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Martin v. Volkswagen of America, Inc.: Crashworthiness in North Carolina

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In *Martin v. Volkswagen of America, Inc.* the United States Court of Appeals for the Fourth Circuit returned to the problem of predicting whether North Carolina would accept the products liability doctrine of crashworthiness. No reported North Carolina case addresses this issue, and given the absence of any significant production of motor vehicles in the state, the chance of its being so addressed in the near future is remote. Faced with this vacuum in the state law, the court of appeals followed its own enigmatic precedent, *Wilson v. Ford Motor Co.*, and held that North Carolina would not adopt the theory. *Martin* is significant primarily because it provided a forum to discuss the basis for rejecting the crashworthiness doctrine in *Wilson*.

Crashworthiness, a relatively recent products liability theory, first gained prominence in the United States Court of Appeals for the Eighth Circuit in *Larsen v. General Motors Corp.* A court applying the crashworthiness doctrine imposes liability on a manufacturer for injuries incurred in motor vehicle accidents to the extent the injuries are enhanced by defects that, though unrelated to the cause of the accident, are caused by the "second collision" of the occupants with the interior of the passenger compartment. This enhancement consists of any injuries in excess of those that "probably would have occurred as a result of the impact . . . absent the defective design."6

Because crashworthiness is a negligence theory, the defect must result from some negligence of the manufacturer in the design or construction of the vehicle. The manufacturer is negligent when it violates the duty to "use reasonable care in the design of its vehicle to avoid subjecting the user to an unreasonable risk of injury in the event of a collision."9 This duty of reasonable care in design also includes a duty to "inspect and to test for designs that

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1. 707 F.2d 823 (4th Cir. 1983).
2. Id. at 828 n.1. See infra note 63.
3. 656 F.2d 960 (4th Cir. 1981). In *Wilson* the court of appeals concluded that the district court's refusal to recognize the crashworthiness doctrine was not reversible error. The court stated that the district court had made a careful review of the "related State cases and the several and divergent federal court determinations on the issue." Id.
4. 391 F.2d 495 (8th Cir. 1968). General Motors was held liable for negligence in the design of the Corvair steering assembly which, although not the cause of the accident, resulted in the transmission of the force of a head-on collision through the displacement of the steering shaft towards the driver's head. Other designs then in use would not have allowed such displacement.
5. Id. at 502.
6. Id. at 503.
7. A crashworthiness action could be brought under strict liability or warranty as well as negligence. Its essential elements—a defect not the proximate cause of the accident and enhancement of crash injuries as a result of the defect—are generally compatible with these theories. A warranty action would require privity of contract and an express or implied warranty that the defect was not present. Recent automobile manufacturer advertising in North Carolina could supply the warranty element. See infra note 108. A strict liability action would require that the defect be unreasonably dangerous.
9. Id. at 502.
would cause an unreasonable risk of foreseeable injury;" \(^{10}\) and a duty to warn of the failure to perform such tests and inspections or the presence of a known, dangerous design feature. \(^{11}\) There is no requirement, however, that the manufacturer "design an accident-proof or fool-proof vehicle or even one that floats on water." \(^{12}\)

Only two years before *Larsen* the United States Court of Appeals for the Seventh Circuit rejected the proposition that Indiana law would recognize the validity of the crashworthiness theory in *Evans v. General Motors Corp.* \(^{13}\) The *Evans* court held that while an automobile manufacturer had a "duty to design its product to be reasonably fit for the purpose for which it was made, without hiding defects which would make it dangerous for persons so using it," \(^{14}\) the intended purpose did not "include [the car's] participation in collisions with other objects, despite the manufacturer's ability to foresee the possibility that such collisions may occur." \(^{15}\) Thus, *Evans* stands for the proposition that an automobile manufacturer is not liable for injuries caused by a defect that did not contribute to the cause of the initial collision. \(^{16}\)

The *Larsen* definition of the duty of automobile manufacturers generally has prevailed over the definition in *Evans*. \(^{17}\) In fact, in 1977 *Evans* was overruled by the Seventh Circuit. \(^{18}\) The *Evans* rationale, however, is still followed by those federal courts that reject crashworthiness.

Although no North Carolina court has addressed the issue of crashworthiness, there is a series of cases in which the federal courts in North Carolina have attempted to predict whether North Carolina courts would adopt the doctrine. The first was *Bulliner v. General Motors Corp.*, \(^{19}\) decided in 1971, in which the United States District Court for the Eastern District of North Carolina determined that North Carolina would not adopt the doctrine because North Carolina law required a "causal relationship between the alleged negligence and the accident." \(^{20}\) The court's consideration of crashworthiness was inappropriate and unnecessary, however, because the al-

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10. *Id.* at 505.
11. *Id.*
12. *Id.* at 502.
13. 359 F.2d 822 (7th Cir. 1966). *Evans* was brought in an Indiana federal district court. Decedent was killed in a collision when the left side of the car collapsed on him because of the design of the car's frame. Plaintiff alleged that use of the design was negligent because a frame design with side rails that would have better protected the decedent was available. Because Indiana law had not addressed the crashworthiness issue the court was forced to anticipate the response of the Indiana Supreme Court. *Id.* at 826 (Kiley, J., dissenting).
14. *Id.* at 824.
15. *Id.* at 825.
16. *Id.*
19. 54 F.R.D. 479 (E.D.N.C. 1971).
20. *Id.* at 482. The front wheel of plaintiff's van fell off and caused the vehicle to swerve into a ditch. The wheel failure allegedly was caused by negligent design of the wheel retention mechanism.
leged negligence would have been the proximate cause of the accident, not of any enhancement of injuries. Thus, the Bulliner holding on crashworthiness is dictum.

After Bulliner the United States District Court for the Western District of North Carolina decided Alexander v. Seaboard Air Line R.R., which involved the collision of a car with a locomotive. The court reviewed the considerable precedent in accord with Evans and what little was in accord with Larsen. The Alexander court read Larsen as requiring a manufacturer to design a vehicle to be absolutely safe in any conceivable collision, including one with a speeding locomotive. Since North Carolina had not addressed crashworthiness, the district court looked to general North Carolina products liability law. It found that while a manufacturer has a duty to anticipate the probable results of normal uses of its product, there was no similar duty regarding the results of abnormal, reasonably unforeseeable, or criminal uses. The court considered the “'patently careless and improvident conduct'” of plaintiff to be clearly abnormal and reasonably unforeseeable. Fearing that acceptance of Larsen would loosen the requirement of causation, and let in a flood of absurd claims, the court expressly rejected the crashworthiness doctrine. The court of appeals affirmed, but held it “unnecessary to discern and apply a nonexistent North Carolina rule of law” because damage from impact with the train was so great that the alleged defect could not have been a proximate cause of any additional injury.

In Simpson v. Hurst Performance, Inc. decided in 1977, a floor-mounted

21. Id. The court already had ruled that there was insufficient evidence of design negligence. Id. Thus the court's prediction was unnecessary.
23. 346 F. Supp. 320 (W.D.N.C. 1971), aff'd, No. 71-1915, slip op. (4th Cir., Apr. 25, 1972). The facts in Alexander were rather unsympathetic. Plaintiff drove his Volkswagen into the side of a locomotive as it sped through a railroad crossing. The car traveled a considerable distance under the wheels of the train, crushing the gas tank located in the front of the car. This resulted in a fire which completely destroyed the car and injured plaintiff. Plaintiff alleged that negligent design caused the gas cap to fly off on impact, resulting in the fire.
24. Id. at 324-26.
25. Id. at 323-24.
26. Id. at 327. The Alexander court disregarded Larsen's reasonableness limitation as to risks that must be eliminated, Larsen, 391 F.2d at 503, and asked: "Must [the manufacturer] foresee and design a vehicle to withstand a collision with a 114-ton locomotive engine pulling a freight train traveling at 45 miles per hour?" Alexander, 346 F. Supp. at 327. There was little chance of plaintiff winning regardless of the theory used.
29. Id.
31. 437 F. Supp. 445 (M.D.N.C. 1977), aff'd, 588 F.2d 1351 (1981). Plaintiff was a passenger seated in the middle of the car's bench-type front seat. The car originally had a gearshift mounted on the steering column, but a previous owner had replaced it with a floor-mounted gearshift made by defendant. The auto was involved in a head-on collision and plaintiff was thrown forward and impaled on the gearshift. Plaintiff alleged that defendant gearshift manufacturer was negligent in failing to warn purchasers and users that the unit was dangerous when installed in an automobile with a bench-type front seat.
NORTH CAROLINA LAW REVIEW

gearshift was deemed a patent danger. Therefore, its manufacturer was not negligent in failing to warn of the danger of a passenger being impaled on it in a head-on collision. The court determined, on the strength of the Bulliner and Alexander decisions, that even if negligence had been found, North Carolina courts would not have imposed liability under the crashworthiness theory.

Larsen was adopted first in North Carolina by the United States District Court for the Middle District in North Carolina in Isaacson v. Toyota Motor Sales. In Isaacson a car that had stopped for a raised drawbridge was struck in the rear. It burst into flames and killed the passengers. The complaint alleged that negligent design caused the gas tank to rupture, filling the passenger compartment with gasoline fumes. The Isaacson court rejected the earlier federal court decisions dealing with the crashworthiness doctrine, and maintained that North Carolina, while not a products liability innovator, would be responsive to the near unanimity in other jurisdictions and adopt Larsen.

The Isaacson court believed that two arguments from Larsen would be persuasive to North Carolina courts. First, it would be irrational to differentiate, as the Evans court had, between defects that caused accidents, and defects that merely enhanced the injuries received in accidents. As long as some other event, no matter how trivial, actually began the causal chain, a court following Evans would insulate manufacturers from liability, no matter how gross the negligence or how catastrophic its consequences. It "would invite a harsh result to hold as a matter of law that a manufacturer is under no duty to manufacture an automobile which is reasonably safe in the event of an accident when the technology to produce such an automobile may be available." Second, despite contentions that Larsen mandated a floating "Sherman tank" design standard, under the crashworthiness theory the manufacturer need eliminate only unreasonable dangers in accordance with general negligence principles. These principles contemplate a balancing of the burden of protection against the possible harm to be avoided.

32. The court stated that:

The duty of reasonable care comprehends a duty to warn of danger and consequently a manufacturer of product which to his actual or constructive knowledge involves dangers to users has a duty to give warning of such dangers. Stegall v. Catawba Oil Co., 260 N.C. 459, 133 S.E.2d 138 (1963). However, the manufacturer is not liable for injury to the user by reason of a condition which is plainly observable. Douglas v. W. C. Mallison & Son, 265 N.C. 362, 144 S.E.2d 138 (1965).

33. Id. at 447. The argument could be made that this is dictum. The finding that defendant manufacturer was not negligent made consideration of the crashworthiness doctrine unnecessary.

34. 438 F. Supp. 1 (E.D.N.C. 1976). Isaacson was decided 14 months before Simpson.

35. Id. at 4.

36. Id. at 5-6. The court considered the Bulliner crashworthiness conclusion, see supra note 21, as dictum; it affirmed Alexander on the basis of the severity of the collision, considering treatment of the crashworthiness issue unnecessary. See supra note 30 and accompanying text.


38. Id. at 8.


"The manufacturer does not have to make a product which is 'accident-proof' or 'fool-
After ruling that the North Carolina courts would apply the crashworthiness theory, the court examined defendant's contention that even conceding a duty to make the vehicle reasonably crashworthy, no reasonable steps could have been taken to make the vehicle safe in such a violent collision. The court found insufficient evidence to rule as a matter of law on this contention, and denied defendant's motion for summary judgment.

The next case to examine crashworthiness in North Carolina was Sealey v. Ford Motor Co. In Sealey the passengers burned to death after a ruptured gas tank leaked fumes into the passenger compartment. Plaintiffs contended that negligent design of the fuel tank had allowed it to leak when the car rolled over in an accident. The parties agreed that the facts presented a classic crashworthiness situation. The court then considered the basic rationale for the doctrine and determined that the reasoning in Evans was unrealistic. The court cast its vote with the overwhelming majority of jurisdictions and adopted the Larsen doctrine.

In 1981, despite recent cases such as Isaacson and Sealey and similar assessments from courts in other circuits, the United States Court of Appeals for the Fourth Circuit held in Wilson v. Ford Motor Co. that a district court had not committed reversible error by ruling that "the North Carolina Supreme Court would not hold a manufacturer liable for injuries arising from defects which neither caused nor contributed to the accident." The district court had adopted the questionable, older precedents of Bulliner and Alexander. The court of appeals' three paragraph per curiam opinion gave no specific reasons for its conclusion; a footnote, however, stated that the North Carolina Supreme Court's recent rejection of strict liability in Smith v. Fiber Control Corp. "fortifies our belief that if called upon the Supreme Court of North Carolina would also reject the second crash theory." Given the

proof*. Liability is imposed only when an unreasonable danger is created. Whether or not this has occurred should be determined by general negligence principles, which involve "a balancing of the likelihood of harm if it happens against the burden of precautions which would be effective to avoid the harm." Id. (quoting Noel, Manufacturer's Negligence of Design or Directions for Use of a Product, 71 Yale L.J. 816, 818 (1962) (quoting 2 Harper & James, Torts § 28.4, at 1542 (1956))). This was the first opinion of the North Carolina district courts to mention that Larsen does not require manufacturers to design a "Sherman tank" as was suggested in Alexander, 436 F. Supp. at 327. The omission of this reasonableness element from the earlier district court opinions is an indication that their analyses of Larsen were incomplete.

42. Id.
44. Id. at 477-78. The court, however, found no North Carolina precedent to apply to crashworthiness, and also found a split of authority in the federal courts sitting in North Carolina.
45. Id. at 479.
46. Id. at 478-79.
49. Id.
50. 300 N.C. 669, 268 S.E.2d 504 (1980).
51. Wilson, 656 F.2d at 960 n.1.
supreme court's reasons for declining to accept strict liability, this analogy between strict liability and crashworthiness is tenuous.\textsuperscript{52}

Thus, the stage was set for \textit{Martin v. Volkswagen of America, Inc.}\textsuperscript{53} The federal district court had denied summary judgment in favor of defendant auto manufacturer on a crashworthiness claim.\textsuperscript{54} On appeal, the United States Court of Appeals for the Fourth Circuit determined that reversal was required by \textit{Wilson}, since it is the practice of the court to consider panel decisions as binding precedent until overruled en banc.\textsuperscript{55} Thus, the denial of a rehearing en banc amounted to a decision to adopt \textit{Wilson} as definitive. Judge Murnaghan dissented from the denial to criticize \textit{Wilson}'s validity. This prompted Chief Judge Phillips to concur specially in the per curiam opinion.\textsuperscript{56}

Judge Murnaghan argued that \textit{Wilson}'s prediction that North Carolina would follow \textit{Evans} and reject \textit{Larsen} was "simply wrong."\textsuperscript{57} First, he stated that the rule in \textit{Wilson} was one of proximate cause:

The case holds that, however foreseeable in fact the likelihood of injury might be, an automobile manufacturer, as a matter of law, is free to ignore the inevitable consequences of its negligence when the chain of events triggering a plaintiff's injury (including injury due to the negligent construction of the vehicle) originates with the negligence of a third party.\textsuperscript{58}

North Carolina tort law, however, recognizes no such bright line test; the issue of proximate cause in negligence actions goes to the jury in virtually all cases.\textsuperscript{59} Second, Judge Murnaghan cited with approval the 1981 United States Court of Appeals for the Third Circuit case, \textit{Seese v. Volkswagenwerk A.G.},\textsuperscript{60} which affirmed a New Jersey district court's conclusion that North Carolina would accept the crashworthiness theory. The \textit{Seese} court believed that given the "absence of any expression by North Carolina and a split of authority by federal courts in that state, a prediction as to the law North Carolina would adopt can only be based on the greater persuasiveness of one of the conflicting theories, with an eye to the nationwide trend . . . ."\textsuperscript{61} Both the majority and

\textsuperscript{52} The \textit{Smith} court did not address the merits of strict liability, but based its rejection of the doctrine on its incompatibility with the requirement of N.C. GEN. STAT. \S 99B-4 (1979) that the defenses of contributory negligence and assumption of risk be available in products liability actions. \textit{Smith}, 300 N.C. at 678, 268 S.E.2d at 509-10. Crashworthiness, in contrast to strict liability, is a negligence theory, \textit{Larsen}, 391 F.2d at 503, and is compatible with those defenses, see \textit{Seese v. Volkswagenwerk A.G.}, 648 F.2d 833, 842 (3rd Cir.), cert. denied, 454 U.S. 1031 (1981).

\textsuperscript{53} 707 F.2d 823 (4th Cir. 1983).

\textsuperscript{54} \textit{Martin v. Smith}, 534 F. Supp. 804 (W.D.N.C. 1982).

\textsuperscript{55} \textit{Martin}, 707 F.2d at 827 (Murnaghan, J., dissenting).

\textsuperscript{56} \textit{Id.} at 825 (Phillips, C.J., concurring). Judge Phillips served on the panel that decided \textit{Wilson}, 656 F.2d 960.

\textsuperscript{57} \textit{Id.} at 827 (Murnaghan, J., dissenting).

\textsuperscript{58} \textit{Id.}

\textsuperscript{59} \textit{Id.; See also Williams v. Carolina Power & Light Co.}, 296 N.C. 400, 403, 250 S.E.2d 255, 258 (1979).

\textsuperscript{60} 648 F.2d 833 (3rd Cir.), cert. denied, 454 U.S. 1031 (1981).

\textsuperscript{61} \textit{Id.} at 841. In \textit{Seese} the court examined the federal precedents in North Carolina on the crashworthiness issue and decided to follow the reasoning in \textit{Isaacs} and \textit{Sealey} as more persuasive and consistent with the law in other jurisdictions. \textit{Id.} at 830-40. The court further concluded that: "we take it as beyond peradventure that an automobile manufacturer today has some legal
dissenting opinions in Seese conceded that North Carolina would accept crashworthiness; the dissent differed principally on the refusal to remand for a new trial on damages.

Judge Murnaghan also argued that because it was unlikely that a state court would have an opportunity to consider the issues, it was the duty of the circuit judges to rehear the case and not "shrug off an erroneous decision on the grounds that, if incorrect, it will all in due course be set straight by a North Carolina court." The probable, and in his opinion distasteful, alternative to overruling the case en banc would be the gradual application of various North Carolina authorities to "construct narrow distinctions stringently circumscribing Wilson and in effect restricting it to the very facts of the particular case." In fact, the order reversed in Martin had attempted something analogous, distinguishing Wilson on the ground that the pleadings in Martin had alleged that defendant's negligence was a direct and proximate cause of the fatal injuries, instead of merely enhancing them. In both cases, however, the ultimate proximate cause of the accident was not the defect alleged by the plaintiff.

The trial court in Martin also had argued that Wilson was not "in harmony with accepted principles of North Carolina tort law." It cited five such principles that conflicted with the Wilson rationale: (1) "proximate cause of an injury is a factual question for the jury, rather than a question of law for the court;" (2) "[t]here may be more than one proximate cause of an injury;" (3) "[i]f the negligence of an actor is a proximate cause of any part of the obligation to design and produce a reasonably crashworthy vehicle." Id. at 841 (quoting Hud-dell v. Levin, 537 F.2d 726, 735 (3rd Cir. 1976)).

62. See id. at 849-850 (Adams, J., dissenting).
63. The absence of a significant producer of motor vehicles in the state suggests that diversity jurisdiction will almost surely exist, or that the suit will be brought in some other state, whose capacity to deal with North Carolina law should be no greater than ours. . . . North Carolina has not adopted a referral statute permitting certification of a controlling question of stale law to the North Carolina Supreme Court. . . . A case is not likely to generate damage claims of $10,000 or less, and no car manufacturer is apt to fail to remove when sued in a North Carolina court so long as Wilson and the panel opinion in the instant case remain dispositive.

Martin, 707 F.2d at 828 n.1 (Murnaghan, J., dissenting).

Judge Murnaghan's logic, however, may not be sound. A plaintiff wishing to go to state court could defeat diversity by joining the manufacturer's local distributor; without complete diversity, removal to the federal courts is impossible. See Strawbridge v. Curtiss, 7 U.S. (3 Cranch) 267 (1806). Instead, the lack of North Carolina decisions on crashworthiness may be due to desire by North Carolina plaintiffs' attorneys to take advantage of federal rules of discovery or jury selection. It also could have resulted from a willingness to risk that the federal courts might apply crashworthiness, rather than risk facing the traditionally conservative North Carolina courts. With Martin and Wilson firmly rejecting crashworthiness, there no longer appears to be any reason for plaintiffs' attorneys to sue in federal court.

64. Martin, 707 F.2d at 828 (Murnaghan, J., dissenting).
65. Id.
66. See Martin, 534 F. Supp. 804, 806 (W.D.N.C. 1982). Plaintiff alleged that had the gas tank not been negligently designed, the victims would have suffered only insignificant injuries; instead they were burned to death.

67. Id.
69. Id. (citing Hester v. Miller, 41 N.C. App. 509, 512, 255 S.E.2d 318, 320 (1979)).
injuries, he is liable for that part;" 70 (4) "[d]efendants' negligence, in order to be actionable, need not be the sole proximate cause of injury, nor the last act of negligence;" 71 (5) "[i]f the intervening act of a third person is reasonably foreseeable, it does not insulate a previously negligent party from liability for injuries caused by or contributed to by that previous negligence." 72

Chief Judge Phillips defended Wilson in his special concurrence. He warned against use of the "gentle pressure tactics of 'assuming' that the state courts will necessarily follow a view proclaimed by the federal court to be 'enlightened.'" 73 He argued that looking at what state courts have recently said as well as the "basic doctrinal premises they have seemed most consistently to hold" 74 is a better means of forecasting state law than extrapolating the trend of "enlightened" law in other jurisdictions. Thus, he believed that the only valid criticism of Wilson would be one that challenged the rationality of the assumptions Wilson made based on "indicators" in North Carolina law. 75 This view, however, puts the critic at a disadvantage since the Wilson court did not reveal its assumptions, and the district court decision it summarily affirmed was not published. The only discernible "indicator" in Wilson was the reference to North Carolina's rejection of strict liability in Smith. 76 Now, of course, there is Chief Judge Phillips' special concurrence.

Chief Judge Phillips cited in his Martin concurrence three "indicators" supporting the assumption in Wilson that North Carolina would reject crashworthiness. "First and foremost is the fact that North Carolina has at this late date not yet joined the crashworthiness 'trend.'" 77 The lack of an appropriate case to consider the doctrine was dismissed as a minor obstacle, as "[c]ourts minded to join 'enlightened trends' in decisional law have no difficulty reaching out in 'near' cases to join up." 78

This argument is not persuasive. A court unsure about the wisdom of an innovative rule of law may avoid reaching it until the experience of other jurisdictions has cast some light upon the subject, embracing the rule only when careful examination of other precedent indicates it to be just and prudent. This is exactly what North Carolina did in abandoning the requirement of privity

70. Id. (citing Wise v. Vincent, 265 N.C. 647, 652, 144 S.E.2d 877, 881 (1965)).
71. Id. at 807 (citing Batts v. Faggart, 260 N.C. 641, 133 S.E.2d 504 (1963); Richardson v. Grayson, 252 N.C. 476, 113 S.E.2d 922 (1960)). See also Hester v. Miller, 41 N.C. App, 509, 512, 255 S.E.2d 318, 320 (1979).
73. Martin, 707 F.2d at 825 (Phillips, C.J., concurring specially).
74. Id.
75. Id.
76. See supra note 50 and accompanying text.
77. Martin, 707 F.2d at 826 (Phillips, C.J., concurring specially).
78. Id.

To dismiss this with the suggestion that it has not been possible to join because an appropriate case has not yet been presented and to forecast that—because of diversity's refuge—it will not likely be presented in the future denigrates the wit both of the North Carolina courts and of counsel practicing in those courts.

Id.
in products liability negligence claims.\textsuperscript{79} Furthermore, the converse of Chief Judge Phillips' argument is that a court set on rejecting a doctrine will do so, even though only in dictum.\textsuperscript{80} Thus, if North Carolina actually preferred \textit{Evans}, there should be state court decisions "joining-up" with that unenlightened trend.

Chief Judge Phillips advanced \textit{Miller v. Miller} \textsuperscript{81} as an example of a case in which the "join-up" easily could have been accomplished.\textsuperscript{82} In \textit{Miller} the North Carolina Supreme Court held that, as a matter of law, the failure to wear a seat belt, absent special circumstances, was not contributory negligence. Using \textit{Miller} to demonstrate North Carolina's unwillingness to accept crashworthiness in 1983 is inappropriate for several reasons. First, \textit{Miller} was decided only nine days after \textit{Larsen}, which makes it highly unlikely that the crashworthiness rationale was considered. Second, \textit{Miller} was not a products liability case; it dealt with contributory negligence in an action against the driver of an automobile for personal injuries suffered by a passenger.\textsuperscript{83} Third, to "reach out" and impose a duty on manufacturers to use reasonable care not to expose consumers to an unreasonable risk of injury in a collision, the \textit{Miller} court would have had to impose an analogous duty on the public to fasten their seat belts whenever riding in an automobile. This would have denied plaintiff recovery by imposing a standard of care almost universally disregarded, a result the court was anxious to avoid.\textsuperscript{84} This failure of the "reasonable man" to recognize the duty to wear seat belts was the true basis of the court's refusal to impose such a duty. That the omission actually did not cause the collision was icing on the cake.\textsuperscript{85}

Chief Judge Phillips' second "indicator" was North Carolina's reluctance to adopt such liberal tort theories as strict liability and comparative negligence.\textsuperscript{86} This analogy is questionable, however, because the crashworthiness theory does not dispense with negligence, as does strict liability, nor does it seek to apportion fault between the defendant and the plaintiff. Instead, crashworthiness merely sharpens the focus on proximate cause, recognizing two distinct proximate causes instead of one, and imposes the familiar liability of a joint tort-feasor. Thus, the measure of recovery is not changed; it is only spread more equitably among the blameworthy.

The last "indicator" suggested by Chief Judge Phillips consisted of "the guidance to be had from recent doctrinal expressions by North Carolina's highest court."\textsuperscript{87} Judge Phillips conceded that crashworthiness is in large part a question of proximate cause, and that North Carolina generally considers

\textsuperscript{80} See Bulliner, 54 F.R.D. at 482. See also supra note 26.
\textsuperscript{81} 273 N.C. 228, 160 S.E.2d 65 (1968).
\textsuperscript{82} Martin, 707 F.2d at 826 (Phillips, C.J., concurring specially).
\textsuperscript{83} Miller, 273 N.C. at 229-30, 160 S.E.2d at 67.
\textsuperscript{84} See id. at 237-38, 160 S.E.2d at 73.
\textsuperscript{85} Id. at 237, 160 S.E.2d at 73.
\textsuperscript{86} Martin, 707 F.2d at 826 (Phillips, C.J., concurring specially).
\textsuperscript{87} Id.
proximate cause a question for the jury. He contended, however, that conceptually "there is strong indication that the North Carolina Supreme Court presently identifies the 'first impact' as the critical and sole one for proximate causation—hence tort liability—analysis."\(^8\) Such an analysis would preclude the crashworthiness defect as a valid proximate cause of injuries.\(^9\) Judge Phillips stated that the Miller court had relied on this analysis when it determined that the failure to fasten seat belts was not contributory negligence per se.\(^0\)

The difficulty of apportioning damages also was advanced by Chief Judge Phillips as an alternate ground for the Miller decision.\(^9\) This characterization minimizes the importance of the Miller court's devoting the first seven pages of its opinion to resolving whether "the occupant of an automobile [has] a duty to use an available seat belt whenever [the car] is operated on a public highway."\(^9\) It was only after answering that question in the negative that the Miller court added: "It would be a harsh and unsound rule which would deny all recovery to the plaintiff, whose mere failure to buckle his seat belt in no way contributed to the accident, and exonerate the active tort-feasor but for whose negligence the plaintiff's omission would have been harmless."\(^9\) The Miller court gave several other minor justifications, then discussed at length the difficulties of apportioning damages between a negligent defendant and contributorily negligent plaintiff, which it deemed a problem that "cannot be dismissed lightly."\(^9\) The court, however, did not base its decision on that ground. Rather, the court espoused it as one of a number of factors reinforcing the dispositive holding that the customary conduct of the reasonably prudent man does not include wearing his seat belt.\(^9\)

Although Chief Judge Phillips' reasoning was faulty in applying his three "indicators," he was correct when he said that the first step in predicting the future of the law in a jurisdiction is to look to the present status of the general state law. Thus, if the crashworthiness theory is compatible with North Carolina products liability tort law, federal courts are justified in predicting that North Carolina would accept the crashworthiness doctrine.

In North Carolina a products liability claim sounding in tort must include the same elements as any negligence claim: (1) evidence of a standard of care owed by the reasonably prudent person in similar circumstances; (2) breach of that standard of care; (3) injury caused directly or proximately by the breach; and (4) loss because of the injury.\(^9\) Thus, for the crashworthiness theory to be

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88. Id. at 827.
89. Id.
90. Id.
91. Id.
92. Miller, 273 N.C. at 230, 160 S.E.2d at 68.
93. Id. at 237, 160 S.E.2d at 73.
94. Id. at 238-40, 160 S.E.2d at 73-74.
95. Id. at 238, 160 S.E.2d at 73.
compatible with North Carolina law, each of these essential elements must be established.

The manufacturer's standard of care under the crashworthiness theory is compatible with the duty of care under North Carolina products liability law. In the leading case of Corprew v. Geigy Chemical Corp.97 the North Carolina Supreme Court quoted this definition with approval:

Since the liability is to be based on negligence, the defendant is required to exercise the care of a reasonable man under the circumstances. His negligence may be found over an area quite as broad as his whole activity in preparing and selling the product. He may be negligent first of all in designing it, so that it becomes unsafe for the intended use. He may be negligent in failing to inspect or test his materials, or the work itself, to discover possible defects, or dangerous propensities.98

The duty to eliminate any unreasonable risk to the passengers in the event of collision is not dissimilar to this duty to inspect and test the work and materials to discover possible defects or dangerous propensities.

Even if there is no duty in North Carolina to eliminate unreasonable risks of injury to passengers in the event of a collision, there is such a duty under federal law. The National Traffic and Motor Vehicle Safety Act99 was passed in 1966, shortly after the decision in Evans, and declared the necessity of establishing motor vehicle safety standards.100 "Motor vehicle safety" was defined as:

the performance of motor vehicles or motor vehicle equipment in such a manner that the public is protected against unreasonable risk of accidents occurring as a result of the design, construction or performance of motor vehicles and is also protected against unreasonable risk of death or injury to persons in the event accidents do occur, and includes nonoperation safety of such vehicles.101

The intent of the Act was to authorize the creation of standards that would impose a duty of care on the auto industry identical to that required under the crashworthiness theory. The standards are binding on the states102 and specify the testing and degree of protection required of the automobile manufacturer. These standards began coming out in 1971 and regulated, among other things, occupant impact with the interior of the passenger compartment,103 protection of the driver from injury caused by the steering column,104 reten-

98. Id. at 491, 157 S.E.2d at 102-03 (quoting W. Prosser, Law of Torts § 665 (3rd ed. 1964)).
104. Id. § 571.203 (protection for driver from impact with steering mechanism), § 571.204 (steering control rearward displacement).
tion of passengers within the vehicle in a collision,\textsuperscript{105} and seatbelts and child restraints.\textsuperscript{106} North Carolina indicated its support of this effort by enacting the Vehicle Equipment Safety Compact.\textsuperscript{107} Somewhat surprisingly, the manufacturers themselves acknowledge this responsibility to protect the passenger in their advertising, touting efforts to eliminate risks to the passenger upon impact.\textsuperscript{108}

Thus, there is ample evidence that it is reasonable to require automobile manufacturers to eliminate unreasonable risks of injury in the event of a collision, and that the duty is not incompatible with the North Carolina products liability standard of due care.

The second essential element in a products liability tort action is a breach of the duty owed. This could be found in any failure of the manufacturer to eliminate unreasonable risk of injury.\textsuperscript{109}

The third essential element is that the injury be caused directly or proximately by the breach. Thus, the crashworthiness defect must be established as a proximate cause of the injuries sustained. Logically, it is not accurate to say that one event can be the sole proximate cause for all the injuries suffered in a crashworthiness situation. It is accurate, however, to say that the initial impact is the sole proximate cause of the injuries which would have been suffered in the crash absent the crashworthiness defect. The initial impact is also a proximate cause of the enhancement of injury suffered as a result of the crashworthiness defect, since there would be no injuries at all without that initial impact. By the same token, however, the crashworthiness defect is also a proximate cause of the enhancement of injuries, for without the defect the enhancement of injuries would not have occurred. The cause of the collision and the crashworthiness defect would be concurrent proximate causes, and the manufacturer and the person responsible for the collision would be joint tortfeasors with regard to the enhancement of injuries. It cannot, however, accurately be said that the initial impact is the sole proximate cause of the enhancement of injuries, because it alone could not have caused the enhancement.

To deny that the crashworthiness defect is a proximate cause of enhancement of injuries imposes complete liability on the person responsible for the initial collision, regardless of how harmless it would have been in the absence of the manufacturer's negligence. When the other driver is without insurance or appreciable assets, denial of the manufacturer's liability for its negligence

\textsuperscript{105} \textit{Id.} § 571.206 (door locks and door retention systems), § 571.210 (seat belt assembly anchorages).

\textsuperscript{106} \textit{Id.} § 571.207 (seating systems), § 571.209 (seat belt assemblies), § 571.213 (child restraint systems).

\textsuperscript{107} N.C. GEN. STAT. § 20-183.13 (1983).

\textsuperscript{108} General Motors has been running television advertisements in North Carolina touting their continuing efforts to improve the crashworthiness of their automobiles (over 150 new automobiles demolished in crash tests).

\textsuperscript{109} In \textit{Larsen} the breach was the improper design of the steering column, a solid column which projected beyond the wheel base in such a way as to present an obvious danger of rearward displacement towards the driver in an accident.
would leave the plaintiff without compensation for his injuries, even those attributable to the crashworthiness defect. Chief Judge Phillips stated that this harsh result was required by the "in no way contributed to the accident" language in Miller. This interpretation of Miller, however, is refuted by that court's subsequent language:

Furthermore, it is safe to assume that, if an unbelted plaintiff sustained an injury in an automobile accident, he would also have suffered some injury—albeit minor—from buffeting even had he been wearing his seat belt. Therefore, since plaintiff could have suffered some injury as a result of the occurrence which resulted solely from the defendant [driver]'s negligence, defendant's plea of contributory negligence would not be good as to those injuries.

Therefore the North Carolina Supreme Court, rather than using "purely conceptual [analysis] . . . identifying the 'first impact' as the critical and sole one for proximate causation," has given a strong indication that it would use a concurrent proximate cause analysis similar to that advanced above.

This indication was reinforced in the 1980 North Carolina Supreme Court case of City of Thomasville v. Lease-Afex, Inc., a products liability case actually considering the enhancement of damages allegedly caused by negligent design. Defendant installed a fire suppression system on a bulldozer used by plaintiff at a sanitary landfill. The bulldozer caught fire and was badly damaged when the fire suppressant system failed to operate. The court reversed summary judgment for defendant on the negligent design and warranty claims, holding that if the system had failed to function properly, it must have "caused at least some of the damage to plaintiff's bulldozer." Thus, recognition of the crashworthiness defect as a proximate cause of the enhancement of damages is consistent with North Carolina products liability law.

The last element in a negligence cause of action is that there be loss because of the injury. The question is not so much whether there was damage as how to determine what part of the damage is attributable to each cause. It would be difficult in many cases to differentiate between damage solely due to the original impact and damage due to enhancement of injuries caused by the crashworthiness defect. In Miller the court addressed the problem, and noted that the difficult task of apportioning damages already was performed by North Carolina courts in applying the doctrine of "avoidable consequences." This doctrine imposes the duty on a plaintiff to minimize the injuries caused by another; the plaintiff's failure to do so will defeat his recov-

111. Miller, 273 N.C. at 238, 160 S.E.2d at 73.
112. Martin, 707 F.2d at 827.
113. 300 N.C. 651, 268 S.E.2d 190 (1980).
114. Id. at 657, 268 S.E.2d at 195. This case is not a complete parallel to the crashworthiness situation as there is no dispute that the "standard of care of a reasonably prudent fire suppression system manufacturer is to manufacture a system which functions properly." Id. at 656, 268 S.E.2d at 194.
ery to the extent of the resulting aggravation of injuries.\textsuperscript{116} This aggravation of damages often cannot be calculated with certainty, and in a close case a court may rightly refuse to allocate damages between the plaintiff and defendant.\textsuperscript{117} When the allocation is between two defendants, however, there is no reason not to hold them jointly and severally liable casting the burden on each to prove what part of the damages is not allocable to his negligence. This treatment of damages is consistent with the concern for the plight of the worthy plaintiff voiced in \textit{Miller}.\textsuperscript{118} Similarly, the Court in \textit{Lease-Afex, Inc.} displayed no reluctance to allow damages when it would be hard to apportion them between the causes of the injuries.\textsuperscript{119} Thus, damages in a crashworthiness cause of action are acceptably ascertainable under North Carolina law.

It appears that because of the compatibility of the crashworthiness doctrine with North Carolina products liability law, North Carolina would accept the crashworthiness theory. Moreover, it is unlikely that North Carolina courts will have the opportunity to rule on the issue. Thus, it is critical that the divided federal courts in North Carolina have a clear and well-reasoned precedent to follow. \textit{Martin v. Volkswagen of America, Inc.} is particularly disappointing in this respect. Thorough analysis of relevant North Carolina law reveals that the arguments advanced by those courts predicting the rejection of crashworthiness are not well-grounded, while the arguments for its acceptance are compelling.

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\textbf{J. Patrick McLaughlin}

\textsuperscript{116} \textit{Id.}
\textsuperscript{117} \textit{Id.} at 240, 160 S.E.2d at 74.
\textsuperscript{118} \textit{Id.} at 238, 160 S.E.2d at 273.
\textsuperscript{119} \textit{Lease-Afex, Inc.}, 300 N.C. at 657, 268 S.E.2d at 195.