Y.S.2d at 246.

114. 70 N.Y.2d 579, 517 N.E.2d 1304, 523 N.Y.S.2d 418 (1987).

115. *Id.* at 587, 517 N.E.2d at 1308, 523 N.Y.S.2d at 422. *See also* Kneuer v. American Hoist & Derrick Co., 126 A.D.2d 608, 511 N.Y.S.2d 46 (2d Dep't 1987). In *Kneuer*, plaintiff was injured while testing a quarter-turn ball valve manufactured by Elkhart on a fire hydrant manufactured by American Hoist. During this test, the water pressure built up, and caused the hydrant to lift off the ground. The hydrant landed on plaintiff's foot, causing injuries. Although the valve was not manufactured by American Hoist, the court held that substituting the valve did not constitute a subsequent modification as a matter of law, without regard to the defendant-manufacturer's expectation of the user replacing the part.

This principle has been codified in Illinois. *See* ILL. ANN. STAT. ch. 110, para. 13-

although a replacement part was involved in plaintiff's injury, defendant-manufacturer was found liable because the third party's replacement of the manufacturer's original part did not alter the manufacturer's product design.¹¹⁶

Plaintiff Joan Sage, a station agent with Commuter Airlines, unloaded passenger baggage from an airplane's cargo compartment after a Commuter aircraft had just landed. Upon completing her work, plaintiff attempted to deplane by sitting on the sill of the cargo doorway, grasping the door frame, and jumping. As she jumped off, however, the third finger of her left hand caught on a ladder hanger placed on the door frame.¹¹⁷ The hanger, a "v" shaped device, was used to support one end of a portable ladder, and was located near the opening of the cargo compartment. She was suspended in air by her finger, which was wedged in the hanger. The injury was so severe that the finger later had to be amputated.¹¹⁸

At trial, the jury found that the hanger was not made by defendant-manufacturer Fairchild-Swearingen, but was a replacement part made and installed by Commuter Airlines.¹¹⁹ The replacement part was attached to the doorway of the cargo compartment in the same location and in the same manner as the original part.¹²⁰ Furthermore, defendant admitted that it did not expect purchasers to buy a new hanger once it broke because replacement parts could be easily made by the purchaser.¹²¹

The Court of Appeals did not find the fact that a replacement part caused the injury dispositive on the issue of the manufacturer's liability.¹²² The court distinguished *Robinson* and *Hansen*, noting that in those cases "the purchaser changed not only the part but also the design of the part and injury resulted because of the change."¹²³ In *Sage*, the Court of Appeals ex-

213(e) (Smith-Hurd 1983) (replacement of a product part with a substitute that is the same as the original is not considered an alteration).

116. *Sage*, 70 N.Y.2d at 586-87, 517 N.E.2d at 1308, 523 N.Y.S.2d at 422; see also Gallub, *supra* note 5, at 467.

117. *Sage*, 70 N.Y.2d at 583, 517 N.E.2d at 1305, 523 N.Y.S.2d at 419.

118. *Id.* at 582, 517 N.E.2d at 1305, 523 N.Y.S.2d at 419.

119. *Id.* at 585, 517 N.E.2d at 1306-07, 523 N.Y.S.2d at 420-21.

120. *Id.* at 584, 517 N.E.2d at 1306, 523 N.Y.S.2d at 420.

121. *Id.*

122. *Id.* at 587, 517 N.E.2d at 1308, 523 N.Y.S.2d at 422.

123. *Id.* at 586, 517 N.E.2d at 1307-08, 523 N.Y.S.2d at 421-22.

plained, although the hanger was a replacement part, "the hanger design was not altered and it was the manufacturer's defective design — both of the hanger and of the compartment doorway — which caused the injury."¹²⁴

The court reasoned that "in fabricating and installing a new part Commuter's employees . . . did no more than perpetuate defendant's bad design as defendant's representatives foresaw they might."¹²⁵ The court further reasoned that the manufacturer should bear the cost of plaintiff's injury because it designed a defective product and it knew, that upon its breakage, the purchaser was likely to rely on the original design in copying and replacing the product.¹²⁶ Insulating the defendant-manufacturer under these circumstances, the court stated, would allow a manufacturer "to escape liability for designing flimsy parts secure in the knowledge that once the part breaks and is replaced, it will no longer be liable."¹²⁷

The issue of a manufacturer's anticipation of subsequent repair was addressed in *Kehn v. Cooley Volkswagen Corp.*¹²⁸ In *Kehn*, a driver's side car seat was subsequently altered by a prior car accident and subsequent negligent repair.¹²⁹ Plaintiff was injured when his car seat suddenly and unexpectedly tipped backwards, causing him to lose control of his vehicle.¹³⁰ The court held that defendant-manufacturer could not be liable as a matter of law because it had no reason to foresee "any likelihood that its product would have been negligently repaired in the manner which occurred herein."¹³¹

A product may be subsequently modified when its existing parts are altered instead of substituted. For instance, in *Bingham v. Godfrey*,¹³² defendant-manufacturer was not liable for plaintiff's injuries caused by the subsequent electrical rewiring of a vacuum cleaner. A third party attempted to change a three-

124. *Id.* at 586-87, 517 N.E.2d at 1308, 523 N.Y.S.2d at 422.

125. *Id.* at 587, 517 N.E.2d at 1308, 523 N.Y.S.2d at 422.

126. *Id.*

127. *Id.*

128. 94 A.D.2d 876, 463 N.Y.S.2d 570 (3d Dep't 1983).

129. *Id.* at 876-77, 463 N.Y.S.2d at 571.

130. *Id.* at 876, 463 N.Y.S.2d at 571.

131. *Id.* at 877, 463 N.Y.S.2d at 571-72.

132. 114 A.D.2d 987, 495 N.Y.S.2d 428 (2d Dep't 1985).

pronged grounded plug into a two-pronged standard plug, and wrapped the grounding and hot wires together.¹³³ Because plaintiff could not prove that this design defect existed at the time of manufacture, defendant-manufacturer was not liable for the ensuing injuries.¹³⁴

Recently, the New York Court of Appeals held in *Amatulli v. Delhi Construction Corp.*¹³⁵ that a product may be subsequently modified even though the product itself was not physically altered. In *Amatulli*, the court held that installing an above-ground pool in the ground, and surrounding it with a deck, constituted a subsequent modification under *Robinson*.¹³⁶

Plaintiff Vincent Amatulli, Jr. dove headfirst into a four foot deep swimming pool. Although the pool was designed, manufactured and marketed for installation above ground, the owners installed it two feet below ground, and built a deck around it.¹³⁷ Consequently, the pool gave the appearance of a deep in-ground pool.¹³⁸

Plaintiff argued that the pool was defectively designed because it gave the appearance of a greater depth of water than actually existed.¹³⁹ Plaintiff further stated that the pool's manufacturer, Seaspray Sharkline ("Seaspray"), knew or should have known that it was common practice for consumers to install above-ground pools in the ground.¹⁴⁰ Plaintiff contended that installing the pool in-ground was not a material alteration within the meaning of *Robinson*.¹⁴¹

Rejecting plaintiff's arguments, New York's highest court found that when Seaspray manufactured the pool, it was safe for its intended use as an above-ground recreational swimming pool.¹⁴² The court observed that, had the pool been properly installed as an above-ground pool, plaintiff would have readily ob-

133. *Id.* at 988, 495 N.Y.S.2d at 429.

134. *Id.*

135. 77 N.Y.2d 525, 571 N.E.2d 645, 569 N.Y.S.2d 337 (1991).

136. *Id.* at 533, 571 N.E.2d at 649, 569 N.Y.S.2d at 340.

137. *Id.* at 529, 571 N.E.2d at 647, 569 N.Y.S.2d at 339.

138. *Id.*

139. *Id.* at 531, 571 N.E.2d at 647, 569 N.Y.S.2d at 339.

140. *Id.* at 533, 571 N.E.2d at 649, 569 N.Y.S.2d at 341.

141. *Id.* at 531, 571 N.E.2d at 648, 569 N.Y.S.2d at 340.

142. *Id.* at 532, 571 N.E.2d at 648, 569 N.Y.S.2d at 340.

served its shallowness.¹⁴³ Therefore, the Court of Appeals reasoned, installing the pool in-ground, and surrounding it with a deck, "transformed its configuration" and constituted a subsequent modification.¹⁴⁴ Furthermore, it was this modification, which was not attributable to the manufacturer or the pool's design, that caused the dangerous condition.¹⁴⁵ Since the manner in which the pool had been installed constituted a modification under *Robinson*, the fact that Seaspray knew or should have known of the alleged practice of consumers installing above-ground pools in the ground was inapposite.¹⁴⁶

The *Amatulli* court, therefore, equated the in-ground installation of the pool with the disabling of a safety device. To illustrate, visualize a pool sitting above ground. The physical appearance of a plastic tub with walls only four feet high operates as a safety device because it cautions a swimmer not to dive. However, when a consumer installs a pool below the ground and constructs a deck around its periphery, the appearance of a shallow pool is eliminated. Therefore, conceptually, the safety device is removed and nothing discourages a person from diving into the shallow water. Unless *Amatulli* is viewed in this manner, *Robinson* would be inapplicable because no physical alteration was made to the product after it left defendant-manufacturer's factory.¹⁴⁷

143. *Id.* at 533, 571 N.E.2d at 649, 569 N.Y.S.2d at 341.

144. *Id.*

145. *Id.*

146. *Id.*

147. The dissent strongly challenged the majority's decision to apply *Robinson* to a situation that did not involve physical alteration. *Amatulli*, 77 N.Y.2d at 537-39, 571 N.E.2d at 652-53, 569 N.Y.S.2d at 344-45 (Titone, J., dissenting). *Amatulli* did not embrace the rationale used in *Green v. Kautex Machs., Inc.*, 159 A.D.2d 945, 552 N.Y.S.2d 794 (4th Dep't 1990). In *Green*, a plastic blow-molding machine was designed with safety guards on its sides that measured fifty-four inches from ground level. The top of the machine had no guard. In order to enable workers to reach into the top of the machine into the die head and gripper area, the plaintiff's employer placed a platform adjacent to the machine. In denying defendant-manufacturer's motion for summary judgment, the court relied on the fact that the machine itself was not modified or altered. *Id.* at 946, 552 N.Y.S.2d at 795.

2. Determining Proximate Cause

Demonstrating that the product was subsequently modified is only the first hurdle for a defendant-manufacturer in a design defect action. Next, it must demonstrate that the subsequent modification was the proximate cause of the plaintiff's injury, or that the product's design did not cause the injury. Proximate cause serves a different role in strict products liability cases than in ordinary negligence actions.¹⁴⁸ In strict products liability actions alleging design defects, proximate cause means that the defect was the "substantial factor in causing plaintiff's injury."¹⁴⁹ Proximate cause, therefore, does not relate to the causal relationship between the manufacturer's alleged negligence in making the product and the plaintiff's subsequent injury. Instead, it refers to the causal relationship between the alleged product defect and the injury.¹⁵⁰

To avoid liability in subsequent modification cases a defendant manufacturer must prove that the subsequent modification proximately caused the injury. In *Garcia v. Biro Manufacturing Co.*,¹⁵¹ plaintiff's right hand was severed when it was pulled into a meat grinder. A third party had modified the meat grinder by cutting off the bolts which had previously held a safety guard over the feeding mechanism.¹⁵² As modified, the guard could be swiveled out of the way.¹⁵³ Since plaintiff's hand would not have been injured if the safety guard was in place the court found that the subsequent modification was the proximate cause of plaintiff's injury.¹⁵⁴ Therefore, defendant-manufacturer was not held liable for plaintiff's injuries.¹⁵⁵

148. *Voss v. Black & Decker Mfg. Co.*, 59 N.Y.2d 102, 110, 450 N.E.2d 204, 209, 463 N.Y.S.2d 398, 403 (1983); *Nutting v. Ford Motor Co.*, 180 A.D.2d 122, 131, 584 N.Y.S.2d 653, 658 (3d Dep't 1992).

149. *Voss*, 59 N.Y.2d at 109-10, 450 N.E.2d at 209-10, 463 N.Y.S.2d at 403.

150. *Id.* at 110, 450 N.E.2d at 209, 463 N.Y.S.2d at 403.

151. 101 A.D.2d 779, 475 N.Y.S.2d 863 (1st Dep't), *rev'd on other grounds*, 63 N.Y.2d 751, 469 N.E.2d 834, 480 N.Y.S.2d 316 (1984).

152. 101 A.D.2d at 779, 475 N.Y.S.2d at 864.

153. *Id.*

154. *Id.*

155. *Id.* at 780, 475 N.Y.S.2d at 865. See also *Baran v. Curtiss Wright Corp.*, 115 A.D.2d 252, 495 N.Y.S.2d 854 (4th Dep't 1985) (plaintiff removed shell guards from table saw and was injured when her hand came into contact with the blade of the saw).

Likewise, in *Clifford v. Black Clawson Co.*,¹⁵⁶ plaintiff's hand and arm were injured by the moving parts of a duplex rewinder, a machine used in the manufacture of paper. A third party modified the machine when it detached safety guards that would have prevented plaintiff from coming into contact with the moving parts.¹⁵⁷ The defendant-manufacturer was not liable for the resulting injury because, among other reasons, the failure to use the guard proximately caused the injury.¹⁵⁸

Similarly, in *Frey v. Rockford Safety Equip. Co.*,¹⁵⁹ plaintiff was injured as a direct result of her employer's installation of a switch that allowed a punch press to be operated without its safety device.¹⁶⁰ Had it not been for this modification, plaintiff would not have received her injuries.¹⁶¹ Therefore, the court held that defendant-manufacturer was not liable for the resulting injuries.¹⁶²

However, it is not enough that the modified part was involved in the injury. The modification must render an otherwise safe product defective.¹⁶³ Therefore, a defendant-manufacturer cannot avoid liability as a matter of law if there is evidence that plaintiff's injury would have occurred even if the modification had not been made.¹⁶⁴

For instance, in *Tavares v. Hobart Waste Compactor, Inc.*,¹⁶⁵ defendant manufactured a waste compactor equipped with a retractable discharge chute intended to block the user from inserting his hand into the machine.¹⁶⁶ Additionally, an interlock switch prevented the compactor from being activated in the event the chute was raised.¹⁶⁷ Plaintiff was injured when his left forearm and hand were caught inside the compactor's metal

156. 145 A.D.2d 808, 535 N.Y.S.2d 791 (3d Dep't 1988).

157. *Id.* at 809-10, 535 N.Y.S.2d at 792.

158. *Id.* at 810, 535 N.Y.S.2d at 792.

159. 154 A.D.2d 899, 546 N.Y.S.2d 54 (4th Dep't 1989).

160. *Id.* at 899, 546 N.Y.S.2d at 55.

161. *Id.*

162. *Id.*

163. *McGavin v. Herrick & Cowell Co.*, 118 A.D.2d 982, 983, 500 N.Y.S.2d 85, 86 (3d Dep't 1986).

164. *Id.*, 500 N.Y.S.2d at 86-87.

165. 151 A.D.2d 251, 542 N.Y.S.2d 170 (1st Dep't 1989).

166. *Id.* at 252, 542 N.Y.S.2d at 171.

167. *Id.*

paddle.¹⁶⁸ A third party altered the compactor's safety device by removing and bypassing the interlock.¹⁶⁹ Nevertheless, defendant-manufacturer's motion for summary judgment was denied because evidence showed "that it was technically feasible . . . to design and manufacture a compactor that could not be activated even if the safety interlock malfunctioned or in any way became inoperable."¹⁷⁰ Therefore, the court found that the machine might have been defective when sold.¹⁷¹ Because the original design of the product may have been defective, the subsequent modification did not render an otherwise safe product unreasonably dangerous.¹⁷²

Similarly, in *Breidenstein v. Zurn Industries*,¹⁷³ defendant-manufacturer could not avoid liability as a matter of law when plaintiff's hand was caught in the pinch point of a roll machine designed to mill plastic materials through two heated rolls.¹⁷⁴ Although a third party subsequently modified the machine by removing a safety device, the court found that evidence established that the device was an insufficient safeguard, and that more effective safety designs were available when the machine was built.¹⁷⁵ In denying defendant-manufacturer's motion for summary judgment, the court explained that defendant failed to establish that the accident would have been prevented had the safeguard not been removed.¹⁷⁶

A defendant-manufacturer may avoid liability by proving that plaintiff's injury was not caused by the product's design. In *Silverstein v. Walsh Press & Die Co.*,¹⁷⁷ defendant-manufacturer was not liable when a third party radically restructured a punch press after it left the manufacturer's hands. Although the court could not find the precise cause of plaintiff's injuries, it was satisfied that the injuries "were not proximately caused by any design defect, product malfunction, failure or negligence on the

168. *Id.*

169. *Id.*

170. *Id.*

171. *Id.*

172. *Id.*

173. 155 A.D.2d 876, 547 N.Y.S.2d 484 (4th Dep't 1989).

174. *Id.* at 876-77, 547 N.Y.S.2d at 484-85.

175. *Id.* at 877, 547 N.Y.S.2d at 485.

176. *Id.*

177. 119 A.D.2d 658, 501 N.Y.S.2d 97 (2d Dep't 1986).

part of the defendants."¹⁷⁸

IV. Intended Use and Reasonably Foreseeable Use

If a fact-finder determines that a product was not subsequently modified, then the product as it existed at the time of the accident is considered to be manufactured in accordance with the specified design. Unlike subsequent modification, which involves an actual change in the composition and form of the product itself, product misuse involves the usage of the product in its condition as designed and sold.¹⁷⁹ In New York, this distinction is crucial because "it determines whether an injured plaintiff may or may not recover upon proof of foreseeability."¹⁸⁰ Therefore, to avoid liability under the product misuse theory, a defendant-manufacturer must prove that the plaintiff used the product in a manner not intended, and not reasonably foreseeable.

In *Codling v. Paglia*,¹⁸¹ the New York Court of Appeals held that in order for a manufacturer of a defective product to be held liable for damages, the defect must have been a substantial factor causing the injury, and the product must have been used "for the purpose and in the manner normally intended"¹⁸² This rationale has been extended so that a manufacturer may be liable for injuries arising out of its product's intended or reasonably foreseeable use. As stated by the New York Court of Appeals in *Micallef v. Miehle Co.*:¹⁸³

[A] manufacturer is obligated to exercise that degree of care in his plan or design so as to avoid any unreasonable risk of harm to anyone who is likely to be exposed to the danger when the product is used in the manner for which the product was intended, as

178. *Id.* at 659-60, 501 N.Y.S.2d at 98. See also *Coska v. E.W. Bliss*, 168 A.D.2d 664, 563 N.Y.S.2d 492 (2d Dep't 1990) (precise cause of plaintiff's injury while using a punch press not known, but plaintiff failed to prove that it was due to a design defect).

179. *Gallub*, *supra* note 5, at 403 (citations omitted). But see *Amatulli v. Delhi Constr. Corp.*, 77 N.Y.2d 525, 571 N.E.2d 645, 569 N.Y.S.2d 337 (above-ground swimming pool was subsequently modified when it was installed in-ground, despite the fact that the pool itself was not physically altered).

180. *Amatulli v. Delhi Constr. Corp.*, 77 N.Y.2d 525, 536, 571 N.E.2d 645, 651, 569 N.Y.S.2d 337, 343 (Titone, J., dissenting).

181. 32 N.Y.2d 330, 298 N.E.2d 622, 345 N.Y.S.2d 461 (1973).

182. *Id.* at 342, 298 N.E.2d at 628, 345 N.Y.S.2d at 470.

183. 39 N.Y.2d 376, 348 N.E.2d 571, 384 N.Y.S.2d 115 (1975).

well as an unintended yet reasonably foreseeable use.¹⁸⁴

Therefore, the fact that a manufacturer proves that a plaintiff misused its product is only the initial step for its defense. The manufacturer must then prove that the misuse was unforeseeable.

Micallef also implied that with New York's impending adoption of comparative negligence, a plaintiff's misuse may only lessen his recovery and not preclude it.¹⁸⁵ Indeed, after New York's enactment of comparative negligence¹⁸⁶ it was held that once the plaintiff establishes a prima facie case alleging a defective product, misuse will not necessarily bar recovery, but will bear on the issues of intervening cause and apportionment of fault.¹⁸⁷ Therefore, in order for misuse to constitute a complete defense, it is crucial that the product reached the user in a safe condition and that the product was misused in an unforeseeable manner.¹⁸⁸ Alternatively, if the product reached the user in a defective condition, the defendant-manufacturer must show that the unforeseeable misuse of the defective product was the sole cause of the plaintiff's injury.¹⁸⁹

As evidenced by *Micallef* "[a]lthough a manufacturer may expect that ordinarily its products will be used properly, in the manner and for the purpose intended, it must also take into account that sometimes other product uses will be encountered."¹⁹⁰ This expansion has borne especially true for automo-

184. *Id.* at 385-86, 348 N.E.2d at 577, 384 N.Y.S.2d at 121 (citations omitted).

185. *Id.* at 387, 348 N.E.2d at 578, 384 N.Y.S.2d at 122.

186. On September 1, 1975, New York enacted its comparative negligence statute, which states:

In any action to recover damages for personal injury, . . . the culpable conduct attributable to the claimant . . . , including contributory negligence or assumption of risk, shall not bar recovery, but the amount of damages otherwise recoverable shall be diminished in the proportion which the culpable conduct attributable to the claimant . . . bears to the culpable conduct which caused the damages.

N.Y. CIV. PRAC. L. & R. 1411 (1976).

187. *Sheppard v. Charles A. Smith Well Drilling & Water Sys.*, 93 A.D.2d 474, 478, 463 N.Y.S.2d 546, 548-49 (3d Dep't 1983); *see also* *Craft v. Mid Island Dep't Stores*, 112 A.D.2d 969, 971-72, 492 N.Y.S.2d 780, 783 (2d Dep't 1985).

188. *Sheppard*, 93 A.D.2d at 477-78, 463 N.Y.S.2d at 548.

189. *Id.*

190. MICHAEL WEINBERGER, *NEW YORK LAW OF PRODUCTS LIABILITY* § 23:08 (1990) (hereinafter "N.Y. LAW OF PRODS. LIAB.").

bile manufacturers,¹⁹¹ explosives manufacturers,¹⁹² and manufacturers of potentially volatile products.¹⁹³

When the plaintiff's use of the product is in issue, the test of a defendant's liability is "whether the risks reasonably to be foreseen would arise from a misuse reasonably to be foreseen."¹⁹⁴ This test of foreseeability relates only to the general type of risk involving the loss, not the probability of the happening of the exact chain of events leading to the loss.¹⁹⁵

The case of *Tucci v. Bossert*¹⁹⁶ is illustrative. In *Tucci*, a can of Drano, a product designed and sold for the purpose of unclogging drains, was bought by a consumer.¹⁹⁷ Properly used, only one tablespoon of Drano should be followed by one cup of water. After using only a portion of the can the purchaser discarded the can in a trash bag in front of his house. Subsequently, the infant-plaintiff removed the can from the trash bag and poured water into the can, whereupon it exploded.¹⁹⁸

Defendant-manufacturer urged dismissal of the suit because it was not reasonably foreseeable that an infant would go through the garbage, retrieve the can, and pour water into it.¹⁹⁹ The court, however, denied defendant's motion because it was reasonably foreseeable that an explosion would occur if Drano was improperly mixed with water.²⁰⁰ The court explained that the issue was whether it was reasonably foreseeable that when Drano was mixed with water it became dangerous, not whether the actual chain of events leading up to the accident was

191. See, e.g., *Bolm v. Triumph Corp.*, 33 N.Y.2d 151, 305 N.E.2d 769, 350 N.Y.S.2d 644 (1973) (manufacturer of motor vehicle is liable for injuries to its driver when the vehicle is involved in an accident [an unintended use] if the design of the vehicle enhanced the plaintiff's injuries).

192. See, e.g., *Hall v. E.I. du Pont de Nemours & Co.*, 345 F. Supp. 353 (E.D.N.Y. 1972) (manufacturer of blasting caps is liable for injuries to children who played with them even though the caps were intended for use by professional construction workers).

193. See, e.g., *Tucci v. Bossert*, 53 A.D.2d 291, 385 N.Y.S.2d 328 (2d Dep't 1976) (manufacturer of drain-clog remover is liable when an infant filled the discarded can with water and the can exploded).

194. *Id.* at 293, 385 N.Y.S.2d at 330.

195. *Id.*, 385 N.Y.S.2d at 330-31.

196. 53 A.D.2d 291, 385 N.Y.S.2d 328 (2d Dep't 1976).

197. *Id.* at 292, 385 N.Y.S.2d at 330.

198. *Id.*

199. *Id.* at 294, 385 N.Y.S.2d at 331.

200. *Id.*

foreseeable.²⁰¹

Generally, it is within the jury's province to determine whether the plaintiff's conduct constitutes misuse.²⁰² It is also typically within the jury's domain to decide whether the plaintiff's use of the product was reasonably foreseeable by the manufacturer,²⁰³ and whether the plaintiff's misuse of the product was the proximate cause of his injuries.²⁰⁴

V. Conclusion

Products may be altered in many ways subsequent to manufacture. To avoid liability, a defendant-manufacturer must successfully demonstrate that the alteration was not within the product's design, and was therefore subsequently modified. Furthermore, a defendant-manufacturer must prove that the modification proximately caused the plaintiff's injury. However, even if the defendant-manufacturer fails to prove that the product was subsequently modified, it may be able to avoid liability by showing that the plaintiff used the product in a manner that was not intended, and not reasonably foreseeable.

New York products liability law does not place a manufacturer "in the role of an insurer answerable for all injuries which may arise from the use or misuse of its product."²⁰⁵ The well-founded pressure on manufacturers to design safe products should apply equally to purchasers to refrain from altering safe products.²⁰⁶ The concepts of subsequent modification and product misuse enable manufacturers to avoid liability for certain ac-

201. *Id.*

202. *See, e.g.,* *Singer v. Walker*, 39 A.D.2d 90, 93-94, 331 N.Y.S.2d 823, 827 (1st Dep't 1972), *aff'd*, 32 N.Y.2d 786, 298 N.E.2d 681, 345 N.Y.S.2d 542 (1973); N.Y. LAW OF PRODS. LIAB. at § 23:02.

203. *Barry v. Manglass*, 77 A.D.2d 887, 890, 431 N.Y.S.2d 89, 92 (2d Dep't 1980), *aff'd*, 55 N.Y.2d 803, 432 N.E.2d 125, 447 N.Y.S.2d 423 (1981); *Tucci v. Bossert*, 53 A.D.2d 291, 294, 385 N.Y.S.2d 328, 331 (2d Dep't 1976).

204. *Craft v. Mid Island Dep't Stores, Inc.*, 112 A.D.2d 969, 971, 492 N.Y.S.2d 780, 783 (2d Dep't 1985); *Barry v. Manglass*, 77 A.D.2d 887, 890, 431 N.Y.S.2d 89, 92 (2d Dep't 1980), *aff'd*, 55 N.Y.2d 803, 432 N.E.2d 125, 447 N.Y.S.2d 423 (1981); *Tucci v. Bossert*, 53 A.D.2d 291, 294, 385 N.Y.S.2d 328, 331 (2d Dep't 1976).

205. *Lugo v. L.J.N. Toys, Ltd*, 146 A.D.2d 168, 175, 539 N.Y.S.2d 922, 927 (1st Dep't 1989) (*Sullivan, J.*, dissenting), *aff'd on other grounds*, 75 N.Y.2d 850, 552 N.E.2d 162, 552 N.Y.S.2d 914 (1990).

206. David J. McAllister, Note, *Product Modification: The Effect of Foreseeability*, 42 U. PITT. L. REV. 431, 453 (1981).

cidents related to their products.

A major concern with narrowing a manufacturer's liability for its products is that it limits the injured worker's remedy to whatever he receives under Worker's Compensation statutes.²⁰⁷ However, "the absence of a tort remedy against the employer should not of itself give rise to a third-party remedy against a manufacturer . . . who merely furnished the product to the employer."²⁰⁸ Although a goal of products liability is to spread the cost of product injuries to the party that may best afford it,²⁰⁹ a manufacturer should not be liable for injuries that it does not cause.

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207. MODEL UNIFORM PRODUCTS LIABILITY ACT (1979), § 112[D], analysis.

208. 3 AMERICAN LAW OF PRODUCTS LIABILITY § 43:1 (3d ed. 1987) (citing MODEL UNIFORM PRODUCTS LIABILITY ACT (1979), § 112[D], analysis); see also *Robinson* 49 N.Y.2d at 481, 403 N.E.2d at 444, 426 N.Y.S.2d at 722 ("[T]hat an employee may have no remedy in tort against his employer gives the courts no license to thrust upon a third-party manufacturer a duty to insure that its product will not be abused or that its safety features will be callously altered by a purchaser.").

209. *Sage v. Fairchild-Swearingen Corp.*, 70 N.Y.2d 579, 585, 517 N.E.2d 1304, 1307, 523 N.Y.S.2d 418, 421 (1987); cf. *Voss v. Black & Decker Mfg. Co.*, 59 N.Y.2d 102, 109, 450 N.E.2d 204, 209, 463 N.Y.S.2d 398, 403 (1983); *Ebanks v. New York City Transit Auth.*, 118 A.D.2d 363, 372, 504 N.Y.S.2d 640, 645-46 (1st Dep't 1986) (Asch, J., dissenting), *rev'd*, 70 N.Y.2d 621, 512 N.E.2d 297, 518 N.Y.S.2d 776 (1987).

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