

August 1967

Automobile Design and the Judicial Process

Ralph Nader

Joseph A. Page

Follow this and additional works at: <https://scholarship.law.berkeley.edu/californialawreview>

Recommended Citation

Ralph Nader and Joseph A. Page, *Automobile Design and the Judicial Process*, 55 CALIF. L. REV. 645 (1967).

Link to publisher version (DOI)

<https://doi.org/10.15779/Z386R28>

This Article is brought to you for free and open access by the California Law Review at Berkeley Law Scholarship Repository. It has been accepted for inclusion in California Law Review by an authorized administrator of Berkeley Law Scholarship Repository. For more information, please contact jcera@law.berkeley.edu.

California Law Review

VOL. 55

AUGUST 1967

No. 3

Automobile Design and the Judicial Process

*Ralph Nader** and *Joseph A. Page***

IN RECENT YEARS courts have developed doctrines and attitudes which have greatly enlarged the liability of manufacturers, sellers and distributors.¹ Caveat emptor is dead. The new watchword is that the cost of the product should bear the blood of the consumer.² However, this trend has not extended to automobile manufacturers' liability for unsafe design of passenger cars. While a number of suits involving unsafe design have been settled,³ plaintiffs have had little luck on the trial court level.⁴ On appeals, plaintiffs are batting zero. The appellate courts have

* Member of the Connecticut and Massachusetts Bars.

** Assistant Professor, University of Denver College of Law. The authors wish to thank William J. Crowell, Jr., Arthur R. Hauver, Constance L. Hauver and James Rode of the University of Denver College of Law for their research assistance; Robert H. Joost, Esq. of Boston, Mass., for his helpful suggestions; and former Congressman Charles P. Farnsley of Louisville, Ky., for his kind encouragement.

¹ See, e.g., RESTATEMENT (SECOND) OF TORTS § 402(A) (1965); Prosser, *The Assault Upon the Citadel*, 69 YALE L.J. 1099 (1960); Prosser, *The Fall of the Citadel*, 50 MINN. L. REV. 791 (1966); Comment, *Products Liability—The Expansion of Fraud, Negligence, and Strict Tort Liability*, 64 MICH. L. REV. 1350 (1966). See generally L. FRUMER & M. FRIEDMAN, *PRODUCTS LIABILITY* (1965) [hereinafter cited as FRUMER & FRIEDMAN]; R. HURSH, *AMERICAN LAW OF PRODUCTS LIABILITY* (1961).

² This is a paraphrase of the workmen's compensation campaign slogan, "the cost of the product should bear the blood of the workman," attributed to Lloyd George. W. PROSSER, *HANDBOOK OF THE LAW OF TORTS* 554 & n.3 (3d ed. 1964).

³ Forty-seven lawsuits alleging unsafe design of General Motors' Corvair were settled for \$340,000. N.Y. Times, Jan. 12, 1967, at 78, col. 1. A Harvard Law student and his wife obtained a \$24,000 settlement for injuries suffered in a Corvair accident. Letter from Justin P. Morreale, Watertown, Mass., to Ralph Nader, Nov. 12, 1966. An early Corvair case was settled for \$70,000. R. NADER, *UNSAFE AT ANY SPEED* 4-8 (1965). A settlement of \$3,250 was obtained from General Motors in a California case involving a collision between the tail fin of a moving Cadillac and the stomach of the plaintiff, a motorcyclist who rearended the vehicle. *Douglas v. General Motors Corp.*, No. 125 738 (Super. Ct., Orange County, Cal.) in Letter from attorney Stephen I. Zetterberg, counsel for plaintiff, to Ralph Nader, July 6, 1966.

⁴ At least three jury verdicts have been recorded in the defendant's favor in Corvair cases. *Dunn v. General Motors Corp.* (D. Okla.), in N.Y. Times, Nov. 21, 1966, at 32, col. 1 (city ed.); *Collins v. General Motors Corp.* (Super. Ct., Santa Clara County, Cal. 1965), in 14 DEFENSE L.J. 556 (1965); *Anderson v. General Motors Corp.* Law No. 17013 (6th Jud.

yet to reverse a judgment for a manufacturer or affirm a judgment for a plaintiff in a case involving a traffic accident allegedly caused by the unsafe design of an American passenger car.⁵

At the same time, research by engineers, physicians and statisticians has provided strong support for the conclusions that existing vehicle design plays a significant role in accident and injury causation and that feasible, safer alternatives are available to manufacturers.⁶ Focusing on the design and performance of the vehicle seems to be the most effective and economically practicable way of attacking the traffic safety problem.⁷

Cir., Pinellas County, Fla., Aug. 14, 1965), in *Hearings on the Federal Role in Traffic Safety Before the Subcomm. on Executive Reorganization of the Senate Comm. on Government Operations*, 89th Cong., 2d Sess., pt. 4, at 1409 (1966). Two Corvair cases have been dismissed with prejudice: *Priver v. General Motors Corp.* (Super. Ct., Los Angeles County, Cal., Feb. 23, 1966), in *Hearings, supra*, at 1414; *Goldenberg v. General Motors Corp.*, No. 826 338 (Super. Ct., Los Angeles County, Cal., filed Oct. 3, 1963), in *Hearings, supra*, at 1414. A trial judge sitting without a jury rendered a judgment for the defendant in another Corvair case, *Drummond v. General Motors Corp.*, CCH PRODS. LIAB. REP. ¶ 5611 (Super. Ct., Los Angeles County, Cal. 1966). Finally, a jury verdict for the plaintiff in yet another Corvair case was set aside by the trial judge. *Cantos v. General Motors Corp.*, CCH PRODS. LIAB. REP. ¶ 5656 (Super. Ct., Los Angeles County, Cal., Nov. 14, 1966).

In *Schemel v. General Motors Corp.*, 261 F. Supp. 134 (S.D. Ind. 1966), a claim alleging that the defendant was negligent in designing a car capable of exceeding 100 miles per hour was dismissed for failing to state a claim upon which relief could be granted.

In *Willis v. Chrysler Corp.*, 264 F. Supp. 1010 (S.D. Tex. 1967), the court dismissed a claim alleging that the defendant breached an implied warranty of fitness by designing a car so that it broke into two sections on impact.

Two verdicts in plaintiffs' favor still stand. *Dumas v. Chevrolet Div. of General Motors Corp.*, CCH PRODS. LIAB. REP. ¶ 5570 (24th Jud. Dist. Ct., Jefferson Parish, La. 1965); *Mickle v. Blackmon*, 8 A.T.L.A. NEWSLETTER 99 (6th Jud. Cir. Ct., York County, S.C. 1965) (\$780,000). See also *Shepard v. General Motors Corp.*, Nos. 2461, 2462 (D.N.H., Feb. 3, 1967) (default judgment against defendant); *Franklin v. General Motors Corp.*, No. 63-C-22427 (Cir. Ct., Cook County, Ill., July 29, 1965) (default judgment against defendant).

⁵ The cases are discussed at length in Part III *infra*. Most of the reported vehicle design decisions in the plaintiff's favor involve other than passenger cars. See *Carpini v. Pittsburgh & Weirton Bus Co.*, 216 F.2d 404 (3d Cir. 1954) (bus); *Goullon v. Ford Motor Co.*, 44 F.2d 310 (6th Cir. 1930) (tractor); *Hyatt v. Hyster*, 106 F. Supp. 676 (S.D.N.Y. 1952), *rev'd by stipulation of parties*, 205 F.2d 421 (2d Cir. 1953) (fork lift); *Rosin v. International Harvester*, 262 Minn. 445, 115 N.W.2d 50 (1962) (truck); *Clark v. Zurich Truck Lines*, 344 S.W.2d 304 (Mo. Ct. App. 1961) (tractor); *Railway Express Agency v. Spain*, 249 S.W.2d 644 (Tex. Civ. App. 1952) (truck). In two cases courts have imposed liability on the dealer or distributor of a foreign car for failure to warn of unsafe design. *Blitzstein v. Ford Motor Co.*, 288 F.2d 738 (5th Cir. 1961); *McKinney v. Frodsham*, 57 Wash. 2d 126, 356 P.2d 100 (1960). Another decision holds the manufacturer liable for injuries suffered by a mechanic who, while making repairs, cut his hand on a negligently designed splash shield underneath a passenger car. *Elliott v. General Motors Corp.*, 296 F.2d 125 (7th Cir. 1961), *cert. denied*, 369 U.S. 860 (1962).

⁶ See Part II *infra*.

⁷ It is not our intention to minimize other aspects of the crusade for traffic safety. Our argument is that it is easier to change the design of future vehicles than to redesign and rebuild the thousands of miles of poor existing highways or to alter the habits of millions of individual drivers.

Furthermore swift⁸ and unanimous⁹ passage by Congress of the Traffic and Motor Vehicle Safety Act¹⁰ reflected a definite public judgment on the inadequacy of existing design standards.

The apparent failure of the judicial process to deal with the realities of traffic accident causation is underlined by the magnitude of the traffic safety problem and the immensity of the automotive industry. The industry's size should increase its ability to bear and spread losses from unsafe design. In 1965, fourteen automobile and equipment manufacturers had almost 43 billion dollars worth of sales, 6.3 billion dollars in profits before taxes, 3.3 billion dollars in profits after taxes, and 1.9 billion dollars in dividend distributions.¹¹ During the same year, motor vehicle accidents caused 49,000 deaths, 1.8 million economically disabling injuries, and economic loss assessed at 8.9 billion dollars.¹² The economic loss figure includes lost wages, medical expenses, property damage and insurance overhead.¹³ The diversion of police, judicial and administrative services are indirect costs which must also be included in the total economic loss. These costs to society, however, do not affect the economic viability of automobile manufacturing.¹⁴ Highway transport differs from rail, sea and air transport in not being dominated by carriers to whom the cost of and responsibility for injuries may be shifted.

It is possible to think of private sources of pressure which would effectively stimulate automotive safety design. However, self-regulation by the auto industry has so far not materialized.¹⁵ There have long been safety organizations, but their effectiveness and independence from the

⁸ See Drew, *The Politics of Auto Safety*, ATLANTIC MONTHLY, Oct. 1966, at 95.

⁹ 112 CONG. REC. 13,611 (daily ed. June 24, 1966); *id.* at 18,813 (daily ed. Aug. 17, 1966).

¹⁰ 80 Stat. 718 (1966).

¹¹ BUREAU OF THE CENSUS, U.S. DEP'T OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES 496 (87th ed. 1966) (Table No. 696).

¹² NATIONAL SAFETY COUNCIL, ACCIDENT FACTS 40 (1966). From the first death by auto up to the end of 1965, more than 1.5 million people have been killed in automobile accidents in the United States. *Id.* 63. The toll for 1966 includes 52,500 deaths, 1.9 million disabling injuries, and \$9.8 billion in economic loss. Denver Post, Feb. 15, 1967, at 6, col. 6.

¹³ NATIONAL SAFETY COUNCIL, *supra* note 12, at 5.

¹⁴ Record peaks for both motor vehicle sales and motor vehicle deaths were reached in 1965. See AUTOMOBILE MANUFACTURERS ASS'N, AUTOMOBILE FACTS AND FIGURES 3 (1966); NATIONAL SAFETY COUNCIL, *supra* note 12, at 59. Recoveries against the manufacturers for unsafe design do not seem to have assumed proportions which would bring about any significant economic impact. See notes 3-4 *supra*. Damage suits for defective construction have been more successful, but statistics on amounts recovered are unavailable. See generally C. GILLAM, PRODUCTS LIABILITY IN THE AUTOMOBILE INDUSTRY (1960).

¹⁵ See Boyd & Claycamp, *Industrial Self-Regulation and the Public Interest*, 64 MICH. L. REV. 1239, 1245-54 (1966). Senator Maureen Neuberger gave a succinct response to the auto industry's pleas that impending federal regulation be postponed in order to allow the industry to set its own safety standards: "Ha-ba." *Hearings on Traffic Safety Before the Senate Comm. on Commerce*, 89th Cong., 2d Sess., ser. 49, at 436 (1966).

industry is questionable.¹⁶ Private consumer organizations play a very limited role in publicizing safety design or the lack thereof.¹⁷ The differentiation of auto insurance rates based upon vehicle-model accident experience might result in increased private pressure for safer models.¹⁸ On balance, however, private pressures on the industry are not as effective as they might be. Reliance upon private pressures alone seems unrealistic.

The judicial process would seem to be an effective instrument for shifting to the automobile industry the cost of accidents caused by unsafe design.¹⁹ But in the context of highway transport the principal role of the courts has been to adjudicate claims between users of the system.²⁰ The rapidly growing capability for safer vehicles²¹ suggests that the time has come for the law to require the use of such technology for public safety. Yet the judicial process has failed to react alertly to these possibilities for increased safety. *Ex facto ius oritur*,²² though a most viable precept for a technical society capable of rapid technical change, has largely been ignored.

It is the purpose of this Article to examine the past and potential interaction between automobile design and the judicial process. In evaluating the performance of the courts we shall consider both the reasons stated in decisions denying recovery and the factors underlying those decisions. We shall also consider the impact of the new federal statute. It is our contention that, far from preempting the courts from rendering public judgments on design, this legislation provides new roles for courts and new tools for litigants in design liability suits.

¹⁶ See Moynihan, *Epidemic on the Highways*, THE REPORTER, April 30, 1959, at 16; R. NADER, *supra* note 3, at ch. 7.

¹⁷ See, e.g., 31 CONSUMER REP. 160-99 (April 1966). *Quaere* the limiting effect of product libel laws. See W. PROSSER HANDBOOK ON THE LAW OF TORTS § 122. (3d ed. 1964).

¹⁸ See Schanberg, *State May Base Insurance Rates on Auto's Safety*, N.Y. Times, March 5, 1966, at 1, col. 3.

¹⁹ This article will be confined to the damage suit for unsafe design. There are other ways in which unsafe design may play a role in litigation. In *People v. Clink* (Mun. Ct., City of Muskegon Heights, Mich., March 23, 1966), the court found that the testimony of defendant's expert witness that the 1963 Corvair which defendant was driving had a dangerously designed suspension system causing it to go out of control was a far more convincing explanation of the accident in question than the charge that defendant had driven negligently. The prosecution's evidence was held insufficient to bind defendant over for trial.

Antitrust proceedings have been initiated against the automobile manufacturers, who have been charged with conspiring to suppress the development of anti-exhaust devices. See *Wall Street Journal*, June 22, 1966, at 3, col. 2.

The new National Traffic and Motor Vehicle Safety Act imposes a civil penalty for violations of safety regulations which will encompass automobile design. 80 Stat. 718, 723 (1966), 15 U.S.C.A. 1398 (Supp. 1966).

²⁰ See generally O'Connell, *Taming the Automobile*, 58 Nw. U.L. REV. 299 (1963).

²¹ See Part II *infra*.

²² "The law arises out of the fact."

I

THE LEGAL FRAMEWORK

In the last decade, tort law "action" has been in the area of enterprise liability. The grounds on which manufacturers will be found liable have been expanded from negligence²³ to breach of implied warranty²⁴ and strict tort liability.²⁵ Most jurisdictions now implement the policy of recognizing the manufacturer as a superior risk-bearer by placing upon him, rather than upon the injured consumer, the economic burden of harm resulting from defective products.²⁶ The consumer may recover from the manufacturer on the above theories, and on the bases of deceit²⁷ and breach of express warranty.²⁸ These theories will be discussed in their application to design cases.

The negligence action may be based on (1) negligent construction, (2) negligent design, and (3) failure to warn. The design of a product incorporates standards of construction and performance set by the manufacturer. Negligent construction involves deviations from these standards which are generally classified as construction defects.²⁹ In negligent design cases, the plaintiff is asking the court to find that the manufacturer's standard falls below what should be the legal standard in terms of safety.³⁰ The failure-to-warn theory is available when a manufacturer who knows or should know of a defect in his product fails adequately to warn those who might foreseeably suffer because of it.³¹

Strict liability, according to the *Second Restatement of Torts*, is based on harm caused by a "product in a defective condition unreasonably dangerous to the user or consumer."³² The adjective "defective" seems to be superfluous, since it is presumably intended to mean "unreasonably dangerous."³³ Justice Traynor of the Supreme Court of California has

²³ See *MacPherson v. Buick Motor Co.*, 217 N.Y. 382, 111 N.E. 1050 (1916).

²⁴ See *Henningsen v. Bloomfield Motors, Inc.*, 32 N.J. 358, 161 A.2d 69 (1960).

²⁵ See *Greenman v. Yuba Power Prods., Inc.*, 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963).

²⁶ See authorities cited note 1 *supra*.

²⁷ See generally 2 FRUMER & FRIEDMAN § 17; Comment, *Products Liability—The Expansion of Fraud, Negligence, and Strict Tort Liability*, 64 MICH. L. REV. 1350, 1351-55 (1966).

²⁸ See generally 2 FRUMER & FRIEDMAN § 16.04(4).

²⁹ See generally 1 *id.* § 6.

³⁰ See generally *id.* § 7; Noel, *Manufacturer's Negligence of Design or Directions for Use of a Product*, 71 YALE L.J. 816 (1962). See also Katz, *Liability of Automobile Manufacturers for Unsafe Design of Passenger Cars*, 69 HARV. L. REV. 863 (1956).

³¹ See generally 1 FRUMER & FRIEDMAN § 8; Noel, *supra* note 30.

³² RESTATEMENT (SECOND) OF TORTS § 402(A) (1965).

³³ For possible meanings of "defect," see the discussion in P. Keeton, *Products Liability—Liability Without Fault and the Requirement of a Defect*, 41 TEXAS L. REV. 855, 859 (1963). See also Wade, *Strict Tort Liability of Manufacturers*, 19 SW. L.J. 5 (1965).

written that a defective product is "one that fails to meet the average quality of like products."³⁴ Under this definition, the line beyond which a product becomes "defective" is drawn by the industry. Yet it is settled that the standard of due care is not set by industry practices.³⁵ There appears to be no reason why industry standards should determine the actionable quality of goods. Dean Page Keeton, in his first detailed treatment of the concept of "defect," limits his discussion to miscarriages in the manufacturing process and instances in which harm results from ingredients which the manufacturer knew were present in products such as drugs, cosmetics and tobacco.³⁶ In a subsequent article, Dean Keeton recognizes that the design of a product may be unreasonably dangerous and hence justify the imposition of strict tort liability.³⁷ Thus, in design cases the plaintiff must show that the particular injury-causing condition of the product made the product unreasonably dangerous.³⁸

The negligence theory has been extended to permit recovery by anyone who might reasonably be expected to be within the risk created by the product's defect.³⁹ Whether warranty or strict liability theories will be extended to injured bystanders is uncertain.⁴⁰ If the basic reason

³⁴ Traynor, *The Ways and Means of Defective Products and Strict Liability*, 32 TENN. L. REV. 363, 367 (1965).

³⁵ See, e.g., *The T.J. Hooper*, 60 F.2d 737 (2d Cir. 1932); *Shafer v. H.B. Thomas Co.*, 53 N.J. Super. 19, 146 A.2d 483 (1958); W. PROSSER HANDBOOK OF THE LAW OF TORTS 170 (3d ed. 1964).

³⁶ See P. Keeton, *supra* note 33.

³⁷ P. Keeton, *Products Liability—Some Observations about Allocation of Risks*, 64 MICH. L. REV. 1329, 1336-37 (1966).

³⁸ See Comment, *Products Liability—The Expansion of Fraud, Negligence, and Strict Tort Liability*, 64 MICH. L. REV. 1350, 1372 (1966). One conceptual problem in design cases derives from the use of the word "defect." It is generally held that the manufacturer is liable for negligence resulting in a construction or design defect. See C. GILLAM, *supra* note 14. In strict liability or warranty, the manufacturer is liable for a defect in manufacture or design. See Traynor, *supra* note 34. The term clearly applies to equipment malfunctions which cause harm. Therefore, it causes no difficulty in the negligent construction cases. But the normal definition of the term must be strained to include mistakes on the drawing board. Indeed, one commentator argues that the interpretation of the term "defect" has restricted liability in design cases to instances of "palpable inadequacies in the strength or functioning of certain parts . . . The breakage of parts due to insufficiently substantial design seems, to the courts, more like a 'defect.'" C. GILLAM, *supra* note 14, at 107. The range of design hazards, however, goes far beyond mere breakage. See Noel, *supra* note 30; Part II *infra*. It may therefore be more appropriate to refer to "design deficiencies," "design hazards," or merely "unsafe design." This problem may not develop under theories of strict tort liability, since several early cases allowing recovery under this theory involved defective design. See *Greenman v. Yuba Power Prods., Inc.*, 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963); *Wright v. Massey-Harris, Inc.*, 68 Ill. App. 2d 70, 215 N.E.2d 465 (1966); *Schipper v. Levitt & Sons, Inc.*, 44 N.J. 70, 207 A.2d 314 (1965).

³⁹ See W. PROSSER, HANDBOOK OF THE LAW OF TORTS 663 (3d ed. 1964).

⁴⁰ Compare *Mitchell v. Miller*, 26 Conn. Supp. 142, 214 A.2d 694 (Super. Ct., New Haven County 1965); *Connolly v. Hagi*, 24 Conn. Supp. 198, 188 A.2d 884 (Super. Ct., Hartford County 1963), and *Piercefield v. Remington Arms Co.*, 375 Mich. 85, 133 N.W.2d

behind the development of strict liability is loss allocation, then the bystander should be able to recover, since he is in no better position to assume the burden of loss than is the consumer.⁴¹

Defenses available to the manufacturer vary somewhat with the nature of the action. Contributory negligence is, of course, available to the manufacturer as a defense to an action based upon negligence. This defense is generally inapplicable when plaintiff proceeds against the manufacturer under the theory of breach of warranty.⁴² For example, when the plaintiff purchased a car in reliance upon the manufacturer's representations that it had been built for safety and had a seamless roof, he recovered for breach of express warranty when the car overturned and he injured his head on the jagged, steel, nonseamless roof, even though the plaintiff's negligence was the sole cause of the accident.⁴³ It is too early to determine whether contributory fault will be a defense to an action based upon strict tort liability. The New Jersey Supreme Court has allowed the defense,⁴⁴ while the *Restatement* would abolish the defense in a strict tort action.⁴⁵ The commentators seem to favor the *Restatement* approach.⁴⁶

Assumption of the risk is a valid defense under any of the various theories which the plaintiff might use.⁴⁷ The defense may also claim that plaintiff's harm resulted from an abnormal, unintended use of the product.⁴⁸

II

THE FACTUAL CONTEXT

Studies, steadily accumulating since 1950, have directed attention to the strategic role of vehicle design in all phases of the accident-injury

129 (1965) (recovery allowed), *with* Kuschy v. Norris, 25 Conn. Supp. 383, 206 A.2d 275 (Super. Ct., Fairfield County 1964) (recovery denied).

⁴¹ See Note, *Strict Products Liability and the Bystander*, 64 COLUM. L. REV. 916 (1964).

⁴² Compare *Brown v. Chapman*, 304 F.2d 149 (9th Cir. 1962), and *Simmons v. Wichita Coca-Cola Bottling Co.*, 181 Kan. 35, 309 P.2d 633 (1957) (defense inapplicable), *with* *Dallison v. Sears, Roebuck & Co.*, 313 F.2d 343 (10th Cir. 1962), and *Nelson v. Anderson*, 245 Minn. 445, 72 N.W.2d 861 (1955) (defense allowed), and 2 FRUMER & FRIEDMAN § 16.01(3).

⁴³ *Bahlman v. Hudson Motor Car Co.*, 290 Mich. 683, 288 N.W. 309 (1939).

⁴⁴ See *Maiorino v. Weco Prods. Co.*, 45 N.J. 570, 214 A.2d 18 (1965).

⁴⁵ RESTATEMENT (SECOND) OF TORTS § 402(A), comment *n* (1965).

⁴⁶ See 2 FRUMER & FRIEDMAN § 16(A)(5)(f); Comment, *Products Liability—The Expansion of Fraud, Negligence, and Strict Tort Liability*, 64 MICH. L. REV. 1350, 1383-86 (1966).

⁴⁷ See generally R. Keeton, *Assumption of Products Risks*, 19 SW. L.J. 61 (1965); R. Keeton, *Assumption of Risk in Products Liability Cases*, 22 LA. L. REV. 122 (1961); Comment, *Products Liability—The Expansion of Fraud, Negligence, and Strict Tort Liability*, 64 MICH. L. REV. 1350, 1383-85 (1966).

⁴⁸ See Prosser, *The Fall of the Citadel*, 50 MINN. L. REV. 791, 824 (1966).

syndrome.⁴⁹ These phases include the control of the vehicle, the impact of occupants with the passenger compartment, collisions with pedestrians, and vehicle-induced and postaccident hazards resulting from maintenance and ordinary use of the car.⁵⁰ All of these phases include engineering opportunities for reducing accident risk and for guarding against the accident-inducing deficiencies of road, driver and vehicle.⁵¹ Given the data available from such studies, the manufacturer's highest objectives should be based on a fundamental principle of safety engineering: to anticipate every type of accident which may result from machine or human failure and then to minimize both the risk of failure and the injuries which may be sustained when failure occurs.⁵² Implicit in this principle is the goal of designing the machine to adapt to human capacities, limitations and failures.

In recent years, technological innovation has become increasingly less speculative and more subject to the control of conscious policy-making.⁵³ The prevalence of innovation control was recently emphasized by a leading automobile executive:

Invention can be predicted with a fair degree of accuracy and it can be scheduled. In the automotive industry, our technology has advanced to the stage that our engineers can invent practically on demand. Almost any device we can dream up, the engineers can make.⁵⁴

⁴⁹ For a complete bibliography see ARTHUR D. LITTLE, INC., *THE STATE OF THE ART OF TRAFFIC SAFETY* 297-624 (1966). See also Nader, *Automobile Design Hazards*, 16 *AM. JUR. PROOF OF FACTS* 1 (1965).

⁵⁰ For a detailed checklist of vehicle design safety features see *Hearings on the Federal Role in Traffic Safety Before the Subcomm. on Executive Reorganization of the Senate Comm. on Government Operations*, 89th Cong., 2d Sess., pt. 3, at 1194-99 (1966).

⁵¹ The Cornell studies, for example, which were based on specific reporting of injury cause in vehicle crashes in many areas of the United States, began in 1954 to rank specific vehicle features, such as the steering assembly, instrument panel, door locks and windshields, as injury-causing factors in collisions. Campbell, *Twelve Years of Automotive Crash Injury Research*, in *TRAUMA AND THE AUTOMOBILE* 1 (Curran & Chayet eds. 1966).

⁵² See Haeusler, *The Vehicle and Safety*, Paper presented at the Symposium on Traffic Safety—A National Problem, National Academy of Engineering, Washington, D.C., April 28, 1966. For a General Motors engineer's application of the same principles to roadside design see Stonex, *Roadside Design for Safety*, *TRAFFIC SAFETY RESEARCH REV.*, Dec. 1961, at 18.

⁵³ An interesting example of the results which policy shifts can yield is a recent news item relating how industry engineers had documented the first instance of a life saved by a collapsible steering column on a 1967 car. *Denver Post*, Nov. 9, 1966, at 14, col. 2. It is instructive to speculate on the development of vehicle design if these same engineers had been put to work documenting deaths due to noncollapsible steering columns.

⁵⁴ Address by Donald Frey, Vice President, Ford Motor Company, National Industrial Research Conference, Purdue University, January 2, 1966. This optimism is reinforced by the conclusion of a recent study of the feasibility of a safety passenger vehicle: "It is feasible for a combination of features to be chosen for a broad usage safety car that could reduce occupant injuries and fatalities by more than one half with approximately the same degree of complexity and cost found in present day full-size low-price cars."

Thus it is apparent that there is a considerable gap between promise and performance in the field of automotive design. The development of legal theory in products liability suits⁵⁵ seems to give the courts the opportunity to render meaningful public judgments on this gap. The reaction of the courts to this opportunity and challenge is a subject which requires detailed exploration.

III

THE DECISION

A. Duty

Delineation of a legal standard presupposes the existence of a legal duty which creates a relationship between the manufacturer and those members of the general public who may be injured in auto accidents. At common law it is the function of the trial judge to determine whether a duty exists.⁵⁶ The courts have long held that the auto manufacturer is under a duty to use reasonable care to build vehicles which are free of construction defects.⁵⁷ But three decades ago, in *Dillingham v. Chevrolet Motor Company*,⁵⁸ a federal district court refused to recognize that in producing a vehicle brake system an auto manufacturer had any duty beyond building it with due care in accordance with the design conceived by the company's engineers. The court stated:

[W]e find that the specific act of negligence alleged is the improper designing and construction of the brakes. There is no allegation that any portion of the brakes was defective or that material was used in the construction of the brakes which would make their use dangerous. This can only amount to a conclusion of the pleader that he knows more about the construction of an automobile than the manufacturer.⁵⁹

Perhaps it is true that, "Time has clearly passed this case by."⁶⁰ The courts now almost uniformly recognize that a manufacturer of consumer goods is bound by some sort of legal duty with respect to design,⁶¹ and

NEW YORK DEP'T OF MOTOR VEHICLES, FINAL REPORT OF THE FEASIBILITY STUDY OF THE NEW YORK STATE SAFETY CAR PROGRAM XIX-XX (1966).

⁵⁵ See Part I *supra*.

⁵⁶ See generally 2 RESTATEMENT (SECOND) OF TORTS § 328(B) (1965); Green, *The Duty Problem in Negligence Cases*, 28 COLUM. L. REV. 1014 (1928).

⁵⁷ See cases cited note 40 *supra*; C. GILLAM, *supra* note 14, at 110-42.

⁵⁸ 17 F. Supp. 615 (W.D. Okla. 1936).

⁵⁹ *Id.* at 618.

⁶⁰ 1 FRUMER & FRIEDMAN § 7.01(1) n.4.

⁶¹ See Noel, *Recent Trends in Manufacturers' Negligence as to Design, Instructions or Warnings*, 19 SW. L.J. 43 (1965); Noel, *Manufacturers' Negligence of Design or Directions for Use of a Product*, 71 YALE L.J. 816 (1962). For the one dubious exception to this principle, see text accompanying notes 76-79 *infra*.

the auto industry has not been singled out for immunity from this principle. However, a duty with respect to design which is defined in terms so narrow as to eliminate virtually any possibility of finding breach of duty differs little from a judicial determination that no duty exists.

Applying the language of the *Restatement*⁶² to the concept of auto design, one may begin with the proposition that the manufacturer is under a duty to use reasonable care in the design of a vehicle which, if not carefully designed, will create an unreasonable risk of harm during its intended, foreseeable use. Several decisions in cases not involving passenger cars have held manufacturers liable under this principle.⁶³ Yet these opinions do not elaborate on the meaning of "reasonable care."

A limitation on the duty of reasonable care in design is seen in the common statement that the defendant is not required to produce a safer car or to provide the safest design features possible.⁶⁴ Such declarations often buttress a holding that as a matter of law the defendant's duty did not extend to providing the particular design feature which the plaintiff claimed reasonable care demanded. It is ironic that while these courts have absolved the auto manufacturers from a legal duty to improve the design of vehicles, industry representatives themselves publicly acknowledge this responsibility.⁶⁵ In addition, the implication that the improved design which would have prevented the accident constituted the most advanced protection possible or made the vehicle accident proof is totally irrelevant. To determine whether the defendant's conduct was substandard, the court should weigh the possibility and gravity of harm against the economic burden the defendant would have had to assume in order to avoid the risk of harm.⁶⁶ Careful balancing of these factors,

⁶² "A manufacturer is required to exercise reasonable care in manufacturing any article which, if carelessly manufactured, is likely to cause harm to those who use it in the manner for which it is manufactured." RESTATEMENT (SECOND) OF TORTS § 395, comment f (1965).

⁶³ *Carpini v. Pittsburgh & Weirton Bus Co.*, 216 F.2d 404 (3d Cir. 1954); *Hyatt v. Hyster Co.* 106 F. Supp. 676 (S.D. N.Y. 1952), *rev'd by stipulation of parties*, 205 F.2d 421 (2d Cir. 1953); *Rosin v. International Harvester Co.*, 262 Minn. 445, 115 N.W.2d 50 (1962). *See also* *Gouillon v. Ford Motor Co.*, 44 F.2d 310 (6th Cir. 1930).

⁶⁴ *See* *Gossett v. Chrysler Corp.*, 359 F.2d 84, 89 (6th Cir. 1966); *Brown v. General Motors Corp.*, 355 F.2d 814, 819 (4th Cir. 1966); *Shanklin v. Allis-Chalmers Mfg. Co.*, 254 F. Supp. 223, 232 (S.D.W. Va. 1966); *Campo v. Scofield*, 301 N.Y. 468, 470, 95 N.E.2d 802, 804 (1950).

⁶⁵ The president of General Motors has stated: "We recognize that the increasing movement of people and goods by motor vehicles contributes naturally to a higher possibility of accidents. This imposes new responsibilities on all of us. Automobile manufacturers must continue to seek all possible ways in which the built-in protection for car occupants can be improved." *Hearings on the Federal Role in Traffic Safety Before the Subcomm. on Executive Reorganization of the Senate Comm. on Government Operations*, 89th Cong., 1st Sess., pt. 2, at 667 (1965).

⁶⁶ *See* Noel, *Manufacturers' Negligence of Design or Directions for Use of a Product*, 71 YALE L.J. 816, 847 (1962).

rather than judicial fiat, would provide a proper basis for deciding whether a manufacturer exercised reasonable care.

B. *The Second Collision*

A recent decision from the Seventh Circuit aptly illustrates both the judicial tendency to define in narrow terms the auto manufacturer's duty and some of the failings of that tendency. The case merits careful consideration for its treatment of the "second collision," in which the unsafe design feature allegedly causes or worsens an injury rather than precipitates an accident. In *Evans v. General Motors Corporation*⁶⁷ the court upheld the trial judge's dismissal of the plaintiff's complaint alleging that the defendant had been negligent, or had breached an implied warranty, or was strictly liable in tort in designing a Chevrolet station wagon with an "X" frame without side frame protection. The plaintiff's husband had been killed when another vehicle collided with the left side of the station wagon. The court stated:

A manufacturer is not under a duty to make his automobile accident-proof or fool-proof; nor must he render the vehicle "more" safe where the danger to be avoided is obvious to all. . . . Perhaps it would be desirable to require manufacturers to construct automobiles in which it would be safe to collide, but that would be a legislative function, not an aspect of judicial interpretation of existing law.⁶⁸

The decision is vulnerable on a number of grounds.⁶⁹

First, the court stated that a manufacturer is under no duty to protect against obvious design hazards, citing *Campo v. Scofield*.⁷⁰ This proposition has been applied in one previous auto design decision in which the plaintiff unsuccessfully contended that the manufacturer negligently failed to warn that the rear door of the vehicle was hinged toward the back and negligently designed the rear door and rear window handles in such a way that in appearance they were virtually identical.⁷¹ The court found for the defendant on the ground that the danger was

⁶⁷ 359 F.2d 822 (7th Cir.), cert. denied, 385 U.S. 836 (1966).

⁶⁸ *Id.* at 824.

⁶⁹ A criticism relating to the court's declaration that collisions, though foreseeable, are not part of the intended use of an automobile is developed *infra* at Part III(E). The decision has so far received a "bad press." See Notes, 16 DEPAUL L. REV. 261 (1966); 80 HARV. L. REV. 688 (1967); 4 HOUSTON L. REV. 311 (1966); 42 NOTRE DAME LAWYER 111 (1966); 1966 UTAH L. REV. 698. See also Noel, *Manufacturers' Liability for Negligence*, 33 TENN. L. REV. 444, 450-51 (1966); P. Keeton, Book Review, 42 NOTRE DAME LAWYER 594, 597 (1967). But see Note, 52 CORNELL L.Q. 444 (1967). On the other hand, the case has been followed in *Willis v. Chrysler Corp.*, 264 F. Supp. 1010 (S.D. Tex. 1967); *Schemel v. General Motors Corp.*, 261 F. Supp. 134 (S.D. Ind. 1966). Both cases are discussed *supra* note 4.

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

⁷¹ *Thomas v. Jerominek*, 8 Misc. 2d 517, 170 N.Y.S.2d 388 (Sup. Ct. 1957).

apparent. The defenses of contributory negligence and assumption of risk would seem to obviate the need to limit the manufacturer's duty to latent design deficiencies. In fact, in an early design case involving doors hinged at the rear a judgment for the manufacturer was affirmed on the ground that the sole cause of the accident was the plaintiff's negligence.⁷² The controlling issue in these cases should be whether or not the risk was unreasonable, not whether it was latent or patent.⁷³

The most glaring weakness of the opinion in *Evans*, however, is the failure of the majority to grasp the central issue. The real question is not whether the manufacturer's duty is to provide an "accident proof" or "foolproof" car, or to make it "safe to collide." Rather, as the dissent points out, the duty is "to use such care in designing its automobiles that reasonable protection is given purchasers against death and injury from accidents which are expected and foreseeable yet unavoidable by the purchaser despite careful use."⁷⁴ A refusal to accept the dissent's characterization of the duty question would set the development of the common law of auto design back thirty years.⁷⁵

The straw man set up by the defendant and adopted by the *Evans* court—*i.e.*, the question whether an auto manufacturer has a duty to equip cars with pontoons since they may be driven into bodies of water⁷⁶—may be easily resolved by finding as a matter of law that it is unreasonable to require the manufacturer to provide for every conceivable use or misuse of a car. Moreover, it is patently absurd for a court to equate the probability of collisions⁷⁷ with the remote possibility of excursions into bodies of water and to hold that the manufacturer has no duty to provide any protection against either.

It is difficult to imagine why a manufacturer should not be obliged to use due care to protect against the risk of a second collision. Three decisions have faced the problem of the second collision forthrightly, but none involves a passenger car with an allegedly unsafe design feature. In *Zahn v. Ford Motor Company*,⁷⁸ a construction defect case, the plaintiff was a passenger in one of the defendant's vehicles when the driver suddenly slammed on the brakes. The plaintiff was thrown against the dash and lost an eye as a result of striking the jagged edge of the ash tray. The defendant was held liable for this construction defect. During the trial

⁷² *Amason v. Ford Motor Co.*, 80 F.2d 265 (5th Cir. 1935).

⁷³ See 1 FRUMER & FRIEDMAN § 7.02; Noel, *Manufacturers' Negligence of Design or Directions for Use of a Product*, 71 YALE L.J. 816, 837-41 (1962).

⁷⁴ 359 F.2d at 827.

⁷⁵ See *Dillingham v. Chevrolet Motor Co.*, 17 F. Supp. 615 (W.D. Okla. 1936). See text accompanying notes 58-59 *supra*.

⁷⁶ 359 F.2d at 825.

⁷⁷ See note 12 *supra*.

⁷⁸ 265 F.2d 729 (8th Cir. 1959).

the defendant's quality control manager gave a noteworthy description of the manufacturer's duty to construct vehicles which do not present an unreasonable risk of harm due to second collisions:

We are conscious of the types of use of the automobile by the general American public. Whether it is dangerous to have sharp objects in the dash of the car would depend upon what the part was to be used for. I know that . . . children constantly ride in the front seat of these cars. I would imagine there would be occasions when brakes are applied suddenly and children and other persons are thrown forward in cars. . . . *That is why it is important that there be nothing there that would cause injury if such occurrences take place.*⁷⁹

*Railway Express Agency, Incorporated v. Spain*⁸⁰ involved design, but the defendant was not the manufacturer. Suit was brought against an employer which had furnished its employees with trucks built in accordance with the employer's specifications. The cab of the truck in which the decedent-employee was riding at the time of the accident had been designed in such a way that the driver had to open his door in order to give hand signals. A negligently operated car hit the truck in the rear while the door next to the driver was ajar. The driver was thrown to the pavement and the truck overturned crushing him to death in the second collision. In upholding a jury verdict for the plaintiffs, the court held that the design of the truck constituted a breach of the employer's duty to provide employees with a safe place to work. The employer who designs trucks to be used by employees certainly should be under no greater duty to his employees than the manufacturer who designs vehicles for sale to consumers should be to those who might foreseeably be affected by substandard design.

In *Mortensen v. Southern Pacific Company*,⁸¹ the court held that whether or not the defendant railroad's failure to equip its trucks with seat belts was negligence was a jury question. The decedent, an employee of the railroad, was killed when the truck which he was driving was hit from the rear by another vehicle and the driver was thrown out of the cab. A physicist testified that the decedent would not have been killed if he had been restrained in the cab by a seat belt.

Employers may be negligent in not providing seat belts; moreover, the plaintiff's failure to use a seat belt may be characterized as contributory negligence in auto accident cases.⁸² The seat belt and shoulder harness

⁷⁹ 265 F.2d at 732-33 (emphasis by the court).

⁸⁰ 249 S.W.2d 644 (Tex. Civ. App. 1952).

⁸¹ 245 A.C.A. 248, 53 Cal. Rptr. 851 (1966).

⁸² Note, *Automobile Seat Belts: Protection for Defendants as Well as Motorists*, 38 S. CAL. L. REV. 733 (1965); compare *Brown v. Kendrick*, 192 So. 2d 49 (Fla. Dist. Ct. App. 1966), with *Sams v. Sams*, 247 S.C. 467, 148 S.E.2d 154 (1966). See also *Kavanagh v. Butorac*, 221 N.E.2d 824 (Ind. 1966); Note, *Motor Vehicles—A Comparative Analysis of*

are safety devices designed to protect vehicle occupants against the second collision. If the courts are to impose upon employers and occupants the duty to take safety measures against the foreseeable risks of the second collision,⁸³ there is no logical reason why the auto manufacturer should not be under the same obligation.

There is a further analogy between the contributory negligence defense in seat belt cases and design liability for the second collision. The plaintiff's negligence in failing to wear the belt or harness absolves the defendant of liability for those injuries which could have been avoided by the use of the belt.⁸⁴ The jury must apportion the damages, so that the defendant will still be liable for the harm which the plaintiff would have suffered even while wearing the belt or harness.

In second collision cases, when the plaintiff sues the manufacturer for injuries caused by unsafe design, he must first establish that the intervening act which produced the accident does not supersede the manufacturer's negligence. It is generally held that intervening acts which are foreseeable do not operate as superseding causes and that the foreseeability of the intervening act renders defendant's conduct negligent with regard to it.⁸⁵ Traffic accidents from a wide variety of causes are foreseeable to the auto manufacturer, and the absence or inadequacy of design features which might protect vehicle occupants may be a sufficient reason to hold the manufacturer liable for injuries attributable to unsafe design.⁸⁶ Then, damages should be apportioned so that the manufacturer whose negligence caused or aggravated the plaintiff's injuries should be liable only for the harm actually caused by him.⁸⁷ The difficulty in appor-

Seat Belt Legislation, 14 DEPAUL L. REV. 152 (1965). See generally *Seat Belt Accidents*, 16 AM. JUR. PROOF OF FACTS 351 (1965).

⁸³ See Bertz, *Defense Memo: Seat Belt Liability*, 7 FOR THE DEFENSE (Feb. 1966); Bertz, *Defense Memo: Seat Belt Liability II*, 7 FOR THE DEFENSE (June 1966); Seligson, *Defense Memo: Seat Belt Liability III*, 8 FOR THE DEFENSE (March 1967).

⁸⁴ *Vernon v. Droeste*, 7 FOR THE DEFENSE 49 (Tex. Dist. Ct. 1966), noted in 38 S. CAL. L. REV. 733 (1965).

⁸⁵ See, e.g., *Magay v. Claffin-Sumner Coal Co.*, 257 Mass. 244, 153 N.E. 534 (1926); *Rappaport v. Nichols*, 31 N.J. 188, 156 A.2d 1 (1959); 2 F. HARPER & F. JAMES, TORTS 1141-46 (1956); W. PROSSER, HANDBOOK OF THE LAW OF TORTS 311-20 (3d ed. 1964). See also RESTATEMENT (SECOND) OF TORTS § 447 (1965).

⁸⁶ Cf. *Mortensen v. Southern Pac. Co.*, 245 A.C.A. 248, 53 Cal. Rptr. 851 (1966); *Brooks v. Allis-Chalmers Mfg. Co.*, 163 Cal. App. 2d 410, 329 P.2d 575 (1958).

⁸⁷ See Katz, *Liability of Automobile Manufacturers for Unsafe Design of Passenger Cars*, 69 HARV. L. REV. 863, 873 (1956). A jury in a South Carolina auto design case apparently apportioned damages in handing down a \$780,000 verdict in favor of a girl who suffered paralyzing back injuries when she was impaled on the steering wheel gear shift lever of the car in which she was riding as a passenger. *Mickle v. Blackmon*, 8 A.T.L.A. NEWS LETTER 99 (6th Jud. Cir. Ct., York County, S.C. 1965). Although forty per cent of the total award (\$312,000) was assessed against the Ford Motor Co. for negligent design of the vehicle and sixty per cent (\$468,000) against the construction company whose negligence produced the accident, it would seem that the construction company should

tioning damages with exactitude should not, of course, absolve the manufacturer of all liability.⁸⁸

The second collision cases suggest that manufacturers' liability for negligent design involves the same questions of the extent of the duty, the foreseeability of the harm, and the apportionment of damages which courts have faced and resolved in other areas. Design cases raise no unique problems precluding liability by manufacturers.

C. To Whom the Duty is Owed

The *Second Restatement of Torts* would extend liability for negligent manufacture to anyone whom the manufacturer should expect to be endangered by probable use.⁸⁹ Persons who would be foreseeably placed in danger by a failure to use due care in the manufacture of an automobile include pedestrians.⁹⁰ The Seventh Circuit has recognized that the manufacturer's duty extends to a mechanic who repairs the vehicle and has held that an auto company might be liable for designing a splash shield under the car with a sharp edge which cut plaintiff as he inserted his hand to do some repair work.⁹¹ No appellate decisions have as yet considered whether the duty extends to pedestrians injured in collisions with moving vehicles.⁹²

Two lower court cases, however, have held that the manufacturer is under no duty to design a car in such a way as to prevent or minimize injuries to pedestrians who collide with the vehicle while parked. In *Hatch v. Ford Motor Company*⁹³ a young boy ran into a radiator ornament which pierced his eye. *Kahn v. Chrysler Corporation*⁹⁴ denied re-

have been held for the entire amount. Ford and the construction company should have been jointly liable for \$312,000, with the latter alone liable for the remainder. See W. PROSSER, *HANDBOOK OF THE LAW OF TORTS* 254-55 (3d ed. 1964).

⁸⁸ "The requirements of proof usually have been somewhat relaxed in such cases, and it has been said that no very exact evidence will be required, and that general evidence as to the proportion in which the causes contributed to the result will be sufficient to support a verdict." W. PROSSER, *HANDBOOK OF THE LAW OF TORTS* 254-55 (3d ed. 1964) (footnote omitted).

⁸⁹ *RESTATEMENT (SECOND) OF TORTS* § 395 (1965).

⁹⁰ *Id.*, comment *i*. The president of the Ford Motor Company has admitted that Ford stylists are aware of the risk of pedestrian injuries: "We accept the responsibility for trying to design cars that are safer for the pedestrian as well as for the occupants." *Hearings Before the Subcomm. on Executive Reorganization of the Senate Comm. on Government Operations*, 89th Cong., 1st Sess., pt. 2, at 983-84 (1965).

⁹¹ *Elliott v. General Motors Corp.*, 296 F.2d 125 (7th Cir. 1961), *cert. denied*, 369 U.S. 860 (1962).

⁹² A settlement of \$3,250 against General Motors has been obtained in a California case involving a collision between the tail fin of a moving Cadillac and the stomach of plaintiff, a motorcyclist who rearended the automobile. *Douglas v. General Motors Corp.*, No. 125 738 (Super. Ct., Orange County, Cal.), in Letter from attorney Stephen I. Zetterberg, counsel for plaintiff, to Ralph Nader, July 6, 1966.

⁹³ 163 Cal. App. 2d 393, 329 P.2d 605 (1958), *noted in* 10 *HASTINGS L.J.* 343 (1959).

⁹⁴ 221 F. Supp. 677 (S.D. Tex. 1963).

covery to a seven-year-old boy who drove his bicycle into a tail fin. Both actions were dismissed by the trial judge on motions on the pleadings. Neither decision rested upon the plaintiff's contributory negligence, a valid defense in an action for negligent design. Both courts found as a matter of law that the manufacturer could not be held to have foreseen that the design of the vehicle created a risk of harm to the particular plaintiff involved.

In *Kahn*, the court stated that "the manufacturer has no obligation to so design his automobile that it will be safe for a child to ride his bicycle into it while the car is parked."⁹⁵ This is a familiar misconception of the issue.⁹⁶ The duty, once found to exist, is not to make the vehicle foolproof but to use reasonable care to make it reasonably safe and to refrain from creating unreasonable risks of harm. Furthermore, the court's finding as a matter of law that the type of harm which plaintiff suffered could not be foreseen seems questionable. As Professor Noel has observed in criticizing the decision: "It would seem . . . that the parking of a car near bicycle riders is to be expected, and that the foreseeability of harm from needlessly sharp fins should be an issue for the jury."⁹⁷

The opinion in *Hatch* based its conclusion of foreseeability on similarly dubious grounds. The court resorted to a *reductio ad absurdum* by declaring that a finding for the plaintiff would mean that in every case where a pedestrian struck even a functional part of a parked vehicle, the issue of negligent design would become a question of fact. "In effect the triers of fact would be the arbiters of the design of automobiles, and the standard of design would be determined not when the automobile was manufactured but after the occurrence of an accident."⁹⁸ If reasonable men might differ on whether a design feature creates an unreasonable risk of harm, the jury's proper and traditional function is to be the "arbiters of the design of automobiles."⁹⁹ Moreover, legal standards are always set by courts after the occurrence of an accident on the basis of how a reasonable man in defendant's position should have acted at the time the conduct in question occurred.

By blurring the distinction between a nonfunctional hood ornament and functional parts such as headlights, the court fails even to permit itself to rule that as a matter of law no reasonable auto manufacturer

⁹⁵ *Id.* at 679.

⁹⁶ See text accompanying note 74 *supra*.

⁹⁷ Noel, *Recent Trends in Manufacturers' Negligence as to Design, Instructions or Warnings*, 19 Sw. L.J. 43, 53 (1965).

⁹⁸ 163 Cal. App. 2d at 397-98, 329 P.2d at 608.

⁹⁹ The court's distaste at allowing auto design to be questioned is reminiscent of the attitude of the court in *Dillingham v. Chevrolet Motor Co.*, 17 F. Supp. 615, 618 (W.D. Okla. 1936), quoted in text accompanying note 59 *supra*.

might foresee that a sharp protrusion from the hood of a parked vehicle might be struck by a non-negligent child and cause injury. The nonfunctional nature of the protrusion supports a finding that the manufacturer created an unreasonable risk.¹⁰⁰

D. Duty to Warn

The manufacturer's duty to warn extends to product defects, whether negligently or unavoidably caused, and to potential dangers which may result from the ordinary use of the product.¹⁰¹ The use of this theory presupposes the existence of a defect, danger or deficiency. Therefore, those cases in which the courts have reached the duty-to-warn issue are noticeably free of the confusion and uncertainty which characterize decisions dealing with the question of unsafe design.¹⁰²

An adequate warning will satisfy the manufacturer's duty to warn and relieve him of liability for the defect or deficiency unless a foreseeable intervening act, like the negligence of a third person, nullifies the warning.¹⁰³ Moreover, willful and conscious disregard of the manufacturer's warning by a third person will supersede the manufacturer's liability for design.¹⁰⁴

E. Abnormal Use

If a product is used in an abnormal, unintended way, and such use harms the plaintiff, the manufacturer will not be liable under any

¹⁰⁰ An argument might be made that an owner who parks his car so that a nonfunctional part of it protrudes into a public way has created a public nuisance. See Prosser, *Private Action for Public Nuisance*, 52 VA. L. REV. 997 (1966); Smith, *Private Action for Obstruction to Public Right of Passage*, 15 COLUM. L. REV. 1 (1915).

¹⁰¹ 1 FRUMER & FRIEDMAN § 8.01. See also Dillard & Hart, *Products Liability: Directions for Use and the Duty to Warn*, 41 VA. L. REV. 145 (1955); Noel, *Manufacturers' Negligence of Design and Directions for Use of Product*, 71 YALE L.J. 816 (1962).

¹⁰² The duty-to-warn theory has been useful to plaintiffs in design cases involving vehicles manufactured outside the United States by corporations not subject to the jurisdiction of the court. In one case, recovery was allowed against a dealer for failing to discover and warn of a design deficiency in a Volkswagen. Because of the shape of certain component parts of the door latch, the doors of some vehicles of the model in question could be pulled or pushed open without touching the door latch. The court held that the dealer had breached his duty to make a reasonable inspection of the cars he received and to warn purchasers of any defects he might find. *McKinney v. Frodsham*, 57 Wash. 2d 126, 356 P.2d 100 (1960). A second case involved an English Ford with a construction defect (a crack in the gas tank) and an unsafe design feature (a gas tank in the trunk with no holes in the bottom of the trunk through which accumulated gasoline and gasoline vapors might escape). The court found that the distributor, the American Ford Co., could not have discovered the crack with a reasonable inspection but was negligent in not warning of the unsafe design, "of which danger it should have been aware from its long experience in the design and manufacture of automobiles." *Blitzstein v. Ford Motor Co.*, 288 F.2d 738, 744 (5th Cir. 1961).

¹⁰³ See *Comstock v. General Motors Corp.*, 358 Mich. 163, 99 N.W.2d 627 (1959).

¹⁰⁴ *Ford Motor Co. v. Wagoner*, 183 Tenn. 392, 192 S.W.2d 840 (1946).

theory.¹⁰⁵ However, the manufacturer may still be liable for harm resulting from unintended uses which are not so abnormal that they are not foreseeable.¹⁰⁶ The negligent use of a product may be abnormal and unintended, but if it is foreseeable, the manufacturer should still be liable.¹⁰⁷

Two recent auto design cases have placed a questionable gloss upon these propositions. In *Muncy v. General Motors Corporation*¹⁰⁸ the driver of a car manufactured by the defendant violated the law by allowing the car to stand unattended without stopping the engine or setting the brakes. The court held that the driver was not using the car in the manner and for the purpose for which it had been intended and that the defendant neither designed the vehicle for unlawful use nor should have foreseen such use. Therefore, the defendant was not liable for allegedly unsafe design in constructing an ignition system in which the key could be removed without turning off the motor and taking the auto out of gear. However, it is well settled that intervening negligent or criminal acts of third persons, if foreseeable, do not supersede the defendant's negligence.¹⁰⁹ It seems strained to hold as a matter of law that the manufacturer could not foresee that the driver might unintentionally violate the motor vehicle laws.

In *Evans v. General Motors Corporation*¹¹⁰ the court held that the manufacturer had no duty to design for protection against second collisions. "The intended purpose of an automobile does not include its participation in collisions with other objects, despite the manufacturer's ability to foresee the possibility that such collisions may occur."¹¹¹ Yet "intended use and purpose" as a test to limit the manufacturer's liability applies only to the conscious utilization of the product by its operator. This distinction between such use and unplanned incidents is not difficult to conceptualize. The person who uses his car to knock over shrubbery in his back yard or to ford streams¹¹² has gone beyond the purposes for which the vehicle was manufactured. But the driver who non-negligently loses control of his car while on the road and crashes into a tree has clearly not transcended the use and purposes for which the car was produced.

¹⁰⁵ See Prosser, *The Fall of the Citadel*, 50 MINN. L. REV. 791, 824 (1966).

¹⁰⁶ RESTATEMENT (SECOND) OF TORTS § 395, comment *j* (1965).

¹⁰⁷ See Comment, *Products Liability—The Expansion of Fraud, Negligence, and Strict Tort Liability*, 64 MICH. L. REV. 1350, 1385 (1966).

¹⁰⁸ 357 S.W.2d 430 (Tex. Civ. App. 1962). See also *General Motors Corp. v. Muncy*, 367 F.2d 493 (5th Cir. 1966), cert. denied, 87 S. Ct. 1476 (1967).

¹⁰⁹ W. PROSSER, HANDBOOK OF THE LAW OF TORTS 311-15 (3d ed. 1964). See also *Mortensen v. Southern Pac. Co.*, 245 A.C.A. 248, 53 Cal. Rptr. 851 (1966).

¹¹⁰ 359 F.2d 822 (7th Cir.), cert. denied, 385 U.S. 873 (1966), discussed in text accompanying notes 67-77 *supra*.

¹¹¹ *Id.* at 825. See also *Willis v. Chrysler Corp.*, 264 F. Supp. 1010 (S.D. Tex. 1967).

¹¹² The *Evans* court uses this example. 359 F.2d at 825.

The abnormal use test should not be used to preclude manufacturers' liability in the latter case.

F. Some Unexpressed Reasons for the Decisions

The apparent reluctance of the courts to impose liability for unsafe design has been explained as follows by an eminent authority:

This hesitation results partly from a reluctance to let a jury pass on a product prepared by experts in the field, and partly from a realization that a judgment for a particular plaintiff may open the door to many additional claims and suits. Occasionally there has been apprehension that a judgment for the plaintiff will necessitate extensive remodeling, or perhaps even removal from the market of some much-used and widely advertised product, with serious consequences to both the manufacturer and his employees.¹¹³

Such reasons, if they underlie the tendency of courts to find for the defendants in automobile design cases, are patently unsound. First of all, there is nothing novel in requiring a judge or jury to pass judgment upon the standard of care exercised by an expert in making a decision. The conduct of experts in fields other than product design is routinely subject to judicial scrutiny.¹¹⁴ Perhaps the courts are willing to affix responsibility to individual experts, but have difficulty when the expert decision is hallowed by a brand name and a corporate shield. The mere technical nature of an issue does not justify its exemption from the public judgment expressed by the judicial process. In areas such as medical malpractice, juries often must resolve questions of a complicated nature. In fact, the issues arising in auto design cases are often well within the grasp of laymen.

The "flood of litigation" argument is well countered by Prosser's submission that "It is the business of the law to remedy wrongs that deserve it, even at the expense of a 'flood of litigation,' and it is a pitiful confession of incompetence on the part of any court of justice to deny relief on such grounds."¹¹⁵ In the auto design cases, the "flood of litigation" argument presupposes that a defendant's conduct has been found to be substandard in at least one suit. Even if that defendant's conduct was substandard, however, each new plaintiff must prove that the conduct caused the harm; the defendant has in each case the defenses of contributory fault, assumption of the risk and abnormal use. These burdens act as barriers to liability which must be surmounted in each individual suit. Finally, if the threat of multiple litigation when a design feature

¹¹³ Noel, *Manufacturers' Negligence of Design or Directions for Use of a Product*, 71 YALE L.J. 816 (1962).

¹¹⁴ See, e.g., *A Symposium in Professional Negligence*, 12 VAND. L. REV. 535 (1959).

¹¹⁵ W. PROSSER, HANDBOOK OF THE LAW OF TORTS 43 (3d ed. 1964).

has been mass-produced in effect insulates the feature from a judicial determination that it is unsafe, it would logically follow that the design of an article produced in limited numbers but embodying the same risk of harm could be pronounced unsafe by a court.

The contention that the economic burden imposed upon a manufacturer by a finding that his product is unsafe might be so great as to require immunity from liability is related to the "flood of litigation" argument. Again, the implication is that the greater the risk created, the more desirable the immunity; or, if you're going to be negligent, do it on a grand scale. The automobile industry has disclosed that from 1959 to 1966 some 8,700,225 cars were recalled because of defects.¹¹⁶ The call backs included 1.5 million Chevrolets containing throttles designed so that they would stick under certain weather conditions.¹¹⁷ The economic burden which this practice entailed did not deter the manufacturers from assuming responsibility for the defects and design deficiencies.¹¹⁸ It should not deter the courts from making a similar public judgment when equally grave risks have been created and actual harm has resulted.

IV

SOME PRACTICAL PROBLEMS

One practical limitation of the damage suit as a means of securing a public judgment on automobile design is the private nature of the remedy. Only the individual who has been injured may initiate the suit. Even if the harm suffered was caused by an arguably unsafe design feature, there is no certainty that the injured party will seek money damages from the manufacturer.¹¹⁹ There are several possible reasons for this. The individual or his family may not need monetary compensation. They may not wish to relive in the courtroom the traumatic experience of the accident. More significantly, they may not suspect that they might have a cause of action.

Failure to consider the possibility of a design suit may result in the loss of evidence when the damaged automobile is repaired or "junked" after the accident; the injured party then loses forever the evidence which is the sine qua non of an automobile products liability suit.¹²⁰ Attorneys

¹¹⁶ N.Y. Times, May 7, 1966, at 1, col. 12; *id.*, May 9, 1966, at 43-45. See also *Hearings on the Federal Role in Traffic Safety Before the Subcomm. on Executive Reorganization of the Senate Comm. on Government Operations* 89th Cong., 2d Sess., app. (1966).

¹¹⁷ *Id.*, April 5, 1966, at 1, col. 2.

¹¹⁸ On the manufacturer's legal duty to warn see 1 FRUMER & FRIEDMAN § 8.

¹¹⁹ See, e.g., Nader, *Unsafe Auto Design Liability: The Quest for Evidence*, in 1965 PERSONAL INJURY ANNUAL 640, 644-45 (Frumer & Friedman eds.).

¹²⁰ On the difficulty of establishing negligent design without the vehicle as evidence see *Jastrzembski v. General Motors Corp.*, 100 F. Supp. 465 (E.D. Pa. 1951); Nader, *supra* note 119.

who handle personal injury suits are often consulted by accident victims or their families soon enough to preserve evidence which might link unsafe design with the accident or injury. Yet, until recently, even tort specialists have paid little attention to the potential damage remedy against the automobile manufacturer for unsafe design.¹²¹

While injured individuals may be unaware of their potential legal remedy, this explanation seems hardly applicable to insurance companies who have failed to attempt to procure indemnity or contribution against auto manufacturers when injury, death or property damage allegedly results from the unsafe design of motor vehicles.¹²² There may be several reasons for this omission. The insurance industry might hesitate to attack another industry in fear of reprisals directed at its own questionable practices.¹²³ If provoked, the automobile industry might conceivably compete in the liability insurance field; it also has available as leverage its position as a consumer of insurance.

Whether the reluctance of the courts to enunciate doctrines favorable to recovery is a cause or effect of the paucity of design suits is not clear. Given the uncertain chance of recovery, however, one factor which has surely inhibited plaintiffs' lawyers is the cost of litigation. It is well settled that in the United States plaintiffs cannot recover costs as an element of damages.¹²⁴ Therefore, unless the plaintiff himself wishes to underwrite the expenses of preparation and trial, the attorney who decides to pursue

¹²¹ The first scholarly treatment of the subject was written by a member of the plaintiff's bar in 1956. See Katz, *Liability of Automobile Manufacturers for Unsafe Design of Passenger Cars*, 69 HARV. L. REV. 863 (1956). Seven years passed before auto design began to receive serious attention in the publications of the plaintiff's bar. See Nader, *Lawyers Asked to Research Auto Design*, N.A.C.C.A.P.I. & E. BULL., April 1963, at 13; 6 N.A.C.C.A. NEWS LETTER 107 (1963). For a position paper by the organization, see AMERICAN TRIAL LAWYERS ASS'N, STOP MURDER BY MOTOR (1966).

Perhaps legal education should bear some of the blame for this delay. Academicians in the tort field have focused their energies upon the problem of the allocation of auto accident costs. For reference to the literature see GREGORY & KALVEN, *CASES ON TORTS* 689-786 (1959); W. PROSSER, *HANDBOOK OF THE LAW OF TORTS* § 86 (3d ed. 1964). Little attention has been paid to the use of manufacturer's liability as a means of preventing or minimizing auto accidents and injuries. But see O'Connell, *Taming the Automobile*, 58 NW. U.L. REV. 299 (1963). See also O'CONNELL & MYERS, *SAFETY LAST: AN INDICTMENT OF THE AUTO INDUSTRY* (1966).

¹²² A recently filed case in a federal court in Montana illustrates the potential of the third party claim. In *Eccleston v. United States*, Civil No. 1222 (D. Mont. 1966), the plaintiff sued the government under the Federal Tort Claims Act for injuries sustained when the front end of the car in which she was riding caught on a cattleguard in a road maintained by the government. The government filed a third party complaint against General Motors alleging that the front end of the vehicle had been negligently designed.

¹²³ For recent peeks into the Pandora's box of insurance, see J. GOLLIN, *PAY NOW, DIE LATER* (1966); Ridgeway, *Underground War on Auto Insurance*, THE NEW REPUBLIC, Dec. 3, 1966, at 19; Ridgeway, *More on Auto Insurance*, *id.*, Jan. 14, 1967, at 21.

¹²⁴ MCCORMICK, *DAMAGES* § 61 (1935).

a claim based upon unsafe design must bear the costs and gamble upon reimbursement from a money judgment in the plaintiff's favor.¹²⁵

The cost of litigation stems from two principal elements of a design case. First, what actually happened. Physical evidence, *i.e.*, the vehicle, must be preserved and the accident reconstructed. In the second collision cases, the plaintiff must procure medical testimony linking his injuries with the allegedly unsafe design feature. Second, one must establish that the design feature was unsafe. To establish this point, plaintiff must produce expert testimony and utilize available discovery procedures.¹²⁶ Clearly, the costs of such proof would be high.

The plaintiff's task in establishing that a design feature caused the accident or injuries is made more difficult not only by high costs but also by deficiencies in accident reporting.¹²⁷ State laws reflect considerable variety in requiring written accident reports. Recent compilations reveal that seven states and the District of Columbia require no accident reports for purposes of investigation and prevention.¹²⁸ Of those states which

¹²⁵ The plaintiff may be able to bring an action against a solvent defendant other than the manufacturer in the second collision cases where the accident was caused by the other's negligence. In this situation the plaintiff's counsel will have no incentive to gamble on the uncertainties of a design suit.

¹²⁶ A memorandum opinion in a recent Corvair case describes the extensive proof which auto design cases may require:

In the trial of this case the Court heard testimony from 41 witnesses.

Most of the witnesses testified in person, but the testimony of a number of officers and employees of General Motors was presented by way of deposition. Approximately 240 exhibits were received in evidence. These exhibits included diagrams and charts illustrating the testimony of witnesses, photographs, maps, and models of rear-end suspensions of a 1960 Corvair automobile, a Volkswagen automobile, a Fiat automobile, a Renault automobile, a Chevy II automobile, and a 1965 Corvair automobile. Most of the witnesses who testified fall into the category of expert witnesses. These included engineers, racing car champion drivers, former and current officers from the California Highway Patrol, the editor of an automotive magazine, engineering and automotive consultants, and university professors of engineering. In addition, the Court saw many films of tests conducted by both sides demonstrating the handling characteristics of other automobiles, including the Falcon, various models of the Chevrolet automobile and the Volkswagen automobile. . . . Some of the circumstantial evidence pertaining to the accident consists of photographs of the road and the two cars involved . . . and a 20-foot [sic] model of the road in question. The presentation of the case required a total of 63 trial days.

Drummond v. General Motors Corp., CCH PRODS. LIAB. REP. ¶ 5611, at 7100 (Super. Ct., Los Angeles County, Cal. 1966).

¹²⁷ "Most state law enforcement agencies do a commendable job in the preparation of accident reports. . . . Local police forces, often lacking training and experience, occasionally leave much to be desired in their reports." White, *The Role of Science in Motor Vehicle Accident Reconstruction*, in *TRAUMA AND THE AUTOMOBILE* 306, 310 (Curran & Chayet eds. 1966). See also Haddon, *A Note Concerning Accident Theory and Research with Special Reference to Motor Vehicle Accidents*, in *id.* 437, 445-46.

¹²⁸ 2 NATIONAL COMM. ON UNIFORM TRAFFIC LAWS AND ORDINANCES, TRAFFIC LAWS

require accident reports geared to investigation and prevention, eight do not specify by statute what information should be included on accident report forms.¹²⁹ Those laws which do specify what accident reports should contain are general, requiring information as to "cause" and "condition" with no further directives requiring specific information concerning possible causative factors.¹³⁰ Thus it is not surprising that accident reports have traditionally stressed the human element in accident causation.¹³¹

The need for competent expert engineering witnesses¹³² may produce a complication more serious than the expense of securing such testimony. Employees of the auto companies will naturally not appear in court on behalf of injured plaintiffs in design suits. The nature of the industry is such that few automotive engineers can find employment outside its confines. A plaintiff's principal source of witnesses is therefore the academic community. The industry practice of making research grants to the few universities already involved in auto safety studies¹³³ may inhibit even these potential witnesses.

The availability to plaintiffs of various evidence-procuring procedural devices in state and federal courts¹³⁴ may affect both the decision to sue and the outcome in design cases. Of course, these factors may not be dispositive. For example, the record of the trial in one case shows that plaintiff had no recourse to discovery procedures and had to establish her case on the basis of expert testimony and physical evidence.¹³⁵ On the other hand, the record in *Muncy v. General Motors Corporation*¹³⁶ is filled with depositions and admissions by the parties, as well as several references to patents. In both cases plaintiffs won jury verdicts.

A final factor which can have an adverse effect on the presentation of the plaintiff's case is the use of the tactics of delay and obstruction by the defendant manufacturer. Such tactics add to the expenses of suit

ANNUAL 171 (1965). These states do require reports to secure information regarding financial responsibility.

¹²⁹ 1 NATIONAL COMM. ON UNIFORM TRAFFIC LAWS AND ORDINANCES, TRAFFIC LAWS ANNUAL 320 (1964).

¹³⁰ *Id.*

¹³¹ See O'Connell, *Taming the Automobile*, 58 NW. U.L. REV. 299, 318-20 (1963).

¹³² For a case where a verdict was set aside because of the inadequacy of the testimony of plaintiff's expert see *Cantos v. General Motors Corp.*, CCH PRODS. LIAB. REP. ¶ 5656 (Super. Ct., Los Angeles County, Cal., Nov. 14, 1966).

¹³³ See, e.g., Boston Record American, Dec. 20, 1965, at 20, col. 1.

¹³⁴ See generally *Developments in the Law—Discovery*, 74 HARV. L. REV. 940 (1961).

¹³⁵ *Mickle v. Blackmon*, 8 A.T.L.A. NEWS LETTER 99 (6th Jud. Cir. Ct. York County, S.C. 1965).

¹³⁶ 357 S.W.2d 430 (Tex. Civ. App. 1962). See also *General Motors Corp. v. Muncy*, 367 F.2d 493 (5th Cir. 1966), *cert. denied*, 386 U.S. 1037 (1967).

and may discourage attorneys from taking design cases. They also complicate attempts to procure evidence through discovery procedures.

Two recent cases demonstrate both the use of these tactics and the capability of the courts to react to them. In *Shepard v. General Motors Corporation*¹³⁷ a design suit was brought to recover for brain injuries suffered by a child who was struck in the head by the hood ornament of a 1955 Chevrolet. In granting the plaintiff's motion for a default judgment¹³⁸ the court characterized the conduct of the defendant as "a deception of this Court," and stated: "The dilatory and contumacious conduct of the defendant has disrupted the orderly administration of justice and has impeded and frustrated the plaintiffs in the investigation and presentation of their cases."¹³⁹

On the other hand, in *People ex rel. General Motors Corporation v. Bua*,¹⁴⁰ the Illinois supreme court granted writs of mandamus and prohibition against a trial judge who had entered a default judgment against General Motors in a Corvair case on the ground that the defendant had wilfully refused to comply with discovery orders. The court held that the orders were too broad and encompassed the production of documents which should not have been included without a preliminary showing of materiality and relevance. The court added that the sanction imposed by the trial judge was also too broad. He should have stricken only those pleadings relating to the information withheld,—*e.g.*, the unreasonable dangers allegedly created by the design of the vehicle—and left untouched the defendant's pleadings concerning the plaintiff's contributory negligence and damages.

The imbalance between plaintiffs and defendants in auto design suits is further exacerbated by the fact that specialists who represent plaintiffs in personal injury cases tend to practice alone or in small firms. Thus, they are less able to bear the costs of litigation than are large law offices.¹⁴¹

¹³⁷ Nos. 2461, 2462 (D.N.H., Feb. 3, 1967).

¹³⁸ It should be noted that submission to default judgments in cases where the defendant's liability may be clear prevents appellate courts from rendering decisions on the merits which might enunciate doctrines favorable to the imposition of liability in design cases.

¹³⁹ Nos. 2461, 2462 (D.N.H., Feb. 3, 1967).

¹⁴⁰ 226 N.E.2d 6 (1967).

¹⁴¹ For a general discussion of the advantages of large law firms see Joost, *Consolidation of Law Offices*, 53 A.B.A.J. 429 (1967). The imaginative approach taken by a group of plaintiffs' attorneys in the litigation involving the MER/29 drug might have been worth following in the auto design cases. Some 175 lawyers representing 400-500 persons claiming injuries from the drug pooled their resources and formed a united front in their suits against the drug company. See M. MINTZ, *THE THERAPEUTIC NIGHTMARE* 246 (1965). This strategy enabled the plaintiffs and their attorneys to share costs and utilize the best talents available during the litigation. The results so far have been spectacular. Verdicts of \$675,000, \$117,000, and \$1.2 million were reported in 8 A.T.L.A. NEWS LETTER 135 (1966), and 9 *id.* at 364 (1966).

V

THE TRAFFIC AND MOTOR VEHICLE SAFETY ACT

The interrelationship between a legislative-administrative policy on a particular hazard pattern and the judicial resolution of private conflicts has long been established. Aviation accident litigation illustrates the importance of access to and utilization of Civil Aeronautics Board investigative findings in private actions for injury and death.¹⁴² In other areas the factual determinations of administrative agencies can play a key role in actions against private or government defendants.¹⁴³ Until the enactment of the National Traffic and Motor Vehicle Safety Act of 1966, a plaintiff's burden of proving unsafe motor vehicle design was not lightened by public activities pursuant to a statutory-administrative framework.¹⁴⁴ The provisions of the new act, as administered by the National Traffic Safety Agency, should have direct relevance not only to the future direction of design liability cases but to the continued bringing of such suits as well.

In passing the act without a single dissenting vote,¹⁴⁵ Congress has articulated a clear public policy on motor vehicle design safety. The specific provisions of the act represent obligations by the automobile industry to the public. The government is pledged to secure these obligations by a number of mechanisms contained in the act.

The first of these mechanisms is the standard-setting mandate.¹⁴⁶ The standards may have two important impacts upon the judicial process. First, while compliance with the standards will not be dispositive of the

¹⁴² See 2 L. KREINDLER, *AVIATION ACCIDENT LAW* ch. 22 (1963).

¹⁴³ See generally Greenstone, *Federal Aids in Tort Practice*, in 1962 N.A.C.C.A. CONVENTION TRANSCRIPT 310 (Barton ed.). On the use of Coast Guard board of investigation reports see 1 P. EDELMAN, *MARITIME INJURY AND DEATH* 769-70 (1960). On the role of the Food and Drug Administration, see Rheingold, *Products Liability—The Ethical Drug Manufacturer's Liability*, 18 *RUTGERS L. REV.* 947 (1964); Note, *The Drug Amendments of 1962: How Much Regulation*, 18 *RUTGERS L. REV.* 101 (1963).

¹⁴⁴ On the inadequacy of state regulation of automobile design and equipment performance, see Brenner, *Legal Requirements for the Equipment and Design of Private Motor Vehicles: State Action and National Problems*, 23 *GEO. WASH. L. REV.* 429 (1955). Research has disclosed no instance of the enforcement of state criminal or administrative sanctions against an automobile manufacturer or dealer for violating laws or regulations pertaining to vehicle design. In 1964, however, the Kentucky Senate passed a resolution requesting the industry to design safer cars. Ky. Senate Res. 26, Mar. 12, 1964, quoted in 1965 *TRAFFIC LAWS ANNUAL* 477-78.

On the inadequacy of pre-1966 federal regulation of motor vehicle design and performance, see Nader, *The Emergent Federal Role in Automobile Safety*, in *TRAUMA AND THE AUTOMOBILE* 113 (Curran & Chayet eds. 1966).

¹⁴⁵ 112 *CONG. REC.* 13,611 (daily ed. June 24, 1966); 112 *id.* 18,813 (daily ed. Aug. 17, 1966).

¹⁴⁶ National Traffic and Motor Vehicle Safety Act, § 103(a), 80 Stat. 718, 719 (1966), 15 U.S.C.A. § 1392(a) (Supp. 1966).

question of common law liability,¹⁴⁷ violation of the standards will be strong evidence of failure to use due care, if not negligence per se.¹⁴⁸ In addition, the standards will emphasize areas in which manufacturers should assume responsibility for the consequences of their designs.¹⁴⁹ The statute in effect established four categories of motor vehicle safety for which standards are to be issued: (1) engineering design which reduces the risk of accidents; (2) engineering design which reduces the risk of injury when accidents occur; (3) engineering design which provides greater tolerance for pedestrians on impact; and (4) engineering design which protects persons from injury while the vehicle is not in operation.¹⁵⁰ The reluctance of the courts to recognize these safety values should vanish, now that they are embodied in statute and regulation.

The second mechanism is a federal commitment to accident-injury investigations.¹⁵¹ These projects will involve cooperation with state agencies. It is expected that the federal government will directly fund a number of intensive pilot investigation projects and assist the improvement of state investigative facilities. The consequences of this fact finding effort should be substantial, though not immediate, because of the time required to establish the systems.

Comprehensive accident-injury investigation and data collection can revolutionize the factual input of design liability cases. With relatively simple accident-injury report forms on computer tape, it will be possible to construct car-hazard indices which measure the accident and injury proneness of the various vehicle designs against equivalent average drivers and road environs. Another technique which can define certain patterns consists of taking the registration data in a number of states to determine whether the "junking" rate of specific vehicle models is unusually high.¹⁵²

Because of the obvious commercial significance which accident-injury investigation data are bound to have, it is important to note that section 106 of the Highway Safety Act, a companion statute dealing with high-

¹⁴⁷ See *id.* § 108(c), 80 Stat. 722, 15 U.S.C.A. § 1397(c) (Supp. 1966).

¹⁴⁸ See Morris, *The Role of Administrative Safety Measures in Negligence Actions*, 28 TEXAS L. REV. 143 (1949), reprinted in C. MORRIS, *STUDIES IN THE LAW OF TORTS* 182 (1952); Comment, *Products Liability Based Upon the Violation of Statutory Standards*, 64 MICH. L. REV. 1388 (1966).

¹⁴⁹ This idea has hitherto found little sympathy from judges. See Part III *supra*.

¹⁵⁰ National Traffic and Motor Vehicle Safety Act § 102(1), 15 U.S.C.A. 1391(i) (Supp. 1966); S. REP. NO. 1301, 89th Cong., 2d Sess. 3, 5 (1966).

¹⁵¹ National Traffic and Motor Vehicle Safety Act, § 106, 15 U.S.C.A. § 1395 (Supp. 1966).

¹⁵² This technique is suggested in a study by Suspensions International Corp. on *Handling Problems of Rear Engine Cars with Swing Axle Suspensions*, in *Hearings on the Federal Role in Traffic Safety Before the Subcomm. on Executive Reorganization of the Senate Comm. on Government Operations*, 89th Cong., 2d Sess., pt. 4, at 1473, 1488 (1966).

way safety programs, requires that all facts contained in any federal report (or federally contracted report) relating to traffic accidents shall be available for use "in any civil, criminal, or other judicial proceeding arising out of such accident," and "any such officer, employee, or agent may be required to testify in such proceedings as to the facts developed in such investigation."¹⁵³ The one restriction is that any reports so made public shall not identify individuals,¹⁵⁴ a provision designed to minimize the inhibitory effect on volunteering information.

The third mechanism is the requirement that the manufacturer give warning of defects to the first purchaser of the vehicle (for purposes other than resale),¹⁵⁵ and the discretionary authority given the Secretary of Transportation to require the manufacturer to provide the first purchaser with information dealing with performance and safety.¹⁵⁶ These provisions can both facilitate recoveries for plaintiffs and furnish defendants with defenses. Clearly, notification of defects creates a public record of those automobile models which are defective. It also provides a basis for further inquiry to decide (a) whether defects were discovered promptly enough, (b) whether the nature of the hazard was made sufficiently clear in the company's communication to the consumer, (c) whether the owner was contributorily negligent through his failure to return or delay in returning the vehicle for correction, and (d) whether the dealer actually made the correction. Disclosure about model performance and safety would permit consumer differentiation among models, provided that all manufacturers do not consciously choose to adhere only to minimum government standards. Moreover, recovery in a design liability case is more likely when design standards already applicable to the industry can be deployed against the allegedly unsafe vehicle.

The fourth mechanism is the charge to the Secretary of Transportation to "conduct research, testing, development and training necessary to carry out the purposes of this title."¹⁵⁷ Among the specific functions here is that based on the crucial directive to procure "experimental and other motor vehicles or motor vehicle equipment for research and testing purposes."¹⁵⁸ Such research should provide nonindustry indications of feasible safety devices and greater popular expectation of engineering safety innovation. In addition, plaintiffs in design liability suits will be

¹⁵³ Highway Safety Act, § 106, 23 U.S.C.A. § 403 (Supp. 1966).

¹⁵⁴ *Id.*

¹⁵⁵ National Traffic and Motor Vehicle Safety Act, § 113, 15 U.S.C.A. § 1402 (Supp. 1966).

¹⁵⁶ *Id.* § 112(d), (Supp. 1966).

¹⁵⁷ *Id.* § 106, 15 U.S.C.A. § 1395 (Supp. 1966), as amended, 49 U.S.C.A. § 1652(f) (i) (Supp. 1966).

¹⁵⁸ *Id.* § 106(a)(2), 80 Stat. at 721, 15 U.S.C.A. § 1395(a)(2) (Supp. 1966).

able to draw upon a pool of expertise outside the auto industry. Thus the litigating forces may reach a more equitable balance.

The new auto safety legislation may also have an impact on competition between companies. The highly concentrated domestic automobile industry has displayed a decreased interest in product competition and a growing emphasis on product identification, both predictable characteristics of oligopoly.¹⁵⁹ Thus, the tremendous importance given to choosing the proper name for a new model and the heavy advertising focus on a car's image illustrate the industry's attempt to relate brand loyalty to values closely associated with emotional needs and quite distant from the functional attributes of the vehicle.¹⁶⁰

This narrowing of product competition was described by George Romney, then President of American Motors, in his testimony before the Kefauver Subcommittee in 1958. He cited General Motors' introduction of the wraparound windshield as an example of a style change with no functional improvement which the rest of the industry was forced to follow because of General Motors' dominant position in the market.¹⁶¹

The auto safety law unequivocally reflects a Congressional intent that competition should continue to serve as a viable spur for greater product safety.¹⁶² Section 116 states that "nothing contained herein shall be deemed to exempt from the antitrust laws of the United States any conduct that would otherwise be unlawful under such laws, or to prohibit under the antitrust laws of the United States any conduct that would be lawful under such laws."¹⁶³ However, the act as a whole will probably re-

¹⁵⁹ See E. KEFAUVER, IN A FEW HANDS: MONOPOLY POWER IN AMERICA ch. 2 (1965). The disc brake and radial ply tires, two of the most significant developments in automotive technology in the last thirty years, were both developed and placed into production first by European manufacturers many years before their use by American manufacturers.

¹⁶⁰ See O'Connell, *Detroit's Double Talk on Safety*, THE PROGRESSIVE, Jan. 1967, at 37; O'Connell, *Taming the Automobile*, 50 NW. U.L. REV. 299, 358-63 (1963). See also Irvin, *How Hints about Cougar Were Leaked to the Press*, Detroit News, Feb. 11, 1967, at 8A.

¹⁶¹ *Hearings on Administered Prices, Automobiles, Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on Judiciary*, 85th Cong., 2d Sess., pt. 6, at 2879 (1958). See also E. KEFAUVER, *supra* note 159, at 101.

¹⁶² See S. REP. NO. 1301, 89th Cong., 2d Sess. 4 (1966).

¹⁶³ National Traffic and Motor Vehicle Safety Act, § 116, 80 Stat. 718, 727 (1966), 15 U.S.C.A. § 1405 (Supp. 1966). The auto industry's presentation before Congress reflected a desire to receive an antitrust exemption for cooperating in the safety area. *Hearings on Traffic Safety Before the Senate Comm. on Commerce*, 89th Cong., 2d Sess., Ser. No. 89-49, at 380 (1966). Assistant Attorney General Donald F. Turner, in a letter to Senator Warren G. Magnuson, strongly opposed any such exemption, and stated that the antitrust laws do not prohibit cooperation which does not have an anti-competitive effect. *Id.* at 542. It is interesting to note that the Justice Department has been proceeding before a Los Angeles grand jury on the allegation that the domestic automobile industry, in violation of the antitrust laws, engaged in concerted action to restrain competition in the development and marketing of automobile exhaust control devices. See Wall Street Journal, June 22, 1966, at 3, col. 2.

sult in a much closer interaction, in terms of exchange of information, strategy and unity of position, within the domestic auto industry. Thus, the statute gives rise to contending forces which are likely to require regulatory clarification, if not antitrust action.

VI

ROLE OF THE COURTS

Any assessment of the role of the judicial process as a public mechanism to control automobile design must initially confront the question whether damage suits have had and can have any effect upon the private decisions which result in the American motor vehicle. There is simply no data available from the manufacturers from which to ascertain the financial impact which design suits have made on the industry. While a number of verdicts and settlements have been publicized,¹⁶⁴ the total amount of money which has changed hands as a result of unsafe design claims remains unrecorded.¹⁶⁵ The cost incurred by the industry in defending these suits has not been revealed.¹⁶⁶ The degree to which the manufacturers' economic loss has been shifted by the use of products liability insurance is also unknown.¹⁶⁷ Thus a lack of data impedes a precise calculation of the economic impact of products liability suits on the manufacturers.

Design suits also affect the manufacturers through the publicity afforded the suits. The naming of brand names by the communication media¹⁶⁸ has stimulated public awareness of both the results of design cases and the mere filing of actions alleging unsafe design. The Corvair

¹⁶⁴ See notes 3-4 *supra*.

¹⁶⁵ For example, a recent article by a personal injury attorney states that more than 150 design cases have been filed against General Motors as a result of accidents allegedly caused by a deficiency in the front end main cross member of the 1961 Pontiac Tempest. Philo, *Automobile Products Liability Litigation*, 4 DUQUESNE L. REV. 181 (1965-66). Research has failed to uncover whether any of these suits has reached disposition.

¹⁶⁶ One report on the Corvair litigation states that "it is estimated that the legal sparring which is going on is costing GM at least \$10,000 a day." *Cars on Trial*, 215 THE ECONOMIST 1281 (1965).

¹⁶⁷ An arresting insight has been provided by counsel for plaintiff in *Dumas v. Chevrolet Div. of General Motors Corp.*, CCH PRODS. LIAB. REP. ¶ 5570 (24th Jud. Dist. Ct., Jefferson Parish, La. 1965): "Royal Globe was the insurer of General Motors at the time, and after the case was over and they paid us off we found out that Royal Globe did not actually insure General Motors, but just picked up the cost of the defense. We were really paid off by General Motors and . . . while Royal Globe was General Product Liability insurer of General Motors, . . . they refused to insure the Corvair particularly, and that they excluded them from coverage. I would expect the reason for this exclusion might be discoverable." Transcript, Greater New Orleans Trial Lawyers' Ass'n Product Liability Law Seminar, New Orleans, La., Apr. 2, 1966, at 133.

¹⁶⁸ This is a relatively recent phenomenon. The crucial breakthrough was accomplished in Ridgeway, *Car Design and Public Safety*, NEW REPUBLIC, Sept. 19, 1964, at 9, which mentioned the Corvair by name.

litigation is a case in point. The controversy over the vehicle's allegedly defective suspension system has received widespread publicity,¹⁶⁹ sales of the model have decreased considerably,¹⁷⁰ and "there have been persistent rumors—persistently denied—that the car is to be phased out."¹⁷¹ General Motors has not ignored the publicity factor. The company has made available to owners a bumper sticker which reads "I love my Corvair."¹⁷² And after a verdict in General Motors' favor, the company widely distributed a press release celebrating the victory and including a specially printed copy of the trial judge's memorandum opinion.¹⁷³

It is arguable that publicity from auto design litigation played some role in the passage of the National Traffic and Motor Vehicle Safety Act. Concern over the suits may well have contributed to the creation of the sense of urgency which propelled this legislation through Congress.¹⁷⁴ In addition, greater public awareness of design litigation heightens the possibility that potentially actionable design suits will be pursued, thus increasing the prophylactic efficacy of product liability suits.¹⁷⁵

From the foregoing, one may conclude that damage suits have created some pressure for the safer design of motor vehicles. While the extent of this pressure cannot be measured with certainty, the damage suit emerges as one facet of a complex of interacting forces bearing upon the private design decisions of the automobile industry.

We have already discussed the ways in which the new federal statute may affect the disposition of automobile design suits.¹⁷⁶ The basic question remains, however, whether the act leaves the judicial process any opportunity for creative participation in the rendering of public judgments on auto design. The courts will face the design problem in three different

¹⁶⁹ See, e.g., N.Y. Times, July 28, 1965, at 12, col. 1 (late city ed.); TIME, Sept. 10, 1965, at 37; *id.*, Aug. 20 1965, at 46.

¹⁷⁰ Brayman, *Safety Issue Puts Brake on Sales of New Cars*, NATIONAL OBSERVER, Apr. 16, 1966, at 8, col. 3; Detroit News, May 22, 1966, at 10B, col. 7 ("GM President James M. Roche said he thought the lawsuits challenging the safety of the Chevrolet Corvair were at least partly responsible in the 50 per cent drop in sales of that car this year.").

¹⁷¹ N.Y. Times, Apr. 6, 1966, at 1, col. 8 (late city ed.).

¹⁷² On the other hand, a Denver Corvair owner, apparently unmindful of the legal implications of the doctrine of assumption of risk, printed and displayed on his car a sticker reading "Unsafe at Any Speed."

¹⁷³ The case was *Drummond v. General Motors Corp.*, CCH PRODS. LIAB. REP. ¶ 5611 (Super. Ct., Los Angeles County Cal. 1966). Lest anyone doubt the wisdom of this tactic, newspaper articles reporting the case and obviously written from the press release were reprinted in the Congressional Record shortly thereafter. 112 CONG. REC. A 4275 (daily ed. Aug. 12, 1966); 112 *id.* A 4572 (daily ed. Aug. 29, 1966).

¹⁷⁴ See generally *Hearings on the Federal Role in Traffic Safety Before the Subcomm. on Executive Reorganization of the Senate Comm. on Government Operations*, 89th Cong., 2d Sess., pt. 4 (1966).

¹⁷⁵ See text accompanying note 119 *supra*.

¹⁷⁶ See Part V *supra*.

settings: (1) when the standards set by the agency are not met; (2) when the standards set by the agency are arguably inadequate; (3) when there are no standards applicable to the case at bar. The third instance may involve vehicles manufactured before the act was passed, or vehicles which were produced after the promulgation of standards but which may have unsafe design features not covered by the standards. In each situation, the court must consider whether it can properly formulate a judgment on the design feature alleged to be unsafe.

When the manufacturer fails to meet a federal standard and this failure causes harm, there is little doubt that the court will deem the issue of unsafe design appropriate for adjudication.¹⁷⁷ Failure to comply with the standards would then be evidence of negligence, or perhaps even constitute negligence per se.¹⁷⁸

Where the plaintiff alleges that a federal standard is inadequate and that the manufacturer should be held to a higher standard of care, it is well settled that compliance is evidence of due care, but that the plaintiff will be allowed to introduce evidence to show that the defendant should have taken additional precautions.¹⁷⁹

Significantly, section 108(c) of the statute provides that "compliance with any Federal motor vehicle safety standard issued under this title does not exempt any person from any liability under common law."¹⁸⁰ The report of the House Interstate and Commerce Committee spelled out in unequivocal terms the legislative intent:

It is intended, and this subsection specifically establishes, that compliance with safety standards is not to be a defense or otherwise to affect the rights of parties under common law particularly those relating to warranty, contract, and tort liability. It follows that noncompliance even though exempt under paragraph (2) of subsection (b) of this section will not excuse any person from otherwise applicable legal liability.¹⁸¹

The report of the Senate Committee on Commerce states that "the Federal minimum safety standards need not be interpreted as restricting

¹⁷⁷ It has been suggested that the act may give rise to a federal right of action for damages. Thus, the federal courts would have jurisdiction over the suit, and the state courts would be compelled to enforce this federally created right. Note, 80 HARV. L. REV. 688, 693 n.29 (1967).

¹⁷⁸ See authorities cited note 148 *supra*.

¹⁷⁹ Morris, *supra* note 148, at 157-66, reprinted in C. MORRIS, *supra* note 148, at 200-11; W. PROSSER, HANDBOOK OF THE LAW OF TORTS 205 (3d ed. 1964). For a recent case illustrating this point, see Hubbard-Hall Chem. Co. v. Silverman, 340 F.2d 402 (1st Cir. 1965).

¹⁸⁰ National Traffic and Motor Vehicle Safety Act § 108(c), 80 Stat. 718, 723 (1966), 15 U.S.C.A. § 1397 (Supp. 1966).

¹⁸¹ H.R. REP. NO. 1776, 89th Cong., 2d Sess. 24 (1966).

State common law standards of care. Compliance with such standards would thus not necessarily shield any person from product liability at common law."¹⁸²

Since Congress has spelled out such a clear intent not to exclude the state courts from establishing standards more rigorous than those set pursuant to the statute, it must follow that the courts are free to determine what constitutes due care with respect to design features not covered by federal standards.¹⁸³ At this early stage of standard-setting, the absence of standards applicable to particular features of new cars would surely not imply a decision by the agency that no standards are needed.¹⁸⁴

The argument has been made that standard-setting by an administrative agency is preferable to case-by-case judgments by the courts because the agency is better able to reflect the engineering complexities inherent in safety design problems and to give consistency and uniformity to the public regulation of vehicle design.¹⁸⁵ If this means that the courts should be bound by the norms, or the absence of norms, promulgated by the agency, the contention is inconsistent with the express directive of section 108(c) of the federal act.

While there is much to be said for consistency and uniformity, achieving these ends by making the agency the sole and ultimate arbiter of design standards ignores the political aspect of design decisions. When the standard-setting function is centered exclusively in a single agency, that agency becomes the sole target for outside pressures. There is only one battle to be won. The considerable power of the automobile industry, brought to bear on the agency, will inevitably affect the standard-setting process.¹⁸⁶ Therefore, a decentralization of the decision-making function allows the creation of countervailing pressures which can support or prod the agency.¹⁸⁷ This is perhaps what Congress intended to be the thrust of section 108(c).

¹⁸² S. REP. NO. 1301, 89th Cong., 2d Sess. 12 (1966).

¹⁸³ Section 108(b)(1) directs the Secretary to study the safety standards of used vehicles and to recommend additional legislation to cover these cars. 80 Stat. 718, 722 (1966), 15 U.S.C.A. 1397 (Supp. 1966). The act, itself seems to be an indication that Congress wants used cars maintained and upgraded from the standards existing when the cars were first purchased. This upgrading would utilize not only newly developed features, but features available at the time of sale (like seat belts, signal devices and better handling capabilities).

¹⁸⁴ See Morris, *supra* note 148, at 160-62, reprinted in C. MORRIS, STUDIES IN THE LAW OF TORTS 204-06.

¹⁸⁵ Note, 80 HARV. L. REV. 688, 692-93 (1967).

¹⁸⁶ The controversy which has surrounded the issuance of the first standards illustrates this problem. See Christian Science Monitor, Feb. 2, 1967, at 3, col. 1 (eastern ed.); Denver Post, Feb. 2, 1967, at 11, col. 3; Wall Street Journal, Feb. 2, 1967, at 10, col. 4.

¹⁸⁷ Such decentralization also provides for some measure of popular participation in the public judgment of design standards.

Judicial decisions on auto design might produce such uncertainty that the manufacturers would be forced to adopt high safety standards which required the sacrifice of other values, like economy and style.¹⁸⁸ If the courts impose a duty on the manufacturers to take *reasonable* design precautions to avoid or lessen foreseeable harm,¹⁸⁹ however, such an imbalance need not be the result. The courts are as well equipped as an administrative agency to weigh competing interests. In fact, the general formula for negligence always involves this type of balancing.¹⁹⁰ Moreover, since Congress has specifically indicated that courts are to treat the federal standards as minimum standards,¹⁹¹ it may be that Congress intended to use uncertainty to spur the industry toward greater safety innovation, rather than permitting the manufacturers to discharge their obligations to the public by mere compliance with the administrative norms.

We have already urged that the technical nature of auto design suits should not exclude judicial consideration of the issues involved.¹⁹² The work of the agency should provide a greater understanding of accident and injury causation.¹⁹³ Courts and agency can effectively interact; the agency can assist in supplying the factual input for design cases, the courts can furnish an independent judgment upon the standards or the lack of standards attributable to the agency, and the agency can then respond to the decisions of the courts.

Despite the current relevance of tort doctrine and technology to the resolution of design suits, the courts have thus far failed to grasp the opportunity to play a significant role in the evolution of public regulation of vehicle design. The initiative has been left to the legislature in spite of the capability of the judicial process to serve as a catalyst for legislative-administrative action.¹⁹⁴ But the postman always rings twice. With section 108(c) Congress has issued an invitation for the courts to participate in the fashioning of design standards. The courts' reaction to this challenge can affect society's attempt to control the environmental hazards caused by automobile design.

¹⁸⁸ See Note, 80 HARV. L. REV. 688, 693 (1967).

¹⁸⁹ See text accompanying notes 64-66 *supra*.

¹⁹⁰ See W. PROSSER, HANDBOOK OF THE LAW OF TORTS § 31 (3d ed. 1964).

¹⁹¹ See text accompanying note 180-82 *supra*.

¹⁹² See Part III(F), *supra*.

¹⁹³ See Part V *supra*.

¹⁹⁴ Cf. R. Keeton, *Creative Continuity in the Law of Torts*, 75 HARV. L. REV. 463, 475 (1962). On the possible impact of design suits on the passage of the federal act, see text accompanying notes 168-75 *supra*.