Florida's Motor Vehicle Crashworthiness Enhanced Injury Doctrine: "Wanted Dead or . . ."

Larry M. Roth
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INTRODUCTION

Much has been written over the last decade about the crashworthiness rule, or second collision theory, principally in motor vehicle crashes. Although the Florida Supreme Court recognized the application of the crashworthiness doctrine in automobile products liability cases in its 1976 ruling in *Ford Motor Co. v. Evancho*, the scrutiny acutely turned to this legal concept as a result of the 2001 Florida Supreme Court decision in *D'Amario v. Ford Motor Co.*

The Court's ruling in *D'Amario* took a quantum judicial leap from *Evancho*. The Florida Supreme Court held in *D'Amario* that for an enhanced injury or second collision theory, factual circumstances leading to the first injury, crash, or impact could not be placed into evidence, for the purposes of diminishment or apportionment of damages by comparative fault, to the benefit of the manufacturer. The *D'Amario* decision effectively eliminated from determination the pro rata responsibility for injury damages under the Supreme Court's earlier ruling in *Fabre v. Marin*. Accordingly, under *D'Amario*, although the Court also held that a manufacturer could not be liable for any injuries or damages caused by the first collision tortfeasor or the first crash cause in a single vehicle crash, it was only the injuries received by the plaintiff *over and above* those caused by that first collision, or first impact, for which a motor vehicle manufacturer was liable for and were caused by the crashworthiness defect. That is, the enhanced injuries would not have occurred *but for* the lack of crashworthiness defect. The Florida Supreme Court adopted what was then, and still is today, a minority position taken by courts across the country.

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2. 327 So. 2d 201 (Fla. 1976).

3. 806 So. 2d 424 (Fla. 2001).

4. *id.* at 439.

5. 623 So. 2d 1182 (Fla. 1993).

6. *D'Amario*, 806 So. 2d at 439–44.

7. *id.*

8. *id.* at 441–42.
All this will be further discussed below, for it also sets the legal table for the arguments advanced in this article. That is to say, the crashworthiness enhancement of injury doctrine has become a relic of the past. In the practical day-to-day battles in the courtroom, evidentiary proof of enhanced injury in product’s motor vehicle crashworthiness cases has been merely relegated to either a medical examiner, biomechanic, biomedical engineer, or some other injury mechanism expert with some credentials. These expert witnesses simply testify that but for the alleged defect (and if necessary, established by another plaintiff’s liability expert) the plaintiff would not have sustained brain injury, post-crash fire burns, paralysis, or even death. This is an easy burden of proof to establish in the courtroom, particularly in Florida courts where previously only the Frye doctrine was recognized although the Daubert standard will soon apply. In these instances, it is up to the defense attorney to undermine that expert opinion with the defendant’s theory of what happened. These theories usually include severity of the crash, state of the art as to the alleged component defect, or that the injury would have occurred in any comparable vehicle and, thus, there was no enhanced or increased injury due to any alleged lack of crashworthiness in the product.

A dwindling number of minority states use the crashworthiness enhanced injury doctrine in the same way as Florida. This article proposes replacing it with a new burden or standard of proof—thereby eliminating the “crashworthiness” doctrine as we have known it for four decades. The doctrine merely becomes part of a fault concept consistent with Florida legislatively establishing a pure apportionment of fault even in crashworthiness cases. It is no longer a stand-alone legal fiction. In 2011, the Legislature took a position that directly overruled the D'Amario decision on apportionment of fault.

The newly proposed fault concept will apply to what now appears to be an antiquated legal fiction upon which the crashworthiness doctrine was created in the 1960s. It recognizes that the days of the enhancement or increased injury doctrine, to the exclusion of considering the first collision involvement, is a judicial fossil.

Florida is now a complete apportionment of fault state. Every party and non-party to a motor vehicle crash is responsible for his or her own fault of the overall harm. Contribution is gone, as well as joint and several liability.

9. Frye v. United States, 293 F. 1013 (D.C. Cir. 1923) (holding that expert testimony concerning scientific analysis must be sufficiently established to have gained general acceptance in the particular field to which it belongs). The 2013 Florida Legislature passed legislation that a modified Daubert standard apply to expert witnesses. Opinions must be based on (1) sufficient facts, (2) reliable scientific principles and methods, and (3) the expert witness has applied principles and methods to the facts of the case. H.B. 7015, 2013 Leg., Reg. Sess. (Fla. 2013); 40 FLA. BAR NEWS 20 (May 15, 2013) (eff. July 1, 2013). At the state level, the author does not think this will make much practical difference. Trial judges simply do not like to deal with this issue.


11. It appears that the term “crashworthiness” was first used in this country by William Stieglitz referring to the ability of the human body to withstand impact. See W. James Foland, Enhanced Injury: Problems of Proof in “Second Collision” and “Crashworthy” Cases, 16 WASHBURN L.J. 600, n.2 (1977) (citing W. Stieglitz, Note on Crashworthiness (Institute of Aeronautical Sciences) No. 266 (1950)).


13. Wells, supra note 1, at 16.

This article will define and address the crashworthiness/enhanced injury doctrine and how it evolved in Florida. This article will also discuss how the separate and distinct causes of action for a second collision enhanced or increased injury claim can and should be handled by the courts in Florida by abolishing this common law court created doctrine. Additionally, this article will address the evidentiary treatment of injuries that were allegedly enhanced as a result of a claimed defect in the motor vehicle, but which did not cause the initial crash, and only came into play once the crash occurred.

1. The Genealogy of the Crashworthiness Doctrine

The legal concept of a separate cause of action for a motor vehicle manufacturer's failure to reasonably protect an occupant or passenger from injury is a relatively recent addition to the full life of the common law. Holmes' "stop, look and listen" duty for motor vehicle operators at railroad crossings demonstrated how enigmatic an internal combustion engine was to his First Order legal principles. In *MacPherson v. Buick Motor Co.*, New York Court of Appeals Judge Benjamin Cardozo first enunciated a defect theory for automobile cases as to their construction. Yet, courts initially rejected the notion that an automobile manufacturer had a separate duty to design vehicles so that people would not be injured in crashes.

The common law recognition of a crashworthiness theory ultimately paralleled federal legislation regulating motor vehicle safety in the mid-1960s with the creation of a national regulatory safety agency called the National Highway Traffic Safety Administration (NHTSA). Regulatory standards were first enacted to set guidelines for passenger protection in motor vehicles when they were involved in

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16. Id.

17. See Wells, supra note 1, at 16.


   In such circumstances it seems to us that if a driver cannot be sure otherwise whether a train is dangerously near he must stop and get out of his vehicle, although obviously he will not often be required to do more than to stop and look. It seems to us that if he relies upon not hearing the train or any signal, and takes no further precaution he does so at his own risk. *Id.* at 70 (quoted in Richard A. Posner, *The Essential Holmes* 273 (1992)).


20. The main case which held that a manufacturer was not liable for a defect which did not cause the underlying crash, but caused some type of enhanced or increased injury was *Evans v. General Motors Corp.*, 359 F.2d 822 (7th Cir.), cert. den., 385 U.S. 836 (1966). The case involved Indiana law. *Id.* This was ultimately overruled by the Seventh Circuit. See Huff v. White Motor Corp., 565 F.2d 104 (7th Cir. 1977).

crashes. They were primitive at first. However, these were not design standards but performance requirements. As a matter of national public policy the Federal government began to regulate motor vehicle safety. Within these regulations were requirements for the interior safety of passenger cars to help minimize the risk of injury to occupants once a collision occurred. These standards expanded as vehicles became more sophisticated, and began to regulate all occupant position seatbelts, airbags, roof strength, side door latch containment, vehicle seatbelt control devices, front windshield retention, and a host of other increasingly stringent crash protection requirements.

In 1968, *Larsen v. General Motors Corp.* first articulated this new common law principle of crashworthiness as a tort, following the federal regulatory scheme of post-crash safety requirements being implemented—although, neither the federal legislation nor the safety standards themselves created any private causes of action. *Larsen* held:

No rational basis exists for limiting recovery to situations where the defect in design or manufacture was the causative factor of the accident, as the accident and the resulting injury, usually caused by the so-called ‘second collision’ of the passenger with the interior part of the automobile, all are foreseeable. Where the injuries or enhanced injuries are due to the manufacturer’s failure to use reasonable care to avoid subjecting the user of its products to an unreasonable risk of injury, general negligence principles should be applicable.

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23. The Federal Motor Vehicle Safety Standards (FMVSS) establish certain requirements for motor vehicles in terms of crash protection. These are found in the 200 and 300 series of the Regulations. The 100 series generally deals with crash avoidance. For example, FMVSS 208 has specific injury criteria associated with it. The regulation also now involves airbags. Under this standard, in barrier frontal collision tests, belted front seat anthropomorphic dummies (ATD) should not have a head injury criteria (HIC) in excess of 1,000 for duration of 3 milliseconds. There are also injury criteria that must be met for both chest and femur loading. Also, for consumer information purposes the government under the New Car Assessment Program (NCAP) tests vehicles at 35mph in frontal barrier tests. However, these are not required regulations. There is a 1/3 increase of energy in a 5mph barrier collision differential between 30 mph and 35 mph and thus it is much more severe. The government rates vehicles in these crash tests at 35 mph under the NCAP program in terms of how they perform on various injury criteria numbers, such as head injury criteria.
25. See id.
27. 391 F.2d 495 (8th Cir. 1968). The Second Restatement was promulgated before the *Larsen* case came out in 1968. *RESTATEMENT (SECOND) OF TORTS* § 402A (1965) Also, *Evans v. General Motors Corp.*, which did not hold the manufacturer potentially liable for a lack of crashworthiness in 1966, was also before the Second Restatement. See Foland, *supra* note 11, at 601–03.
[S]uch manufacturer is under a 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.28

Under Larsen, an automobile manufacturer had to foresee that crashes would occur to their motor vehicles and, consequently, the manufacturer then had a duty to make its vehicles reasonably safe for the occupants once that first accident or impact occurred.29

A watershed development to this new common law concept shortly followed in Huddell v. Levin.30 This case further expanded the Larsen theorem, and clearly established that a manufacturer would be liable when the design of the motor vehicle increased, made greater, or enhanced a passenger’s injury in a crash from what was caused by the first accident of a vehicle to vehicle, vehicle to object or occupant to some interior component of the vehicle, for example.31 It was just not that the occupant was injured, but that he or she suffered an increased harm due to a defect in a vehicle crash protection component after the first accident occurred. For a jury to make this increased or enhanced injury determination, Huddell


29. The theory of crashworthiness is based upon a duty, or imposition of potential liability against a motor vehicle manufacturer because car accidents are foreseeable. What is a reasonably foreseeable occurrence is, of course, a less than certain matter. Nevertheless, the rationale for imposing liability against an automobile manufacturer for the second collision is due to the fact that they must take into account that automobile accidents will occur. See 22 AM. LAW. PROD. LIAB. 3D § 95:8, at 19; see also Huddell v. Levin, 537 F.2d 726 (3d Cir. 1976) (describing the crashworthiness law of New Jersey); Culpepper v. Volkswagen of Am., Inc., 33 Cal. App. 3d 510 (Cal. Ct. App. 1973); Kern v. General Motors Corp., 724 P.2d 1365 (Colo. Ct. App. 1986); Freiericks v. General Motors Corp., 336 A.2d 118 (Md. 1975).

The Larsen court also stated the following:

Accepting, therefore, the principle that a manufacturer's duty of design and construction extends to producing a product that is reasonably fit for its intended use and free of hidden defects that could render it unsafe for such use, the issue narrows on the proper interpretation of 'intended use'. Automobiles are made for use on the roads and highways in transporting persons and cargo to and from various points. This intended use cannot be carried out without encountering in varying degrees the statistically proved hazard of injury-producing impacts of various types. The manufacturer should not be heard to say that it does not intend its product to be involved in any accident when it can easily foresee and when it knows that the probability over the life of its product is high, that it will be involved in some type of injury-producing accident.

29. Larsen, 391 F.2d at 501–02.
30. 537 F.2d 726 (3d Cir. 1976).
31. "Most jurisdictions have adopted" the position of allowing or holding a manufacturer potentially liable for a defect design which "produces injuries but not the accident in which the injuries were sustained." 22 AM. LAW. PROD. LIAB. 3D, supra note 29, at 18.
established an evidentiary burden of proof standard for plaintiffs to meet. Other similar court decisions, such as the so-called Fox-Mitchell line of cases, coming on the heels of Huddell, nevertheless differed on the burden of proof issue and evidentiary analysis. There followed, which continues still today, a fierce debate over how a litigant proves an enhanced or increased injury case, who has the initial burden, and what happens if the first injury cannot be separated from the second or so-called enhanced injury.

Of course, this new cause of action, now regularly known as crashworthiness law, at least in form did not create any absolute liability. The Larsen Court held that a manufacturer is not an insurer and therefore, does not have to make an injury-proof vehicle. In reality, however, to the manufacturer these judicial platitudes were meaningless words offered in a vacuum of legal niceties. This so-called protection for the manufacturer certainly did not chill the filing of lawsuits. Each car crash, in turn, where there were serious injuries and no insurance to go after from the original tortfeasor, then became a potential motor vehicle crashworthiness cause of action.

Florida arrived late to this crashworthiness party. After the Florida Supreme Court's 1976 adoption of section 402A of the Restatement (Second) of Torts strict liability cause of action in West v. Caterpillar Tractor Co., it was only a matter of time before crashworthiness issues would be raised as a new common law cause of action. In Ford Motor Co. v. Evancho, the Florida Supreme Court enunciated a negligence cause of action that created liability for a motor vehicle's lack of crashworthiness. The Evancho decision did little original analysis, in essence only quoting at length from the earlier Larsen decision.

32. This is addressed in more detail later in this article. However, the issue of who has the burden of proof in establishing that the alleged defective product "enhanced the injuries sustained in an accident" has resulted in a jurisdictional split. Id. There are various nuances to a general rule that either the plaintiff is or is not required to prove what would have been the enhanced injuries had an alternative, safer design been used. Id. Some states require only that the plaintiff show that the alleged defect was a "substantial factor" in causing the alleged enhanced injury. See generally id. at 20.


35. Larsen, 391 F.2d at 503. The Larsen court stated as follows:

We do agree that under the present state of the art an automobile manufacturer is under no duty to design an accident-proof or fool-proof vehicle or even one that floats on water, but such manufacturer is under a 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.

Id. at 502.

36. For review of what had been labeled as the products liability "crisis," see DAVID G. OWEN, JOHN E. MONTGOMERY & W. PAGE KEETON, PRODUCTS LIABILITY AND SAFETY (3d ed. 1996); see Wells, supra note 1, at 14.

37. The number of car crashes each year, and resulting fatalities and injuries, are staggering. Based upon field accident data in NHTSA databases, there are in excess of 7.6 million car crashes, approximately 35,000 which are fatal, involving 11.7 million occupants, with injuries of 2.6 million, and seriously injured occupants at 105,000 plus. See DAVID C. VIANO, ROLE OF THE SEAT IN REAR CRASH SAFETY 7 (S.A.E. 2002).

38. 336 So. 2d 80 (Fla. 1976).

39. Evancho, 327 So. 2d 201, 204 (Fla. 1976) (seatback claim).
In so holding, however, the Larsen court recognized that manufacturers are not insurers and are under no duty to design a crashworthy, accident-proof, or foolproof vehicle. We adopt the Larsen view, holding that the manufacturer must use reasonable care in design and manufacture of its product to eliminate unreasonable risk of foreseeable injury.\footnote{Id.}

Yet, the Florida Supreme Court neither addressed the already existing Huddell, or opposing Fox-Mitchell analysis on evidentiary burdens of proof for proving an enhanced injury from a causation standpoint. The court noted only the black letter law principle for a crashworthiness theory of action under Florida’s judicial system. The next step came in Nicolodi v. Harley-Davidson Motor Co.,\footnote{Nicolodi v. Harley-Davidson Motor Co., 370 So. 2d 68, 71 (Fla. Dist. Ct. App. 2d 1979) (motorcycle crashworthiness). The concept of crashworthiness liability for a product manufacturer has also been extended beyond that of motor vehicles. They have included things from airplanes to riding lawnmowers. In Florida, the concept was applied to a motor boat situation. See Rubin v. Brutus Corp., 487 So. 2d 360 (Fla. Dist. Ct. App. 1st 1986) (pleasure boat); see generally McGee v. Cessna Aircraft Co., 188 Cal. Rptr. 542 (App. 1983) (airplane); Tafoya v. Sears-Roebuck & Co., 884 F.2d 1330 (10th Cir. 1989) (riding lawnmower); Hillrichs v. Aveco Corp., 478 N.W.2d 70 (Iowa 1991) (grain harvester); Masterman v. Veldman’s Equip., Inc., 530 N.E.2d 312 (Ind. Ct. App. 1988) (snow plow); Smith v. Ariens Co., 377 N.E.2d 954 (Mass. 1978) (snowmobile); Roe v. Deere & Co., 855 F.2d 151 (3d Cir. 1989) (agricultural tractor); Bruce v. Martin-Marietta Corp., 418 F. Supp. 829 (W.D. Okla. 1975) (airplanes).} when Florida’s Second District Court of Appeal extended Evancho to include motorcycles. Thereafter, the Florida Supreme Court extended a strict liability application to crashworthiness cases in its Ford Motor Co. v. Hill opinion.\footnote{404 So. 2d 1049, 1051-52 (Fla. 1981) (applying strict liability theory to crashworthiness claim). In Florida, the Standard Jury Instructions do not specify whether a strict liability instruction should be used for the consumer expectation test, or the risk-benefits analysis. However, in Soule v. General Motors Corp., 882 P.2d 298 (Cal. 1994), the court held that the risk-benefit analysis should be used in a situation involving crashworthiness where the expectation is beyond the everyday experience of a user.}

All of these Florida based pronouncements were only theoretical and esoteric. From a comparative fault standpoint they did not deal with the reality of establishing guidelines or principles of how a lawyer was to try a crashworthiness case. Nor did they deal with how judges or juries were to figure out what an enhanced injury was, the causation of it, and what to do about the underlying first accident and the so-called first injury, if any.\footnote{Courts routinely use the interchangeability of the terms crashworthiness, injury enhancement and second collision. See generally Caiazzo v. Volkswagenagen, A.G., 647 F.2d 241, 243 n.2 (2d Cir. 1981); Bolm v. Triumph Corp., 305 N.E.2d 769, 772 (N.Y. Ct. App. 1973); Scesc v. Volkswagenagen, A.G., 648 F.2d 833, 838 n.7 (3d Cir. 1981); Olsen v. United States, 521 F. Supp. 59, 63 (E.D. Pa. 1981). “Courts should abandon the ‘second collision’ jargon. Enhanced injury theory should be the product of thoughtful legal analysis and not the overloading of other legal liability concepts.” Thomas V. Harris, Enhanced Injury Theory: An Analytic Framework, 62 N.C. L. REV. 643, 650-51 (1984).}

In Florida products liability “crashworthiness” trials, the Evancho and Hill decisions were always cited, usually by both sides, but there was a practical evidentiary gap between their applications. Plaintiffs would argue in crashworthiness cases that the evidentiary and proof analysis should only begin
once the motor vehicle crash had occurred, and anything to do with why the crash happened in the first instance was irrelevant. Thus, *arguendo*, what transpired up to that point of the first collision by the tortfeasor driver would be without relevance to any enhanced injuries, and otherwise prejudicial. Unfortunately, the reality of life in courtroom trials was that many of these lawsuits arose from drunk driving incidents where the crashworthiness litigation was likely generated by the absence of any, or adequate, insurance covering the Driving While Intoxicated (DWI) tortfeasor, which were likely exceptions to coverage in many situations, except for the practicality of minimum coverages.

On the other hand, attorneys for the vehicle manufacturers argued that the circumstances of the underlying crash, whether a single or multiple vehicles, could not be excluded from the jury’s decision-making process. The defense argued that the nature and circumstances surrounding the first crash were what caused the injuries. That is, the initial crash or first accident caused the injuries—they were not enhanced. If comparative fault, even in strict liability cases, was to be applied, as *West* held, then what fault occurred in the so-called first collision was essential in evaluating how and why any injury occurred—enhanced or not.

These conflicting positions highlighted the critical underpinning of any crashworthiness cause of action—the injury. Defendants argued that circumstances and consequences of the first collision had to be considered in order to determine whether the injury claim was enhanced or increased, and whether without the initial collision there could not be a second collision. As an example, in a high speed multiple vehicle crash that resulted in a post-crash fuel fed fire (i.e., the gas tank exploded), whether a plaintiff was killed from the thermal mechanism from the fire, or whether the occupant was already dead from the severity of the crash itself before the fire began.

*Fabre v. Martin* further complicated the matter. Although not a products liability crashworthiness case, the Florida Supreme Court held in *Fabre* that all parties, even those not sued but potentially at fault, or those who had already settled, could be on a verdict form so that everyone’s pro rata percentage of fault and responsibility would be determined by the jury.

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45. *Id.*
46. For review of the crashworthiness doctrine as it was earlier applied in Florida by the plaintiffs’ attorneys, see Edward Ricci & Theresa DiPaola, *Evolution of the Automobile Crashworthiness Doctrine in Florida*, 69 FLA. B.J. 40 (1995).
47. See, e.g., Roth, *Second Collision, supra* note 1, at 22.
48. *Id.*
49. As noted, Florida had adopted the RESTATEMENT (SECOND) OF TORTS, Section 402A; *West v. Caterpillar Tractor Co.*, 336 So. 2d 80 (Fla. 1976).
51. Note: This can be partially determined by the amount of carbon dioxide (CO2) in the lungs as demonstrated on autopsy.
52. 623 So. 2d 1182 (Fla. 1993).
53. *Id.* at 1187.
defendant manufacturers were more successful in arguing that the events and parties responsible for the first crash had to be included for a jury determination of fault and, if the evidence supported it, ultimately placed on the verdict form. This in turn required all the circumstances of the motor vehicle crash event, even the so-called first collision, to be litigated in a crashworthiness case. 

Fabre and its progeny’s analysis, arguendo, seemed well suited to second collision litigation. After all, the enhanced injury concept was nothing more than apportioning out the first injury from that of the so-called increased injury harm. That is, the injury which would have been anyway, and the alleged enhanced injury which occurred afterwards. Thus, from the defense standpoint, all tortfeasors, including drunk drivers, had to be on the verdict form for the jury to apportion fault as Fabre required if supported by the evidence, and if the tortfeasors or others could be identified.55

There was little to no guidance for some time from the Florida appellate courts to help resolve how this crashworthiness evidentiary and trial procedural quandary was to be resolved, which became initially tied up through motions in limine before a trial judge. The Fabre decision gave defendants’ attorneys an upper hand in litigation. Defense attorneys could then argue that all the circumstances surrounding or involving a motor vehicle crash, including even a drunk driver, must be litigated so the jury could sort out what happened, and whether any second collision defect in the safety protection of the vehicle in fact enhanced, or made the ultimate injury worse, such as catastrophic versus non-catastrophic injury. Of course, which party should have the burden of persuasion or proof to establish the causation of the enhanced injury, if any, continued to be unclear in Florida. Stated differently, which party had to prove, or disprove, but for or more likely than not requirement the enhanced injury was due to the alleged post-crash defect. Another problem that arose for product liability trial lawyers, and ultimately the courts, was how to characterize and determine apportionment of fault if there was only a crashworthiness defect of enhanced injury alleged, and the plaintiff had not sued or had already settled with the first party tortfeasor.

Only Florida’s Third District Court of Appeal in Kidron, Inc. v. Carmona specifically addressed whether the underlying first accident causing tortfeasor, and their comparative negligence, should be considered by the jury in a crashworthiness case. Kidron was decided prior to Fabre. Yet, that court allowed into evidence the driver/plaintiff’s own fault in causing the initial accident

54. See Nash v. Wells-Fargo Guard Servs., Inc., 678 So. 2d 1262 (Fla. 1996) (noting it is the defendant’s burden to present evidence of fault of non party before jury can determine percentage of fault of that non party); Allied-Signal, Inc. v. Fox, 623 So. 2d 1180 (Fla. 1993) (tortfeasor is required to be on verdict form even though statutorily immune under Worker’s Compensation law).

55. Fabre, 623 So. 2d at 1187.

56. See Roth, Second Collision, supra note 1, at 24.

57. The but for analogy is one that is simple and easy to apply. See also Karen L. Chadwick, “Causing” Enhanced Injuries in Crashworthiness Cases, 48 SYRACUSE L. REV. 1223, 1226–27 (1998).


59. Id.
to be considered by the jury on a crashworthiness claim. The jury, according to Kidron, could apportion overall fault between the plaintiff, and in that particular case the trailer manufacturer for its design. In Kidron, the driver/plaintiff was at fault for running into the rear of a tractor/trailer that had stopped off the roadway. The crashworthiness claim against the trailer manufacturer was that it did not design or have in place a bar to prevent vehicle underride if the trailer was rear-ended by another vehicle (not a tractor trailer). There was no analytical discussion in Kidron about the difference between apportionment of fault (ultimately Fabre), and apportionment of non-enhanced and enhanced injury (necessary to crashworthiness). The court in Kidron did not say that the resultant injury or death had to be assumed, was deemed an indivisible injury, and had to be combined fault of both for which either one could be held fully liable. If the jury was separating out fault in Kidron it was only doing so in order to determine causation of the ultimate injury. There was no issue of alcohol involved in that case.

The only other case to arise pre-D'Amario was Smith v. Fiat-Roosevelt Motors, Inc. in 1977. This was also a pre-Fabre appellate case, but this time in the federal system. Although the primary issue was whether a merchandiser could be held liable under a warranty theory of crashworthiness, the court reversed a defendant's summary judgment on the issue of the enhanced injury. The Smith court stated that Florida law usually does not allow a defendant to win where an injury is indivisible and where the plaintiff could not apportion out the differences. Smith was a vehicle seatback case. In other words, under Florida’s concurrent tortfeasor law if injuries were not apportionable between the two tortfeasors, then each could be held separately liable for the entire harm. The later D’Amario case did not mention or address the Smith decision.

2. Florida Takes a Minority Position on Crashworthiness Apportionment of Fault Analysis

In 2001 the Justices of the Florida Supreme Court took a dive into these murky waters. Yet, there were perhaps only two members of the Court who, at that time, had ever tried a motor vehicle products liability case. The result was the consolidated decision in D’Amario v. Ford.
Briefly the facts: (1) *D’Amario* involved a Ford automobile driven by a drunk driver. The plaintiff was a passenger. The driver lost control and the vehicle impacted a tree. Some time elapsed after that impact and then a fuel leak caused the vehicle to catch fire. The occupant/plaintiff received burn injuries. There was a dispute as to what caused the post-collision fuel fed fire. (2) *Nash* involved the driver of a General Motors vehicle. A drunk driver in another vehicle impacted Nash’s car. As a result of that collision Nash’s head impacted the A-pillar, the post between the forward edge of the door and the edge of the windshield. Nash was killed by the impact with the pillar.

Both cases involved crashworthiness allegations that the design of the vehicles enhanced the injuries. In both cases, the plaintiff’s conduct did not contribute to the cause of the initial collision or any of the enhanced injuries. Plaintiff’s actions in both cases were in no way connected to the alleged defects which created the enhanced injury, i.e., a faulty fuel system, or a structural A-pillar which should have been designed differently. Unlike other possible crash scenarios, the Florida Supreme Court was persuaded under these facts to draw a bright line demarcation between the injury enhancing defect claim and the underlying circumstances of why the initial accident occurred in the first place, separating out the injuries between these two distinct events.

The Florida Supreme Court rendered several holdings in these consolidated cases. First, they determined the plaintiff would have the burden of proof in establishing what the enhancement was over and above the injury caused by the first accident. Although the level of evidentiary proof was not articulated or analyzed, the court resolved an otherwise unresolved issue in favor of the defense. There had been no previous Florida cases providing guidance on this
evidentiary point. Now the burden of proof to establish the enhanced or increased injury was imposed on the plaintiff. 91

Second, the court held that in crashworthiness cases the Fabre principles of comparative apportionment of fault did not apply. 92 It was even reversible error, therefore, to have had the D’Amario/Nash jury consider the causative fault of a third party tortfeasor who caused the underlying accident in these enhanced injury crashworthiness cases. 93 Accordingly, there were to be no jury instructions given on comparative fault under Fabre, and no party or non-party causing the underlying or first accident could be placed on the verdict form so that a jury might reduce the liability of the vehicle manufacturer’s crashworthiness liability by attributing comparative fault to the first tortfeasor. 94 The jury could not consider comparative fault of the circumstances causing the so-called first collision in second collision crashworthiness trials. In essence, the trial snapshot of evidence was to begin at the instant the crash or accident had occurred. This rule is exactly the rule of law plaintiffs’ attorneys, as noted above, had previously long argued to Florida trial judges in similar cases. 95 The underlying crash circumstances, why it happened and the conduct of a tortfeasor (i.e., drugs, alcohol), was not to be part of the evidentiary trial. It no longer mattered for purposes of a crashworthiness theory why the accident occurred in the first place, nor its secondary circumstances. So if the crash involved multiple vehicles, the other drivers and the circumstances of the accident would not come into evidence. 96

Third, the court held that a manufacturer could only be liable for the enhanced injury and not for any damages caused by the initial accident. 97 The court’s rationale supported its belief to keep out the first accident from evidentiary proof and liability. 98 The court apparently believed it was placing a limitation on a manufacturer’s risk exposure on the assumption they would only be liable for the enhanced, or greater made injury, allegedly caused by the crashworthiness defect, which only came into play once an initial accident occurred. 99

In reaching their decision, the Florida Supreme Court analyzed conflicting groups of decisions it characterized as the “majority” 100 and “minority” national viewpoints. 101 In adopting their policy of excluding circumstances and fault from the underlying accident for purposes of jury consideration in crashworthiness

91. D’Amario, 806 So. 2d at 441.
92. Id. at 434–35.
93. Id. at 442.
94. Id. at 440–42.
95. See Roth, supra note 45.
96. D’Amario, 806 So. 2d at 441.
97. Id.
98. Id. at 441–42.
99. Id.
100. Id. at 431. The majority of courts around the country have recognized that comparative negligence or fault is a defense even in a crashworthiness enhanced injury case. See generally Whitehead v. Toyota Motor Corp., 897 S.W.2d 684, 694 (Tenn. 1995); Montag v. Honda Motor Co., 75 F.3d 1414, 1419 (10th Cir. 1996); Hinkamp v. Am. Motors Corp., 735 F. Supp. 176, 178 (E.D.N.C. 1989), aff’d, 900 F.2d 252 (4th Cir. 1990).
cases, the Florida Supreme Court sided with the minority position. D’Amario substantially relied on a 1982 law review article, which had argued against apportionment of comparative fault for second collision cases. This law review article also asserted the impossibility of apportioning 100% of fault between all parties in crashworthiness cases if the underlying tortfeasor was included.

Additionally, to support its decisional rationale D’Amario/Nash analogized these crashworthiness/second collision cases to a medical malpractice situation which fell under the successive liability doctrine. That is, a tortfeasor is not able to bring into the motor vehicle case, or a defendant use as an affirmative defense, the medical malpractice by a healthcare provider which occurred subsequent to the original tort that landed the plaintiff in the hospital in the first place. That initial tortfeasor must bear all the damages consequences due to his or her original conduct, even if this subsequent medical malpractice made the injury worse, or caused a death. That is, the malpractice enhanced the initial injury from the first accident, i.e., increased the harm. The Court’s rationale here was that medical malpractice was foreseeable once the tortfeasor created the circumstances for sending the plaintiff to the hospital in the first place. The Court’s other analogy, within a medical malpractice corollary, was a situation where the doctor was not permitted legally to reduce subsequent malpractice liability by apportioning fault to the plaintiff, for example, by causing their own injuries in the first place (as if they were the first accident tortfeasor), or to a pre-existing disease which initially brought the victim in for medical treatment.

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102. D’Amario, 806 So. 2d at 435.
103. See Robert C. Reichert, Limitations on Manufacturer Liability in Second Collision Actions, 43 MONT. L. REV. 109, 117–20 (1982). In D’Amario, the Court stated as follows:

We agree that to automatically compare the fault of the driver in causing the accident with the fault of the automobile manufacturer for the subsequent enhanced injury would be, as Reichert explains, to confuse two different causes—the cause of the accident and the cause of the enhanced injury.

D’Amario, 806 So. 2d at 437 (citations omitted).
104. Id. at 434 (citing Reichert, supra note 103).

We must admire the courts for creating new causes of action like second collision liability to compensate those who are unfortunate enough to be harmed by others. Nevertheless, the courts must support the desirable goal of encouraging members of our society to be responsible for their own safety. By limiting manufacturer liability in second collision actions in a principled and fair manner, and requiring individuals to take affirmative action to guard against unnecessary injury, the courts will continue to serve the interests of society.

Reichert, supra note 103, at 129.
105. D’Amario, 806 So. 2d at 437.
106. Id. at 435.
107. Id.
108. Id. at 435; see e.g., Underwriters at Lloyds v. City of Lauderdale Lakes, 382 So. 2d 702, 703 (Fla. 1980); Assoc. for Retarded Citizens-Volusia, Inc. v. Fletcher, 741 So. 2d 520, 524 (Fla. Dist. Ct. App. 5th 1999).
109. See Whitehead v. Linkous, 404 So. 2d 377 (Fla. Dist. Ct. App. 1st 1981), where the reason causing the patient to seek medical care resulting in subsequent malpractice treatment was not a legal cause of that medical negligence. In Whitehead the plaintiff had attempted to commit suicide. Id. at 378. The court held the plaintiff’s own suicidal conduct was too remote to be considered a contributing legal cause of the subsequent medical malpractice. Id. at 379.
To the Florida Supreme Court, a crashworthiness second collision or enhanced injury claim was separate, distinct, and clearly divisible sequentially from the underlying first crash circumstances. There was a clear demarcation between an enhanced injury and the injury caused by the first accident, whatever that might be. The events and circumstances of an accident situation were totally separate from the subsequently caused interior component or accident impact design defect causing an enhanced injury which occurred only after the first collision was over. The Court looked at a bright line separation from first collision to second collision in a purely temporal sense. Accordingly, that first accident tortfeasor could not be used to reduce a manufacturer’s separate and distinct crashworthiness enhanced injury liability. That is presumably why the Court felt so comfortable with its successive tort/medical malpractice analogies. The second injury causation, enhanced or increased, was a different tort from the first accident cause, and the former manifested itself only subsequent in time from a sequential demarcation to the conduct which created the initial crash.

Therefore, a crashworthiness enhanced injury analysis was no different from a subsequent medical malpractice occurring after the initiation of the original tort. Although from a time sequence, the later negligence might occur hours or days after the first tortfeasor caused the accident. This analogy to a successive medical malpractice event was that the person causing an injury first sending the person to the hospital set in motion the opportunity for that malpractice, which Florida law then deemed was foreseeable. As a reverse corollary, to the vehicle manufacturer it was also foreseeable that motor vehicle crashes occur and so they would be held responsible for the consequences flowing therefrom, if a reasonably safe design was not provided to protect the occupant from the inevitable accident.

In both D’Amario and Nash, the Court at length highlighted how the manufacturers’ defense trial attorneys used the alcohol “card” to distract and confuse the juries. Quotations from the trial records were used extensively to demonstrate how alcohol intoxication by the first accident tortfeasor was argued prejudicially to highlight fault in the causation of the underlying crash that really caused the injuries. This, the Florida Supreme Court believed, confused the two juries. When too much emphasis and demagoguery was exercised to allow undue pervasive attention be given to alcohol and intoxication, the jury was unable to focus on the true issue of whether a safety defect provided reasonable safety to the occupant once an accident occurred, or if the vehicle enhanced or increased the injury from what would have been from the initial accident, but for the defect. Accordingly, the majority of Justices decided evidence of what happened to cause

110. D’Amario, 806 So. 2d at 437.
111. Id.
112. Id.
113. Id.
114. D’Amario, 806 So. 2d at 435; see also Stuart v. Hertz Corp., 351 So. 2d 703, 707 (Fla. 1977).
115. D’Amario, 806 So. 2d at 438.
116. Id. at 441
117. Id. at 440–41.
118. Id. at 440.
the motor vehicle accident to occur in the first place, i.e., alcohol, had no role in a second collision defect case, and that this first tortfeasor could not be on the verdict form under Fabre for comparative fault determination to reduce a manufacturer's liability.119

There was a dissent in D'Amario.120 Then Chief Justice Wells, joined by one other Justice, dissented and concurred.121 The concurrence was regarding quashing the District Court's reversal of the trial court's granting a new trial for plaintiff in D'Amario.122 Simply put, Justice Wells did not feel the trial judge abused its discretion by granting a new trial, as the Second District had concluded. That new trial was ordered because of the prejudice resulting to the plaintiff's case due to how the alcohol issue was used and came into evidence.123

The dissenters could not go along, however, with the five justice majority on the apportionment of fault decision. Chief Justice Wells believed that the D'Amario/Nash rule would be an unworkable trial procedure proposition.124 Also, the dissent argued that Florida already had ample protections available to a trial judge to control evidentiary admissibility, and the use of alcohol references which pervasively influenced both these particular trials.125 Therefore, it was not necessary for the Florida Supreme Court, on the record before it, to suddenly adopt a new legal landscape changing legal pronouncement by mandating how crashworthiness cases were to be treated differently from all other tort cases, irrespective of whether this rule was to be enacted from a "majority" or "minority" perspective.126

Much of the dissent's discussion was focused on the holding in Meekins v. Ford Co.,127 a "majority" position case, which was also extensively cited in the main D'Amario/Nash opinion, but ultimately rejected.128 In Meekins, the Court discussed several of the same real world problems in crashworthiness cases caused by excluding evidence of comparative fault caused by the first crash to reduce a manufacturer's liability.129

119. Id. at 441–42.
120. Id. at 442.
121. D'Amario, 806 So. 2d at 442.
122. Id. at 443 (discretion of trial court in granting motion for new trial).
123. Id. at 442–43.
124. Id. at 442.
125. Id. at 443 (citing FLA. STAT. § 90.403 (2000)).
126. D'Amario, 806 So. 2d at 442–43.
128. Id. at 432–33; see Meekins v. Ford Motor Co., 699 A.2d 339, 343 n.22 (Sup. Ct. Del. 1997). Meekins v. Ford cited Professor Reichert's Montana Law Review article as support for the rationale why comparative negligence should not be used to evaluate ultimate proximate causation in an enhanced injury case. Id. at 342–43. The D'Amario majority relied on the Reichert article extensively. D'Amario, 806 So. 2d at 434.
129. It is, indeed, ironic that both the majority decision in D'Amario and the dissent extensively cited the Meekins case. Meekins, however, went with the majority of jurisdictions, which have held that comparative negligence is a proper apportionment of proximate causation in an enhanced injury case. Meekins, 699 A.2d at 344. In Meekins, the issue came up as a result of plaintiff's filing "a motion in limine to exclude the trial testimony of an accident reconstruction expert hired by the defendant who will offer testimony regarding plaintiff's negligence in causing the accident and the dynamics of the resulting injury which plaintiff claims to have sustained." Id. at 340. The claimed defect in Meekins was an airbag, which allegedly injured the plaintiff's fingers
Chief Justice Wells' comments provided a practical platform to be used as a reason for supporting the ultimate conclusion of this article. Although the Wells dissent far from advocated abolishing the crashworthiness doctrine altogether, it did argue for a practical solution to these crashworthiness discrepancies. According to the dissent, let the trial courts instead use the tools they have available to control evidentiary admissibility. Such a rule will allow the formidable adversarial talents of plaintiffs' attorneys litigating product liability cases establish the proper evidentiary balance for each case under its particular facts. Therefore, if all the facts come in, the jury should be able to assess liability against all parties involved.

3. The Litigation World in Florida After D'Amario and Nash

The Florida Supreme Court has never expounded upon its decision of how to implement D'Amario. Those first few cases coming up through the intermediate appellate courts were perfunctorily reversed and remanded for new trials because of the D'Amario/Nash decision. There were, however, some other immediate impacts resulting from D'Amario and Nash. On the practical side, for example, General Motors (GM) had a jury verdict increased by the Fourth District from $33 million to $60 million. In General Motors Corp. v. McGee the jury had apportioned fault against a drunk tortfeasor causing the initial crash so GM received a 45% verdict reduction. The First District's Griffin v. Kia decision was an appellate court decision that substantively dealt with the D'Amario/Nash decision.

Griffin arguably demonstrated many of the weaknesses in the D'Amario analysis. Griffin brought a claim alleging he was rendered a quadriplegic because of a defect in the reclining front seatback of his Kia, a compact passenger car. The claim was that if a passenger was fully reclined in the front seatback and wearing the seatbelt, the reclining of the seatback compromised the effectiveness of on his left hand as a result of the deployment of the airbag. Id. The defect in the airbag resulted in the fingers being "crushed against the steering wheel when the airbag inflated." Id.

130. D'Amario, 806 So. 2d at 442–43.
131. Id.
132. See Ferayorni v. Hyundai Motor Co., 822 So. 2d 502 (Fla. 2002); see also Gen. Motors Corp. v. McGee, 837 So. 2d 1010, 1030, 1039–40 (Fla. Dist. Ct. App. 2003). In Hyundai Motor Co. v. Ferayorni, the court had initially reversed the trial court for refusing to add a drunk driver, as a non-party defendant under Fabre, on the verdict form. 842 So. 2d 905 (Fla. Dist. Ct. App. 4th 2003). That decision had specifically disapproved of Nash v. General Motors Corp., which held that a drunk driver would be an intentional tortfeasor and therefore under Fabre would not be a comparative fault party for purposes of apportionment. 734 So. 2d at 440. D'Amario overruled Nash on that issue finding that a drunk driver resulting in an accident was not an intentional tort. See D'Amario, 806 So. 2d at 438. The Florida Supreme Court, based upon D'Amario, later remanded Ferayorni for consideration in light of its decision in D'Amario. Ferayorni, 822 So. 2d 502. Although the initial judgment in Ferayorni did not reduce the verdict amount by the comparative fault of a third party or non-party Fabre defendant, the case was remanded back to the Fourth District Court of Appeals in light of D'Amario. Id. at 502. This was because the Fourth District had held the trial court was in error by not putting the drunk driver on the verdict form under Fabre. See Hyundai Motor Co. v. Ferayorni, 795 So. 2d 126, 130 (Fla. Dist. Ct. App. 4th 2001).
135. Id. at 338.
the seat belt system upon the occurrence of a frontal collision. Upon a frontal impact, plaintiff argued, a reclined seatback enabled the passenger to move forward and be injured as if they were unrestrained. When reclined on the front seatback, the shoulder belt of the restraint system no longer contacts or restrains the upper torso, and the occupant "submarines" or slips down under the lap belt due to the reclined angle between the belt webbing and the seat cushion.

Griffin claimed to have his front passenger seatback reclined 45 degrees rearward while sleeping, but still wearing his seatbelt. His vehicle was being driven by a friend. It was not disputed that the driver fell asleep at the wheel. As the vehicle drifted off the side of the roadway on I-10 near Tallahassee, the rumble strips woke up the driver, and then by his own testimony Griffin also awoke and reached up from the reclined seatback across to his left to grab for the steering wheel, however, he did not actually touch the wheel.

Griffin claimed the vehicle ran into a cherry tree at the right front portion of the car and then careened off and came to rest against another tree. It was pivotal to Griffin's claim that a frontal impact occurred since the asserted defect of the reclined seatback was based only upon a frontal crash.

Griffin’s lawyers contended, accordingly, because he was leaning back on the reclined seatback when the vehicle hit the first tree he was caused to slide under his lap belt, and then pivoted upward and forward. This enabled the shoulder belt, which was now positioned away from his chest due to his reclined position, to clothesline his neck causing the cervical spinal cord injury.

The defendant manufacturer’s version of the crash was the antithesis of what was just stated. It claimed the Kia rolled over and never had a frontal impact to the first tree, or any other type of frontal impact as claimed. More importantly, Griffin was not even on his reclined passenger seatback once he awoke, reached up and over to grab the steering wheel. Consequently, he was no longer in a reclined position against the seatback at the time of any kind of crash, so the facts did not support the defect claim. Griffin’s cervical spinal cord injury occurred, the defense argued, when his head impacted the interior of the roof while he was inverted during the rollover sequence. In other words, his head hit the roof.
supported by the ground during the rollover, just like diving into a hard surface head first.149

Griffin was tried, prior to D’Amario, in May 2001.150 There was a verdict for the defendant.151 The trial judge allowed into evidence what happened in the causation of the underlying crash with the driver falling asleep, and Griffin’s role in reaching up and grabbing the steering wheel.152 The driver was also put on the verdict form as a Fabre defendant, as was Griffin himself.153 D’Amario was decided during the pendency of Griffin’s appeal.154 The First District reversed the defense verdict under D’Amario because the accident causing first tortfeasors had been put on the verdict form as a Fabre defendant.155 Yet, on remand, according to the Griffin decision, the jury would first have to determine whether the Kia rolled over or hit the cherry tree in a frontal collision as the plaintiff claimed.156 On this issue the defendant manufacturer would be allowed to put into evidence the driver falling asleep, Griffin’s own conduct in reaching for the steering wheel, and arguably grabbing it, which played a role in the loss of control.157 According to the First District in Griffin, if the jury on remand found it was a rollover, the defendant manufacturer would prevail.158 However, if the jury determined it was a frontal impact to the Kia, the manufacturer could still as a defense offer evidence that the seatback did not play a causative role in enhancing Griffin’s injury.159 Although unstated in the opinion, presumably all of this would have to take place in a bifurcated or multiple-phased trial.160 No certiorari was taken to the Florida Supreme Court by either party, although arguably the First District Court’s decision could be considered in direct conflict with D’Amario/Nash, or at least adding more confusion.161

Most assuredly, the Florida Supreme Court likely did not anticipate that D’Amario might be used in non-motor vehicle cases. Their interpretation of the crashworthiness doctrine, to be sure because of previous cases, would be

149. Id. ("[I]njuries occurred when his head smashed into the interior roof of the car."). One description of this type of injury mechanism and rollovers can be found at Parenteau & Shah, Driver Injuries in U S. Single-Event Rollovers, S.A.E. 2000-01-0633. Therein it is stated: Ground impact phase—as the vehicle impacts the ground, the occupant will continue to move in its initial velocity, heading towards the vehicle interior. Spinal injuries occurred when drivers were outboard passengers, and not when drivers were inboard passengers. Spinal injuries in a rollover are often associated with a "diving-type" injury mechanism. The kinematics of the inboard and outboard passengers is somewhat different in a rollover. The outboard passenger moves along a larger radius than the inboard passenger does. The energy for the outboard passenger is thus higher than for the inboard passenger. . . . The belt may potentially keep the spine aligned with the head. As the occupant torso dives towards the struck area, spinal injury may potentially result.

150. Griffin, 843 So. 2d at 336; D’Amario, 806 So. 2d at 424.
151. Griffin, 843 So. 2d at 336.
152. Id. at 337–38.
153. Id.
154. Id. at 336.
155. Id. at 337.
156. Id. at 339.
157. Griffin, 843 So. 2d at 339.
158. Id.
159. Id.
160. Id. at 336.
anticipated to apply to motorcycles and to perhaps other types of motorized products. Yet, the idea of a successive tort and the enhancement of damages discussed in *D'Amario* was attempted to be applied in several other types of cases, which were totally unrelated to motor vehicle crashes.\(^{162}\) There have been two prominent examples.\(^{163}\) One dealt with trying to apply *D'Amario* to a situation involving a death in a nursing home by attempting to separate the issue of allowing a patient to become dehydrated, and/or the medical malpractice related to it.\(^{164}\) In other words, the case was trying to analogize enhanced injuries to successive torts caused by another. The case was *Jackson v. York Hanover Nursing Centers.*\(^{165}\)

In that case, the intermediate appellate court had to decide whether *D'Amario* applied so the damages that may have been caused by the lack of fluids resulting in dehydration could be distinguished from the medical care subsequently rendered by the nursing home.\(^{166}\) Florida’s Fifth District Court of Appeal held that, in distinguishing the application of *D'Amario*, there could be joint tortfeasors in apportionment of damages in that particular wrongful death case.\(^{167}\) The *Jackson* court specifically dealt with the contended analogy of two accidents or two events, one which enhanced the injury caused by the initial dehydration, but not the subsequent medical malpractice.\(^{168}\) *Jackson* grappled with the issue of a successive *Fabre* defendant’s inclusion on the verdict form, despite *D'Amario*.\(^{169}\) The court stated: “In a nutshell, we are asked whether the Florida Supreme Court’s holding in *D'Amario v. Ford Motor Company* applies to the facts of this case. If *D'Amario* applies, an apportionment pursuant to *Fabre* was improper. We conclude, however, that *D'Amario* is not applicable, and affirm.”\(^{170}\)

The nursing home defendant in *Jackson*, as an affirmative defense, raised the contention that the medical center was negligent in the care and treatment of the decedent prior to her admission to the facility operated by the nursing home.\(^{171}\) Of course, *D'Amario* had held that one could not make a *Fabre* defendant in a two collision or two accident case.\(^{172}\) The issue in *Jackson* was that “Johnson [the decedent] was dehydrated, an action that in [the expert’s] opinion fell below the standard of care.”\(^{173}\) The question became whether the ultimate death was the result of the dehydrated state while in the nursing home or the medical center who “failed to complete an ‘Input-Output’ form which would have identified the malabsorption problem and indicated that Ms. Johnson [the decedent] was dehydrated . . . .”\(^{174}\) In other words, who killed Johnson?

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162. See cases cited infra notes 171, 183.

163. See cases cited infra notes 171, 183.

164. See case cited infra note 171.

165. 876 So. 2d 8 (Fla. Dist. Ct. App. 5th 2004).

166. *Id.* at 12.

167. *Id.* at 12–13.

168. *Id.* at 12.

169. *Id.* at 9.

170. *Id.* at 9 (citations omitted).

171. *Jackson*, 876 So. 2d at 10.


173. *Jackson*, 876 So. 2d at 10.

174. *Id.*
The jury ultimately assessed 75% to the medical center, and 25% to the nursing home. The Jackson court made a critical distinction between its facts to that of D'Amario. A lengthy quote from the court's opinion is illustrative:

"[U]nlike automobile accidents involving damages solely arising from the collision itself, a defendant’s liability in a crashworthiness case is predicated upon the existence of a distinct and second injury caused by a defective product, and assumes the plaintiff to be in the condition to which he is rendered after the first accident. . . . Thus, crashworthiness cases involve separate and distinct injuries—those caused by the initial collision, and those subsequently caused by a second collision arising from a defective product. We agree that when viewed in this light, crashworthiness cases may be analogized to medical malpractice cases involving a successive negligent medical provider who is alleged to have either aggravated an existing injury or caused a separate and additional injury."

It appears, therefore, that D'Amario only applies in Ms. Johnson’s case if there were two distinguishable injuries, one caused by the Medical Center, and either a second separate and distinct injury caused by the Nursing Home, or an aggravation by the Nursing Home of an existing injury to Ms. Johnson originally caused by the Medical Center.

The limited record that we have of the proceedings below, however, indicates that both the Medical Center and the Nursing Home were dealing with a continuum of the same injury. The testimony reflects that Ms. Johnson was dehydrated while in the Medical Center; was still dehydrated when she left the Medical Center; and continued to be dehydrated during her days at the Nursing Home’s facility. The trial court, in allowing damages to be apportioned by the jury in accordance with Fabre, concluded on the basis of the substantial competent evidence adduced at trial that there was only a single injury, and accordingly, that D'Amario did not apply. We think the trial judge got it right.

Section 768.81, Florida Statutes (1999), deals with apportionment of damages, and in cases to which this particular section applies, the court must enter judgment against each party liable on the basis of each party’s percentage of fault, and not on the basis of the

175. Id.
doctrine of joint and several liability . . . . This section applies to negligence cases, including professional malpractice cases. In *Fabre*, the Florida Supreme Court interpreted the term, “party,” to include all persons who contributed to the accident “regardless of whether they have been or could have been joined as defendants.”

Whether defendants are joint tortfeasors is ordinarily a question of fact determined by the circumstances of the particular case. In the instant case, as we have noted, there is only one injury, that being the death of Ms. Johnson by malabsorption of liquids and consequent dehydration, and the jury saw fit to apportion the damages. Moreover, as we have earlier indicated, there was sufficient evidence produced reflecting that the Medical Center and the attending physician at the Medical Center acted in concert with the Nursing Home to cause the single injury. Under these circumstances we conclude that no error was committed by the trial judge in allowing an apportionment of the damages suffered by Ms. Johnson.176

Florida’s Third District Court of Appeals also dealt with *D’Amario* in a completely unrelated context to motor vehicle crashes. This case was *Sta-Rite Industries, Inc. v. Levey*.177 *Levey* was clearly a tragic case. A fourteen year-old boy drowned and suffered severe “brain injuries” when an unsecured protective grate had been removed from a swimming pool.178 The teenager “was caught in the powerful suction of the exposed drain.”179 Numerous rescuers could not free him from the drain.180 “By the time the suction was released . . . almost twelve minutes had passed. . . . [and] the boy was catastrophically brain damaged. . . .”181 The Third District Court of Appeals reversed a verdict and ordered a new trial.182

*Sta-Rite* was the manufacturer of the pump.183 There was also a claim as to a *Fabre* defendant, the owner and maintenance company, for negligence in not properly maintaining and operating the pool.184 The court reversed the verdict, holding “[w]e also conclude that the damage verdict cannot stand and that any new trial must involve the issues, not only of the respective responsibilities of Sta-Rite, the owner, and maintenance company, but of damages as well.”185 The court

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176. *Id.* at 12–13 (citations omitted).
178. *Id.* at 903.
179. *Id.*
180. *Id.*
181. *Id.*
182. *Id.* at 909.
183. *Levey*, 909 So. 2d at 903.
184. *Id.*
185. *Id.* at 903.
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concluded there was a fundamental error committed by the trial court in apportionment of liability between Sta-Rite, the pool owner, and the maintenance company respectively. The plaintiff had argued, and the trial judge accepted, that under D’Amario there was a two accident event in causing the plaintiff’s death. That is, the teenager’s

injuries resulted from two separate “accidents”—the first occurring when his arm was initially caught in the suction of the exposed drain, and the second when (after a second or two passed without significant harm)—the suction was not released as it would have if such a device had been installed, so that Lorenzo remained caught for the extended period which resulted in his injuries.

The trial court stated that the claim against Sta-Rite, as the manufacturer, was based upon a second accident theory in which there could be no Fabre defense in accordance with D’Amario. The Third District determined there was not a two accident case here.

It was indeed a strange theory because of the attempted application of the crashworthiness doctrine to a situation where a little boy almost drowned in a swimming pool on a claim of both a service maintenance issue to the pump on the drain in the pool, and the drain itself, a long way from the motor vehicle crashworthiness theory’s underpinnings.

Finally, outside other jurisdictions who have examined the D’Amario decision, even some of those jurisdictions who at the time of D’Amario were also minority view forums, have since rejected Florida’s decision making in the field.

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186. Id. at 906.
187. Id.
188. Id.; see Roth, Second Collision, supra note 1, at 20–27; Roth, Burden of Proof Comundrum, supra note 1, at 10–18.
189. Levey, 909 So. 2d at 906.
190. Id. at 906–07.
191. Most recently, the Supreme Court of Iowa overruled a previous ruling upon which, coincidentally, the D’Amario court relied. Jahn v. Hyundai Motor Co., 773 N.W.2d 550, 560 (Iowa 2009). Iowa reversed its earlier holding, adopting essentially the position of this author and opting for the majority instead of the minority positions. Id. at 560–61. The previous Iowa decision was specifically relied upon by the majority in D’Amario v. Ford as support for its acceptance of the minority position. 806 So. 2d at 433–34. The case D’Amario relied on was Reed v. Chrysler Corp., 494 N.W.2d 224, 230 (Iowa 1992). The D’Amario court quoted from Reed as follows:

The theory [crashworthiness], which presupposes the occurrence of accidents precipitated for myriad reasons, focuses alone on the enhancement of resulting injuries. The rule does not pretend that the design defect had anything to do with causing the accident. It is enough if the design defect increased the damages. So any participation by the plaintiff in bringing the accident about is quite beside the point.

Id. at 434 (quoting Reed, 494 N.W.2d at 230).

Reed was overruled in 2009 by the Iowa Supreme Court in Jahn, 773 N.W.2d at 559–60 (Iowa 2009). In Jahn, the court reviewed D’Amario as the main proponent of the minority position. Id. at 555. The Jahn case recognized that Iowa was now a state of pure comparative negligence. Id. at 560. It believed that comparative fault law would adequately handle issues arising in enhanced injury cases. Id. Reed was also a case, like D’Amario, which involved intoxication. Id. at 558. The Jahn court believed it had to make a decision between the various

The legal concept of crashworthiness is simple enough, and even persuasive in the abstract. Stated in lay language, a manufacturer can only be held liable for those injuries caused by a defect which occurs after the initial accident. Those injuries must be enhanced, increased, or made greater from what they would have been resultant from that first collision, _but for_ the alleged crashworthiness defect which enhanced the injury severity.

A manufacturer, on the other hand, is not an insurer in protecting against all injuries. The second collision, apart from the first accident in this equation, is generally considered one between the occupant and some interior portion of the motor vehicle. For example, the occupant would collide with the steering wheel, positions of Huddell or Fox-Mitchell, which the Reed court never addressed. Id. at 559. Jahn reversed Reed and changed its law to follow the majority position. Id. at 560. That court stated as follows:

> We recognize, however, that in cases where the factfinder has found a divisible injury, the liability of the product manufacturer, though subject to comparative fault analysis, is limited to the amount of the divisible injury. Having found that the comparative fault provisions of Iowa Code chapter 668 apply to enhanced injury cases, it follows that the joint and several liability provisions of Iowa Code section 668.4 apply to parties liable for divisible or indivisible injuries.

> In light of the Restatement (Third), the evolving case law from other jurisdictions, and our duty to interpret Iowa Code chapter 668 in accordance with the legislative intent revealed by its language, we overrule Reed and align our law with the Restatement (Third) and the majority of jurisdictions.

> We adopt the Fox-Mitchell approach to the required causation in enhanced injury cases. We further hold that the principles of comparative fault and joint and several liability found in Iowa Code chapter 668 apply in enhanced injury cases. As a result, the answer to both certified questions is “Yes.”

Id. at 560-61 (citations omitted).

The plaintiffs dispute the use of the nomenclature “enhanced injury.” The phrase is simply a convenient label, however, and has no independent significance. It represents that portion of total damages for which a product manufacturer may be liable in a multiparty action involving an initial cause unrelated to a product defect.

Id. at 553, n.1.

In another state case decided since D’Amario, one of first impression, Dannenfelser v. Daimler Chrysler Corp., 370 F. Supp. 2d 1091, 1092–93. (D. Haw. 2005), a federal district court in Hawaii, while recognizing the lead minority position represented by D’Amario, rejected its decision, granted in part and denied a part a summary judgment. However, the court in Dannenfelser specifically rejected the D’Amario rationale on comparative fault not being part of a crashworthiness case. Id. at 1097; see Mary E. Murphy, _Comparative Negligence of a Driver as Defense to Enhanced Injury, Crashworthiness, or Second Collision Claim_, 69 A.L.R. 626 (1999).

192. _D’Amario_, 806 So. 2d at 439.
193. _Id._ at 439–40, 442–43.
194. Ford Motor Co. v. Evancho, 327 So. 2d 201, 204 (Fla. 1976).
195. Foland, _supra_ note 11, at 600 n.2 (citations omitted).

The terms “second collision” and “second impact” are apparently adopted from automobile cases involving sequential collisions, but, as used in this article, the terms refer to the striking of an area or part of the interior or exterior of the vehicle after the original impact of the vehicle with another object.
instrument panel, or roof pillars. Although Larsen and other early crashworthiness decisions did not necessarily discuss this, the second collision or impact (occupant to car interior) could also be an impact from an installed safety device. This might involve a failed seatbelt which upon the crash becomes disengaged or breaks, an airbag which deployed or failed to deploy, or a padded interior component, just to name a few. The crashworthiness concept could also be with an exterior object if a seatbelt failed to properly restrain the occupant and there was an ejection or partial ejection from the vehicle. This often happens in rollovers. The design of the motor vehicle to protect an occupant has to be only against reasonably foreseeable risks. In other words, the crash protection capabilities have to provide reasonable protection, not absoluteness.

However, if one were to look at the legal theory underlying the crashworthiness doctrine, the details must be flushed out in a jury trial where all the facts can be examined. Experts ultimately opine to the jury whether the design was defective by not providing reasonable protection, and what the enhanced

Id.


197. See Automotive Coal. for Traffic Safety, Inc., WHAT YOU NEED TO KNOW ABOUT AIRBAGS (Nov. 2002), www.nhtsa.dot.gov. There has been a strong concerted effort on the part of anti-industry and consumer proponents to establish causes of action and claims for airbag-related injuries and deaths. See generally PARENTS FOR SAFER AIRBAGS, THE AIRBAG CRISIS: CAUSES AND SOLUTIONS (1st ed. 1997); see also Higgs v. Gen. Motors Corp., 655 F. Supp. 22 (E.D. Tenn.), aff'd, 815 F.2d 80 (6th Cir. 1985) (claiming that the airbags enhanced injuries). Obviously, what constitutes an unreasonable risk, or foreseeability in terms of imposing liability on the manufacturer will vary from case to case. In Dreisonstok v. Volkswagen, A.G., 489 F.2d 1066, 1070 (4th Cir. 1974), the court attempted to define these concepts as follows:

The mere fact, however, that automobile collisions are frequent enough to be foreseeable is not sufficient in and of itself to create a duty on the part of the manufacturer to design its car to withstand such collisions under any circumstances. Foreseeability, it has been many times repeated, is not to be equated with duty; it is, after all, but one factor, albeit an important one, to be weighed in determining the issue of duty.

The key phrase in the statement of the Larsen rule is "unreasonable risk of injury in the event of a collision", not foreseeability of collision. Whether or not this has occurred should be determined by general negligence principles, which involve a balancing of the likelihood of harm, and the gravity of harm if it happens against the burden of the precautions which would be effective to avoid the harm. In every case, the utility and purpose of the particular type of vehicle will govern in varying degree the standards of safety to be observed in its design.

Id. at 1070, 1071–72.

198. See E. Moffatt et al., Head Excursion of Seat Belted Cadaver, Volunteer, and Hybrid III ATD In a Dynamic/Static Rollover Fixture, in STAPP CAR CRASH CONFERENCE PROCEEDINGS (Soc'y of Auto. Eng'rs 1997) [hereinafter Head Excursion].

199. Courts will usually talk about reasonableness in terms of the obligation or duty imposed upon a manufacturer to protect occupants in a collision, or to design their products to protect individuals in crashes. See Whitted v. General Motors Corp., 58 F.3d 1200, 1206 (7th Cir. 1995) (applying Indiana law); Haberkorn v. Chrysler Corp., 533 N.W.2d 373, 379–80 (Mich. Ct. App. 1995).

https://lawpublications.barry.edu/barrylrev/vol18/iss2/7
injuries were or were not. 200 These trials usually boil down to a battle between experts. In the daily grind of courtroom adversity, a crashworthiness defense is usually that the injuries—however tragic—occurred because of the severity of the first crash, high speed/velocity, and energy forces; that is, they would have resulted anyway due to the severity or circumstances involved in that first collision. Correspondingly, in the courtroom plaintiffs’ attorneys usually strive to minimize the severity and speed of that first impact, while defense counsel seek to prove it to be as severe as possible. The higher the speed of the crash, the greater the risk or probability of serious injury and death. 201 Two old adages are at work here. First, speed kills. Second, it is not how fast you are going—it is how fast you stop!

For the person reading this article, the thought might have occurred by now that perhaps the crashworthiness theory has never been as easy to apply as its black letter statement note infers. Here is an example of common situation involving a rollover crash. Usually, they are single vehicle crashes—meaning no other vehicle played a role in causing the rollover to occur. 202 Rollovers are statistically high fatality events. 203 Plaintiffs’ attorneys, to the contrary, argue rollover accidents are very mild events in terms of injury exposures. 204 Plaintiffs’ experts contend that whether it is one complete roll, or several, the impacts within each rotational revolution, as it affects occupant exposure to injury, is very mild. 205 Thus, when an injury occurs it is from a minor exposure to forces experienced due to the rollover,

200. In cases alleging an enhanced or increased injury it is very common, if not an absolute necessity, that expert witnesses are called to testify as to what the injuries would have been without the alleged defect. See, e.g., May v. Portland Jeep, Inc., 509 P.2d 24, 26-27 (Or. 1973); Hillrichs v. Avco Corp., 478 N.W.2d 70 (Iowa 1991). As one early commentator stated: “The burden of proof of enhanced injury, being an essential element of the plaintiff’s case, must rest upon the plaintiff. Competent expert testimony, sufficient to provide the jury with a reasonable basis for apportioning the injury, is required to sustain this burden.” Foland, supra note 11, at 621; see also Harris, supra note 43, at 661–65.

201. The Vickles and Oldham article is more technical than general law review articles. So is the Harris article in the North Carolina Law Review. According to Vickles and Oldham:

In practice, because of the laws of physics and principles of energy management, it is often difficult to distinguish between so-called “accident-causing” and “injury-enhancing” conduct. The enhancement of injuries runs hand in hand with the severity of the accident. For example, each incremental increase in speed results in a corresponding increase in crash consequences because the forces unleashed in the crash are magnified exponentially. Thus, any conduct which influences the severity of an accident, thereby constituting a proximate cause of enhanced injury, should be compared with a manufacturer’s fault.

Vickles & Oldham, supra note 34, at 439–40 (footnotes omitted).


so that the defect—be it roof strength to seatbelts—must have caused an enhanced injury to result. Usually it is a claim that the roof crushed down and impacted the head and neck of the occupant causing a serious injury or death. This sequence is the but for conclusion. In turn, plaintiffs’ biomechanical experts simply testify that had the rollover not occurred—the first collision if you will—the occupant would not have been injured or killed.

On the contrary, the defense of the vehicle manufacturer concentrates on the severity of a rollover crash. The forces that occur within each revolution or rollover are what exposes the occupants to severe injuries, even if wearing seatbelts. For example, a person within a vehicle wearing a seatbelt can still impact the roof causing a cervical or neck injury due to augmented loading (the head stopping and the body continuing), and this can occur absent a defect before the roof crashes downward, regardless of the vehicle type. Although it seems counterintuitive, tests have shown that even before the roof crushes down to impact an occupant in a rollover, the injury to the head or neck of the occupant has already occurred. The other issue which arises, unless people are prepared to wear five point belt systems like NASCAR drivers, is that no conventional seatbelt can keep an occupant’s head, for example, from extending past the window plane and coming into contact with the pavement or ground, or being crushed while the vehicle is rolling over. Consequently, an occupant’s head also can extend beyond the plane of the window during a rollover, or be partially or completely ejected, even when wearing a seatbelt. All of this can occur even when the various safety features of the motor vehicle perform perfectly. Seatbelts are three point belts. They cannot restrain a head in all crashes.

206. Florida Statute section 316.614 (2012) requires every driver and front seat passenger in a motor vehicle to be restrained by a safety belt. The statute also states that a violation shall not constitute negligence per se, or to be used as prima facie evidence of negligence or in mitigation of damages. Id. However, failure to wear a seatbelt can be considered as evidence of comparative negligence. Id. There should be single calculation for comparative negligence with regard to failure to use a seatbelt on the verdict form. Ridley v. Safety Kleen Corp., 693 So. 2d 934 (Fla. 1996). Seatbelts have also been shown to be effective in reducing fatalities in rollovers. Parenteau, supra note 155, at 7. For a plaintiff’s viewpoint and discussion of seatbelts, see THE DEFENSE RESEARCH INSTITUTE, INC., THE SEAT BELT DEFENSE 42–55 (1985).


209. See infra note 216.


211. See infra note 218.

212. See generally Parenteau, supra note 149; Head Excursion, supra note 198.

213. Head Excursion, supra note 198.

214. Id.
These second collision appellate decisions, especially like D’Amario, usually rationalize this result by saying that the liability of the manufacturer is only for the enhanced injury.215 There is no liability for any injuries arising from the first crash. However, in the real world of trying a crashworthiness case to a jury this distinction is one without a difference. It is not so easy to separate either by testimony, or evidence, the first crash from the second crash.

5. How Motor Vehicle Crash Injuries Occur in the Real World

An enhanced injury event cannot occur, nor can it otherwise exist, without the underlying first collision. That first collision dictates what type of second injury, or risk of an increased injury event, might occur.216 There must be a first collision crash to have a second collision defect enhanced harm. Yet, as will be shown, the sine qua non between the two essentially transpires at the same time. Although the crashworthiness analogy to subsequent medical malpractice is nice, in cases such as D’Amario, and tidy from a theoretical standpoint, it does not hold up in terms of how people are actually injured or killed, enhanced or not, in motor vehicle crashes.217

To make the point about how motor vehicle crash injuries occur, from a technical standpoint, reliance for this sub-section argument comes from published work by experts who usually testify on behalf of plaintiffs in these crashworthiness

215. “Enhanced injury refers to the degree by which a defect aggravates collision injuries beyond those which would have been sustained because of the impact or collision absent the defect.” AM. L. PROD. LIAB. 3D, PRAC. AIDS § 695 (2013).

216. According to experts to plaintiffs’ attorneys,

decelerations that occur immediately after the initial impact can damage living tissue without the occupant striking any feature of the vehicle interior. These can be termed first-collision injuries. Tissue can be damaged by decelerative forces imparted to an occupant ejected from the vehicle upon striking the ground or some object outside the vehicle; and these can be termed third-collision injuries.


217. Generally, the legal commentators in this area discussing the various nuances of crashworthiness have not been very technical in their approach. They only discuss generally the legal issues from a sterile, antiseptic perspective. One early exception to this was W. James Foland’s article. See Foland, supra note 11, at 616–19. However, in that article it was only simplistically recognized that these types of cases would involve issues of occupant kinematics and biomechanics in the nature of reconstruction, and medical testimony on human impact tolerance. Id. at 617; but see Harris, supra note 43, at 668–69 n.178–81, (where some tacit appreciation was recognized for some of the technical issues in these crashworthiness cases). There was no engineering or biomechanical-type of detail with respect to how injuries occur in collisions. See Michael Hoenig, Understanding “Second Collision” Cases in New York, 20 N.Y. L. FORUM 28, 52–54 (1974); see also Yetter v. Rajeski, 364 F. Supp. 105, 109 (D. N.J. 1973) (there was no medical testimony in terms of human body impact tolerances). Michael Hoenig, a practicing PL attorney with the Herzfeld & Rubin firm in New York, often discusses a technical understanding, as a practicing attorney in the field of crashworthiness, in his legal articles. See, e.g., Michael Hoenig, Resolution of “Crashworthiness” Design Claims, 55 ST. JOHN’S L. REV. 633 (1981); MICHAEL HOENIG, PRODUCT LIABILITY: SUBSTANTIVE, PROCEDURAL AND POLICY ISSUES 791–93 (Product Liability Advisory Council Foundation 1992).
cases. The fact is that injuries which result from a first collision, whether enhanced or not, take place temporally simultaneous with the underlying crash.

The so-called second collision between the occupant and the vehicle interior, or a component part including seat belts or airbags, is an instantaneous event to the first crash. When, for example, a motor vehicle is involved in a frontal impact the following events transpire:

All of the deformation of metal, all of the tearing and crushing of flesh occurs, quite literally, in the blink of an eye. In about one tenth of a second, to be precise.

In order to study this relatively brief time period we divide it into units of one-thousandths of a second, called "milliseconds." Thus a typical frontal [automobile] crash begins and is over in about 100 to 120 milliseconds, the duration increasing with increasing vehicle curb weight and with increasing delta v; ("delta v" is further defined below and should be taken to mean an essentially instantaneous change in velocity).

The way the human body moves in a motor vehicle crash from the collision forces created is called kinematics. In a thirty miles per hour (mph) frontal impact, to continue this example, for an unrestrained driver and front seat occupant who began to move forward from the crash force in a seated position their knees make contact with the lower IP (dash) in sixty milliseconds; driver contact with the steering wheel occurs in seventy-five milliseconds; and the windshield is struck in ninety milliseconds. A millisecond is one-thousandth of a second. One thousand milliseconds equal one second.

The movement of a seatbelt restrained driver in a frontal crash will still contact the dash and have his or her head strike the steering wheel within seventy-five and ninety milliseconds respectively. The so-called kinematics, or movements of the

\[218.\] The necessity for expert witnesses and the reliance upon them in technical cases, such as products liability litigation, has spawned the term junk science. See *What is Junk Science?*, JUNKSCIENCE.COM, http://junkscience.com/what-is-junk-science/ (last visited Feb. 27, 2013). As a result, particularly the Federal courts began to more closely scrutinize the scientific basis and foundation for expert testimony. See, e.g., Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993). Florida state courts follow the Frye rule. Frye v. United States, 293 F. 1013 (D.C. Cir. 1923); see Kaminski v. State, 63 So. 2d 339 (Fla. 1953). Dr. Alvin Hyde testifies on behalf of attorneys representing plaintiffs. See Hyundai Motor Co. v. Chandler, 882 S.W.2d 606, 612 (Tex. Ct. App. 1994).

\[219.\] Airbags deploy in 1/20th of a second (faster than the blink of an eye) at speeds between 90 and 211 MPH with a force up to 2600 lbs. per square inch. See *The Airbag Crisis*, supra note 193, at XIV. Various plaintiffs' attorneys' associated advocacy organizations have been critical of airbag designs and defenses. See generally RICHARD M.GOODMAN & CENTER FOR AUTO SAFETY, AUTOMOBILE DESIGN LIABILITY § 1:4 (3d ed. 1991) (Crashworthiness, § 1:8).

\[220.\] A. HYDE, CRASH INJURIES: HOW AND WHY THEY HAPPEN A PRIMER FOR ANYONE WHO CARES ABOUT PEOPLE IN CARS 6 (Hyde Assocs., Inc. 1992) (emphasis added).

\[221.\] Occupant kinematics would be defined as "[t]hat phase of mechanics which deals with the possible motions of a material body." DORLAND'S ILLUSTRATED MEDICAL DICTIONARY 781 (24th ed. 1965).

\[222.\] HYDE, supra note 220, at 8, Fig. 1A, B.

\[223.\] *Id.* at 9, Fig. 2.
occupant’s body within the vehicle due to the energy forces of the accident, has also been described by one plaintiff expert this way, in a hypothetical frontal barrier thirty mph crash:

At zero time (0 ms, or 0 milliseconds) the front of the car has just contacted the barrier. By 90 ms the front of the car has been crushed about 2 feet; which is to say that the car has essentially stopped its forward motion. During this brief period the occupant-dummy continues its forward travel at 30 miles per hour (about 44 feet per second), its forward motion impeded only slightly by the friction between the dummy’s bottom and the seat pan, until it strikes its knees into the dashboard at about 60 milliseconds, causing the lower body to abruptly stop its forward travel and causing the upper torso to flex (bend forward), the upper torso striking the steering assembly at about 75 ms into the crash.

The head and neck flex further when the chest strikes the steering wheel and then contact (often passing into and through) the plane of the windshield, shattering the windshield, and, on occasion, parts of the head and face too, at about 90 milliseconds. Another way to visualize this is to understand that the crash started out with the head 2 feet or so from the windshield, at its “normal” driving position. Then, in the crash event, the car stopped after 2 feet of travel and the head after 4 feet of travel. Clear? If not, you ought to re-read and reflect upon this section on slow-motion collision kinematics. 224

The duration of time for injury causation or an injury, including death, to occur in an accident, and the amount of crash forces explain why and how people receive their injuries:

[F]or an impact occurring in the time realm of about 100 milliseconds (i.e., 0.1 seconds) which is the time for a usual automotive crash and occurs in figure 10 at the lower left corner of the “Zone of Injury or Death”, velocity changes less than about 80 feet per second and peak accelerations of 20 G or less (occurring for 100 milliseconds) are probably safe, which is to say, survivable. Similarly, a 20 millisecond impact with a delta v below 80 feet per second is probably survivable even at 200 G. Or a 20 G accelerative load for 10 seconds is survivable even at velocity changes as great as 10,000 feet per second. 225

224. Id. at 13.
225. Id. at 40.
Knowing the physics involved in these car crashes, one would strain credibility to be able to analogize a motor vehicle to a subsequent medical malpractice event occurring at some later time and date, perhaps days later. As one expert has written:

[B]ecause we are just a bundle of tissues of differing viscoelasticities, we respond to shorter duration impacts (less than 0.1 second) only in terms of velocity changes (i.e., in terms of delta v) and to long duration impacts (greater than 0.1 second) primarily in terms of acceleration changes, (i.e., in terms of $G$ units, or multiples of Earth’s gravitational pull).

We have a rule here: for the average time epoch of a simple car crash, the instantaneous change in velocity (delta v) is the best predictor of injury severity or death.

However, the relationship between instantaneous change of velocity and injury severity (from the point of view of threat-to-life) is neither linear nor necessarily applicable to any one individual in any one crash. It is the probability of car occupant injury or death that increases with increasing delta v of the vehicle. To a large degree, that is all that you need to know about velocity and injury or death.226

This temporal or time sequence uniqueness to motor vehicle crashes is not just limited to frontal collisions. From the same sources as above, for side impacts the total duration required for an injury to be caused is one hundred milliseconds.227 That time sequence is also true for rear end collisions.228 Head and neck injuries also can occur in certain modes of crashes within even shorter time durations.229

The point is that a traditional crashworthiness case, despite these factors, cannot be treated as some unique tort different from any other type of case when evaluating comparative fault just because an enhanced defect is alleged. A

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226. Id. at 38.
227. Id. at 250.
228. Id. at 253–57.
229. Although spinal injuries result from an injury mechanism with forces that are rotational, flexion, or extension, for example, they all do occur nevertheless, in automobile crashes in the range of 100 to 200 milliseconds. Panjabi et al., Biomechanics of Spinal Injuries, in ANTHONY J. SANCES, MECHANISMS OF HEAD AND SPINE TRAUMA 247–60 (1986). Head injuries occur within milliseconds. This would be in a fraction of a second. See Anthony Sances & Narayan Yoganandan, Human Head Injury Tolerance, in ANTHONY J. SANCES, MECHANISMS OF HEAD AND SPINE TRAUMA 194–99 (1986). Scientific studies in the area of biomechanics of head accelerations without impacts in a motor vehicle crash resulting in brain damage, also known as diffuse axonal injury (DAI), have been on-going since the 1980s. Of course, necessary duration of the accelerations are within milliseconds to cause these types of injuries. See Lawrence E. Thibault & Thomas A. Gennarelli, Biomechanics of Diffuse Brain Injuries, S.A.E. Paper No. 856022, 555–61 (1985).
Crashworthiness Enhanced Injury Doctrine

crashworthiness defect increased harm claim must—because of its very nature and makeup as set forth above when the realities of a motor vehicle crash are examined and understood—still be subject to comparative fault apportionment. One way or another, a jury has to separate the so-called "what the injury would have been" from the "but for enhanced injury due to an alleged crashworthiness defect." 

There cannot be a second collision without a first collision initially occurring. Therefore, it is an immutable proposition that in a crash case not considering the circumstances of the first event creates an untenable result—one which is neither accurate nor fair. When a motor vehicle crashes, the circumstances under which it occurs are essential. It is the stopping of the vehicle due to an impact which generates the forces that creates potential risks for injury. The maxim of "it's not how fast you are going but how fast you stop" is applicable here. Although an airliner lands at 150 mph its stopping distance is anywhere between one to two miles; thus, passengers are not hurt and have a long duration of time to slow down as they are going the same speed as the airplane at its landing. In an automobile crash example, the vehicle traveling sixty mph stops its movement faster than in one second of time for a frontal impact into another vehicle. Contrary to the airplane analogy, the stopping distance of the vehicle is within a foot or so. For a rear-end crash illustration, a car traveling fifty mph striking the rear of a stopped vehicle, the person being hit is immediately accelerated forward from zero to almost the impact speed before one can blink an eye. This differential in speed is what causes the injuries or death in the example. In these instances people are harmed.

6. Indivisible Injuries Were Considered Enhanced Injuries under D'Amario

An issue which arguably arises in crashworthiness cases was that of an indivisible injury. The D'Amario Court made reference to a situation where the so-called enhanced injuries cannot be separated out. In this area, the Florida Supreme Court referenced Gross v. Lyons in a footnote. It could be argued that the Court anticipated the issue of an indivisible injury in crashworthiness cases when they referred to that case. The Court in D'Amario said if the injuries could not be separated the court must rely on the principle of Gross. In Gross v. Lyons, a medical malpractice action, it was held that if the jury was not able to apportion damages then any party who is found to be responsible is potentially liable for the entire panoply of damages. Basically, it fell back to joint and several liability principles.

230. It is recognized in the literature that determining what the enhanced, increased, aggravated or exacerbated injury is in a crashworthiness case involves apportionment with regard to the injury. See Foland, supra note 11, at 608, 615–16.


233. ld.

234. ld. at 443.

235. 763 So. 2d 276, 280 (Fla. 2000).
What the Florida Supreme Court did not really address in *D’Amario* was the issue of an indivisible injury, like death. This outcome is different from a jury not being able to apportion damages. Even though the *Nash* case did involve a death, the Court never addressed the nature of that injury—death and how it might impact an enhanced injury analysis. Instead, death is a non-enhanced injury. You are either dead, or you are not dead. Other Florida courts have previously held that death is an indivisible injury. 236 Out of state cases, even in an enhanced injury crashworthiness situation, have found that the issue of death is an indivisible injury not capable of apportionment of fault. 237

It is a different burden of proof under Florida law, as recognized by the Supreme Court itself, of a more likely than not standard in determining whether a person died from the alleged negligence of a tortfeasor. 238 A corollary to this issue, concerning the indivisibility of a death as an injury, also relates to another issue which was not been addressed in Florida crashworthiness death cases. For example, an asserted defense by the manufacturer defendant could be that the crash was a “continuum”, or a single event, and not the type of situation, for example, as discussed in *D’Amario*’s legal fiction of successive tortfeasors distinguishing the first collision from the second collision.

The manufacturer, as a hypothesis, in a high speed rear-end motor vehicle crash might contend that the severity of the crash, perhaps in this hypothetical based upon a real case, was seventy-five mph and that the plaintiff died immediately upon the impact. There was no so-called second collision and therefore, crashworthiness principles did not apply. In *D’Amario*, one might remember there was a distinct period of time after the first crash but before the vehicle caught fire and the plaintiff was injured. 239 This is where the formerly discussed *Jackson* and *Sta-Rite* opinions are helpful in distinguishing the enhanced injury concept set forth in crashworthiness with pure apportionment of fault for the ultimate injury.

The Eleventh Circuit Court of Appeals at least touched upon this point, based on Florida law, in *Bearint v. Dorel Juvenile Group, Inc.* 240 This case involved the maker of a child restraint seat. 241 The co-defendant, Saturn Motors, argued there was a simultaneous event due to the crash. 242 The court held, despite *D’Amario*, that where there was a “simultaneous” so-called “enhanced injury,” the vehicle manufacturer could seek apportionment of fault with Dorel, the maker of the child seat, although the court did preclude Saturn from bringing into the suit the driver who caused the initial crash. 243 Alternatively, the *Bearint* court did allow Saturn, because it was a “simultaneous” event, whether it was an enhanced injury or not, to

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239. *D’Amario*, 806 So. 2d at 427.
240. 389 F.3d 1339 (11th Cir. 2004).
241. Id. at 1343–44.
242. Id. at 1344.
243. Id. at 1347.

https://lawpublications.barry.edu/barryrev/vol18/iss2/7
argue the death was really caused by the child seat manufacturer because there was but one crash which had occurred. In Bearint, Judge Barkett, a former Florida Supreme Court Justice, wrote as follows:

The Bearints argue that D'Amario requires the exclusion of all evidence of Saturn's fault in this case. They claim that the "triggering event that causes the product to be tested" in this case was not only the van colliding into the Saturn (and the Saturn colliding into the Chevrolet Tahoe in front), but also the collapse of the front seat due to its defective design. They contend that the collapse of the front seat in a rear-impact crash is so foreseeable that Cosco had a duty to design the Arriva to withstand that impact, just as Ford had a duty to design the relay switch and seat belt at issue in D'Amario to protect the car's occupants from a reasonably foreseeable car crash. And because the fault of the individuals causing the initial accidents was not at issue in D'Amario, Saturn's fault in causing the collapse of the front seat should similarly not be at issue in this case.

The Bearint's argument thus would distinguish the collapse of the Saturn front seat back as a separate "collision" from the collision of the Arriva with the front seat back as the Arriva rotated upwards. However, this characterization of events is a departure from the one taken by the Bearints throughout this case. The Bearints consistently characterized the impact of the front seat back with the Arriva as a single, simultaneous "enhanced injury" event. Under this characterization, the crashworthiness doctrine would only preclude evidence concerning the negligence of either driver, not the negligence of Saturn. It was not until the Bearints filed a supplemental memorandum supporting their motion to preclude evidence regarding settlement with Saturn that the Bearints argued that "Cosco should be precluded from attempting to blame Saturn."

7. The Florida Legislature in 2011 Explicitly Overrules D'Amario

In continuing its long journey to abolish joint and several tort liability in Florida, the Legislature in 2006 rewrote Florida Statute Section 768.81(3). Prior to that time the Legislature had partially abolished joint and several liability, at least as to non-economic damages, and had otherwise devised a very complicated formula for determining comparative fault joint and several liability for economic

244. Id.
245. Id. at 1347-48 (footnotes omitted).
damages. One would argue that even then the Legislature implicitly overruled D'Amario in this statute since it pertained to products liability actions.

In revising Chapter 768.81 in 2006, and totally eliminating even modified joint and several tort liability, the Florida Legislature clearly established as public policy for this state that everyone was responsible for their own percentage of fault in causing harm to another individual. This revision in 2006 was arguably consistent with putting the adverse tortfeasor who caused the first collision in a crashworthiness case on the verdict form, either directly when sued by a plaintiff or as a Fabre defendant, thus contradicting D'Amario. The 2006 revisions to 768.81(3) fully codified the Fabre v. Marin decision and its progeny. On the other hand, one could argue the reverse, ergo, that D'Amario v. Ford actually overruled Fabre v. Marin.

After fully reviewing the tapes and transcription of those legislative history tapes of what the Florida Legislature intended in 2006 with regard to Section 768.81(3), no light was shed on whether they intended to affect the D'Amario decision. Arguably, the 2006 revision of 768.81(3), coming after the 2001 decision in D'Amario, when the Legislature is presumed to have known about that Florida Supreme Court decision, meant it could have putatively established as public policy a different course of legal interpretation from the Supreme Court, and in effect implicitly overruling D'Amario. But crashworthiness and D'Amario were never mentioned. Thus, the argument lacked any substantial traction.

Having all potentially at fault parties on the verdict form is clearly consistent with the public policy of Florida, established by the Florida Legislature, that everyone must be responsible for their own actions. Therefore, the existence of an adverse driver who causes the first collision, regardless of a claim of second collision or enhancement of injury, and irrespective of the fact that the tortfeasor causing the accident may have been drunk, does not mean there cannot still be apportionment of fault for the injuries, enhanced or otherwise.


249. The Legislative history of the 2006 revision is unfortunately a mish mash of arguments. Their end result is clear, how they got there is not. Fla. S. transcript of proceeding at pages 3, 4 (Mar. 30, 2006) (tape recording available at Fla. Dept. of State, Div. of Archives, Tallahassee, Fla.) (Senate Floor, Third Reading, Debate and Vote on HB 145); Fla. S., transcript of proceedings at page 13 (Mar. 29, 2006) (tape recording available at Fla. Dept. of State, Div. of Archives, Tallahassee, Fla.) (Senate Floor, Second Reading and Debate on HB 145). No doubt, however, products liability cases were expected to be included in the 2006 change. See H.B. 145, March 29, 2006, unofficial tr. at 13 (time 3:07:58); Senate Debate, March 30, 2006, unofficial tr. at 3, 4 (time mark 45:40).

250. See supra note 249.

251. Contra, State ex rel. Housing Auth. of Plant City v. Kirk, 231 So. 2d 522 (Fla. 1970) (changing in construction placed on the statute by the courts, must be in unmistakable language). However, it is also presumed as a matter of construction that the Legislature knows of a previous Supreme Court interpretation of a statute when it reenacts or revises a particular statute. See Davis v. Simpson, 313 So. 2d 796 (Fla. Dist. Ct. App. 1st 1984); Peninsular Supply Co. v. C. B. Day Realty of Fla., Inc., 423 So. 2d 500 (Fla. Dist. Ct. App. 3d 1982).

The revisions to Chapter 768.81(3) in 2006 were, yet, consistent with footnote two of the D'Amario decision. That footnote referred to the possibility of the plaintiff himself, or herself, being responsible for causing their own first collision accident and therefore, being able to be placed on the verdict form to reduce potential fault of the manufacturer. Thus, it would certainly be logical that the Court's caveat in D'Amario could only have been properly read or restrictively applied to a plaintiff's comparative negligence. It could also include, arguendo, the third party tortfeasor who caused the so-called first accident. If footnote two in D'Amario had been read as restrictively so as not to allow the first party tortfeasor to be either part of the suit as a cross-claimant, initially sued by the plaintiff, or even a Fabre defendant, then all persons would not be equal before the law in violation of Section II of the Florida Constitution. If the plaintiff's own fault could be used to apportion fault in a crashworthiness case, then why not a third party tortfeasor? In comparative negligence analysis it does not seem to make a difference whether the comparative fault was on the part of the driver, who happened to be a plaintiff, or an adverse third party tortfeasor driver who was a co-defendant. Both create the first collision leading to the referenced crashworthiness second collision and putative enhanced injuries.

However, all this esoteric conjecture was clearly put to rest by the Florida Legislature in 2010. As a result of heavy lobbying on both sides of the issue, including adverse public policy implications cause by D'Amario, the Legislature again amended Florida Statute Section 768.81(3). This time it reconfirmed that Florida is a pure pro rata comparative fault state. More importantly, their expressed legislative intent—so there would no misunderstanding or uncertainly as in 2006—specifically stated one purpose of the revisions was the overruling of D'Amario. The statute now expressly applied to crashworthiness cases by name and reaffirmed Fabre, which required all those responsible for a crash be put on the verdict form.

In no unmistakable terms the Legislature's revisions to 768.81(3) in 2010, becoming effective in 2011, abolished, overruled, and struck down D'Amario. That statute reads in pertinent part:

Be It Enacted by the Legislature of the State of Florida:

768.81  Comparative fault.

253. FLA. STAT. § 768.81(3) (2006); D'Amario v. Ford Motor Co., 806 So. 2d 424, 426 n.2 (Fla. 2001).
254. D'Amario, 806 So. 2d at 426 n.2.
255. FLA. CONST. art. I, § 2.
256. See Williams v. Davis, 974 So. 2d 1052, 1061 n.10 (Fla. 2007) (Florida has adopted pure comparative negligence).
257. Wells, supra note 1, at 14.
258. FLA. STAT. § 768.81 (2010).
259. Id.
261. Wells, supra note 1, at 16.
262. FLA. STAT. § 768.81 (2010).
(1) DEFINITIONS. As used in this section, the term:

(a) "Accident" means the events and actions that relate to the incident as well as those events and actions that relate to the alleged defect or injuries, including enhanced injuries.

(c) "Negligence action" means, without limitation, a civil action for damages based upon a theory of negligence, strict liability, products liability, professional malpractice whether couched in terms of contract or tort, or breach of warranty and like theories. The substance of an action, not conclusory terms used by a party, determines whether an action is a negligence action.

(d) "Products liability action" means a civil action based upon a theory of strict liability, negligence, breach of warranty, nuisance, or similar theories for damages caused by the manufacture, construction, design, formulation, installation, preparation, or assembly of a product. The term includes an action alleging that injuries received by a claimant in an accident were greater than the injuries the claimant would have received but for a defective product. The substance of an action, not the conclusory terms used by a party, determines whether an action is a products liability action.

(3) Apportionment of damages. In a negligence action, the court shall enter judgment against each party liable on the basis of such party's percentage of fault and not on the basis of doctrine of joint and several liability.

(b) In a products liability action alleging that injuries received by a claimant in an accident were enhanced by a defective product, the trier of fact shall consider the fault of all persons who contributed to the accident when apportioning the fault between or among them. The jury shall be appropriately instructed by the trial judge on the apportionment of fault in products liability actions where there are allegations that the injuries received by the claimant in an accident were enhanced by a defective product. The rules of evidence apply to these actions.
Section 2. The Legislature intends that this act be applied retroactively and overrule *D'Amario v. Ford Motor Co.*, 806 So. 2d 424 (Fla. 2001), which adopted what the Florida Supreme Court acknowledged to be a minority view. That minority view fails to apportion fault for damages consistent with Florida’s statutory comparative fault system, codified in s. 768.81, Florida Statutes, and leads to inequitable and unfair results, regardless of the damages sought in the litigation. The Legislature finds that, in a products liability action as defined in this act, fault should be apportioned among all responsible persons.

Section 3. This act is remedial in nature and applies retroactively. The Legislature finds that the retroactive application of this act does not unconstitutionally impair vested rights. Rather, the law affects only remedies, permitting recovery against all tortfeasors while lessening the ultimate liability of each consistent with this state’s statutory comparative fault system, codified in 768.81, Florida Statutes. In all cases, the Legislature intends that this act be construed consistent with the due process provisions of the State Constitution and the Constitution of the United States.263

The law was made retroactive.264 Ultimately, this legislation is assuredly headed to the Florida Supreme Court. Four out of five Circuit Court judges have upheld its validity as to the retroactivity of the statute.265 However, these 2011 revisions to 768.81(3), even by putting a legislative dagger in *D'Amario*’s heart, did not do away with the crashworthiness enhanced injury concept—only how procedurally these types of cases would be tried.

The Florida Legislature put Florida back in line with a majority of other jurisdictions across the country in terms of apportionment of fault in crashworthiness cases.266 Other state courts, consistent with the 2011 revisions of 768.81(3), had already found *D'Amario* unpersuasive.267 For example, a Hawaiian court in *Dannenfelser v. Daimler Chrysler Corp.*268 held as follows:

Thus, in keeping with the precedent of the Hawaii Supreme Court, the California Supreme Court, and the majority of other jurisdictions, the Court finds that Defendant may indeed assert a

263. Id. (emphasis added)
264. Id.
defense of comparative negligence to Plaintiffs negligence and strict liability claims regarding the injuries stemming from the "second collision." Having reached that conclusion, however, the Court notes that the Rules of Evidence still apply, and any evidence of negligence on the part of Plaintiff that is wholly irrelevant to the issue of the allegedly enhanced injuries would be properly excluded.

Determining which evidence of negligence is relevant to the causation of the enhanced injuries is a highly fact-specific inquiry, however. Indeed, this is precisely the difficulty that makes holdings such as D'Amario, which seek to broadly exclude evidence of comparative fault regarding the underlying collision from the lawsuit regarding the allegedly enhanced injuries, so problematic.269

8. Confusion in Burden of Proof in Crashworthiness Cases: Reason to Abolish Enhanced Injury Theory

A debate has raged across the country for over thirty years, leading to a split of authority over what the burden of proof level is to establish an enhanced injury in a crashworthiness case.270 A brief review of this evidentiary debate is necessary in further arguing for the abolishment of crashworthiness. The opposing camps break down between those referred to as the Huddell-Caizzo or Fox-Mitchell advocates.271

Huddell v. Levin first established criteria for specifying the burden of proof in enhanced injury cases.272 That court, in a diversity case, was applying New Jersey law.273 Huddell stated enhanced injury cases "require a highly refined and almost invariably difficult presentation of proof."274 Yet, the decision did not set forth how specific elements of proof were to be proven.275

Essentially, Huddell said it was a plaintiff's burden to demonstrate a practical alternative safer design, which if it had been used would not have prevented the enhanced injury, and then some probable methodology was required for the connecting of the enhanced injury to the alleged defect.276 A submitted underlying rationale for Huddell was that a crashworthy defendant and the first collision tortfeasor were not considered joint or concurring tortfeasors for liability purposes.277 This conclusion was different from the D'Amario holding. Thus, a

269. Id. at 1096-97
270. See Chadwick, supra note 57, at 1238–57; Vickles & Oldham, supra note 34, at 426–35, 440–44.
271. Vickles & Oldham, supra note 34, at 440–43.
272. 537 F.2d 726, 733 (3d Cir. 1976).
273. Id.
274. Id. at 737.
275. Id. at 737–38.
277. Huddell, 537 F.2d at 738.
plaintiff had the burden to *apportion* out what was the enhanced or second collision injury from that which would have been caused by the first collision anyway. If a plaintiff was not able to achieve this burden, the manufacturer defendant would prevail.

A concurring opinion in *Huddell* suggested that the majority had imposed too onerous a burden of proof on the plaintiff to establish the enhanced injury. The dissent asserted that the person causing the initial accident (first collision), and the motor vehicle manufacturer allegedly causing the enhanced injury (second collision), should be treated as "concurrent tortfeasors." Thus, under the concurrence, a plaintiff would need only to prove a causal link to the injury from the alleged defect. Thereafter, the burden (of persuasion) of proving up the enhanced injury separated from whatever the injury was or would have been from the first accident and then transferred to the crashworthiness defendant since this proof was no different from that faced by concurring tortfeasors under the *Restatement (Second) of Torts* Section 533B(2) (1965). If the manufacturer, as the second collision defendant, could not separate out the concurring or enhanced injury from the first and second collision in a crashworthiness case, that manufacturing defendant would then be saddled with *all* the damages flowing from the injury.

Following *Huddell*, a later Second Circuit decision, *Caizzo v. Volkswagenwerk, A. G.*, which analyzed New York law, held that a plaintiff "should be required to prove the extent of the enhanced injuries attributable to the defective design." The plaintiff would be required to prove the actual nature and extent of the injuries which were enhanced by the alleged defective crashworthiness design. The plaintiff under this decision would have the burden to prove how the alleged crashworthiness defect created the enhanced or greater injury from the one that caused the first accident.

The *Huddell-Caizzo* approach, in regards to how one goes about proving up an enhanced injury, is now presently recognized as a *minority* position. There have been numerous law review articles over the years identifying those jurisdictions

278. *Id.* at 739.
279. *Id.* at 744 (Rosenn, J., concurring).
280. *Id.*
281. *Id.* at 738.
282. *Id.* at 745. Florida's Standard Jury Instructions on concurrent tortfeasor states as follows:

In order to be regarded as a legal cause of [loss] [injury] [or] [damage], negligence need not be the only cause. Negligence may be a legal cause of [loss] [injury] [or] [damage] even though it operates in combination with [the act of another] [some natural cause] [or] some other cause if such other cause occurs at the same time as the negligence and if the negligence contributes substantially to producing such [loss] [injury] [or] [damage].

FLA. STD. JURY INST. § 5.1(b) Legal Cause (proximate, concurring, intervening cause).
283. 647 F.2d 241 (2d Cir. 1981).
284. *Id.* at 250.
285. *Id.*
286. *Id.* at 251.
that have followed Huddell-Caizzo. In adopting Florida's version of crashworthiness law in terms of liability for fault in 2001, D'Amario followed the minority views of states like South Carolina, Arizona, and Iowa. Both South Carolina and Iowa have been identified as jurisdictions in the Huddell-Caizzo camp on the burden of proof issue which represents, in turn, the minority position on this issue.

The Fox-Mitchell line of cases took their origin and theoretical underpinnings from the concurring opinion in Huddell. Fox v. Ford Motor Co., decided under Wyoming law, which studied the issue of enhanced injury and articulated a different, but lesser standard of proof than Huddell required. The Fox decision applied to principles of joint and several liability to determine causation in crashworthiness cases, in essence treating the first collision and second collision defendants as concurrent tortfeasors. The court in Fox analogized its rationale of concurrent tortfeasors with the situation of an active and passive tortfeasor recognized in the Restatement (Second) of Torts, Section 433.

Analytically, a plaintiff's burden of evidentiary proof of the enhanced injury under Fox was to prove that the alleged defect contributed to the total injuries. The burden then shifted to the manufacturer/defendant to apportion out those injuries between the first and second collision. However, if the manufacturer could not then separate out the injuries, they became responsible for all damages. Fox also recognized that even in crashworthiness cases there may still be injuries which were indivisible, and could not be separated out, such as death. Therefore, the manufacturer would be liable for the full damages of those categories of injuries that could not be apportioned.

Mitchell v. Volkswagenwerk, A.G. followed Fox applying Minnesota law and holding that a plaintiff need only establish that the design defect was a "substantial factor" in causing the injury. The burden of persuasion would then shift to the manufacturer who became responsible for separating out the initial injuries from the enhanced injuries, if possible. Initially, the Fox-Mitchell evidentiary establishment was not followed by many jurisdictions. Now, however, it is considered to be the majority position.

The Florida Supreme Court recognized and adopted the Restatement (Second) of Torts on Products Liability, Section 402A, for strict liability in West v.
The Second Restatement did not, however, address the burden of proof for enhancement of injuries in crashworthiness cases. The *Restatement (Third) of Torts*, established by the American Law Institute (ALI), attempted to set forth a standard for the burden of proof in enhanced injury crashworthiness cases. In an analysis leading up to the Third Restatement expression of the burden of proof the reporter reviewed both the majority and minority approaches to proving up enhanced injuries. The Third Restatement ultimately adopted the evidentiary rationale followed by *Fox-Mitchell* as it was believed to be the majority position of the country’s jurisdictions.

The ALI treated the issue of enhancement of injury in crashworthiness cases as an adjunct of the joint tortfeasor law and then framed the issue as one of “increased harm.” This rule followed the Second Restatement section 432B(2), first cited in the concurring opinion in *Huddell*, which addressed apportionment of fault or liability between multiple tortfeasors when causing the same harm. The Third Restatement stated, adopting *Fox-Mitchell*, a plaintiff only had to demonstrate the alleged crashworthiness defect was a substantial factor in causing the “increased harm.” If that increased harm could not then be separated from other causes of the injury, (i.e., a tortfeasor driver), the manufacturer would become jointly and severally liable for all of the harm, injuries or damages established. And, as a deep pocket, the author would note, it would be the entity most likely to pick up the entire damages tab.

No Florida appellate court cases have been found where either *Huddell-Caizzo* or *Fox-Mitchell* was cited for the burden of proof in a crashworthiness case, including *D’Amario*. Nevertheless, the Reporter for the Third Restatement forecasted that Florida, once it decided, would be projected as one of “those states whose law either supports, or is strongly leaning toward the majority view [*Fox-Mitchell*].” In 1998 when the Third Restatement was first published, *D’Amario* had not yet been decided. To support its position here the Third Restatement relied on a pre-*D’Amario* federal diversity decision for how Florida might ultimately decide the issue of burden of proof in crashworthiness cases. The case was *McLeod v. American Motors Corp.*

*McLeod* involved a case where there was an allegation that “the front seat track assembly caused [the plaintiff] to sustain serious injuries in an auto accident.” The crash occurred when a woman driving an American Motors Corporation...
Pacer attempted to avoid a drunk driver by swerving and slamming on her brakes, but there was still a head-on collision. A defective bolt on the front seat was alleged to have broken before the impact due to the sudden braking and the dog hitting the rear of the front seat. In conjunction with the Great Dane being thrown forward and the driver braking, the plaintiff was propelled into the steering wheel and front windshield. McLeod, in deciding the case on its facts, found no Florida precedent for dealing with apportionment of injuries in a crashworthiness case. The federal court, projecting what a Florida state court might do, affirmed a verdict for the plaintiff based on the correctness of a concurring cause jury instruction. AMC’s defense was that the drunk driver and plaintiff were the 100% cause of all the injuries.

McLeod viewed injury enhancement as a concurrent cause tort. Thus, the plaintiff under McLeod only had to demonstrate that the alleged defect "substantially contributed" to producing her injuries, whatever they were. The burden of persuasion then shifted to the defendant, AMC, to apportion or separate out the enhanced injuries from the non-enhanced injuries. In McLeod, AMC was not able to do that, or prove that injuries from the first or second collision were divisible between the two concurring tortfeasors. Once decided in D’Amario, the Florida Supreme Court held that a crashworthiness defendant, to the contrary, was not a concurring tortfeasor with the initial tortfeasor at fault for the first collision. D’Amario stated:

However, it is not entirely clear that our holding in Fabre resolves the question presented today since Fabre involved a simple automobile accident involving joint and concurrent tortfeasors, and did not involve successive tortfeasors or enhanced or secondary injuries allegedly stemming from a manufacturing or design defect.

However, McLeod also recognized that Florida had a successive tortfeasor rule, as D’Amario ultimately analyzed a crashworthiness claim to be. The McLeod court stated that “Florida law apparently holds that in successive injury cases the

314. Id.
315. Id.
316. Id.
317. McLeod, 723 F.2d at 832.
318. Id. at 834.
319. Id.
320. Id. at 832.
321. Id. at 834.
322. McLeod, 723 F.2d at 834.
323. Id. at 833–34.
324. Id. at 835.
325. D’Amario, 806 So. 2d at 441.
326. Id. at 435 (emphasis in original and added).
327. McLeod, 723 F.2d at 834.
jury should be allowed to apportion damages between the defendants; however, if damages are not reasonably apportionable, plaintiff may recover the full amount from either of the two defendants." McLeod cited Washewich v. LaFave, which was a successive tortfeasor case not cited in D'Amario, although the Florida Supreme Court in the later case analogized crashworthiness liability to a successive tortfeasor occurrence. In Washewich, a plaintiff was thrown from a vehicle as a result of an automobile collision and then separately run over by the defendant. The court held:

[W]here the evidence reveals two successive accidents, and the defendant is only responsible for the second accident, the burden is on the plaintiff to prove to the extent reasonably possible what injuries were proximately caused by each of the two accidents. . . . [B]ut if an apportionment is impossible, the jury may be authorized to charge the defendant with all damages flowing from the entire injury.

McLeod also relied on an old Florida Fifth Circuit case, Smith v. Fiat-Roosevelt Motors, Inc. Smith reversed a summary judgment for a defendant even though the plaintiff was not able to apportion injuries between the initial rear-end collision and those which may have been caused by an alleged defect that allowed the seatback to recline or collapse rearward during the impact. The Smith decision turned on a concurring cause instruction given from Florida's Standard Jury Instruction that "where an injury is indivisible and apportionment is impossible, [the] plaintiff may recover his entire damages from either tortfeasor." In other words, a crashworthiness defendant was a concurring tortfeasor who acts as a causative factor with the fault of the first tortfeasor initiating the accident. Not reaching this precise evidentiary issue, referring to McLeod, the Northern District of Florida in Humphreys v. General Motors Corp. observed:

At this point, the Court makes no determination as to whether Plaintiffs' bear the burden of proving the exact amount which Mrs. Humphreys' injuries were "enhanced" by the alleged defect. The parties dispute vigorously whether this is an "enhancement of injuries" case where the reasoning of [Huddell] should apply. At this point, the Court is inclined to agree with Plaintiffs that under [McLeod] Plaintiffs are not obligated to follow Huddell's

328. Id.
330. D'Amario, 806 So. 2d at 435.
331. Washewich, 248 So. 2d at 671.
332. Id. at 672–73.
334. Id. at 729.
335. Id.
requirement that they prove, essentially through expert testimony, the precise extent to which the alleged defect enhanced the injuries caused by the collision. . . . Under these circumstances, whether Plaintiffs bear the extra burden under \textit{Huddell} is moot.\textsuperscript{337}

The Third Restatement was apparently correct in projecting where Florida law was as of the time of its 1998 publication—that a crashworthiness defendant was a concurrent tortfeasor with the party causing the initial accident. What they could not foresee was the Florida Supreme Court, three years later, analyzing crashworthiness cases not in terms of joint and several liability or concurring tortfeasors—quite to the contrary to what became the Third Restatement position reaching a different result.\textsuperscript{338} That is to say, in \textit{D'Amario} they were instead successive tortfeasors.


In \textit{D'Amario}, for crashworthiness cases, the Court flippantly dealt with the issue of an indivisible injury.\textsuperscript{339} For example, at footnote 16 the Florida Supreme Court stated:

\begin{quote}
We recognize that in some cases the jury may not be able to separate the damages from the initial and secondary collisions. Should such an event occur, the parties should resort to established precedent in that area of the law.\textsuperscript{340}
\end{quote}

The Arizona Supreme Court in \textit{Larsen v. Nissan Motor Co.}, elaborated on this concept by stating:

Thus in an indivisible injury case, the factfinder is to compute the total amount of damage sustained by the plaintiff and the percentage of fault of each tortfeasor. Multiplying the first figure by the second gives the maximum recoverable against each tortfeasor. This result conforms not only with the intent of the legislature and the text of the statute but also with common sense. When damages cannot be apportioned between multiple tortfeasors, there is no reason why those whose conduct produced successive but indivisible injuries should be treated differently from those whose independent conduct caused injury in a single accident. . . . Thus, as in cases like this and \textit{Zuern}, where “there has been a chain of cause and effect that produces injury in a single

\textsuperscript{337} \textit{Id.} at 828 n.7 (citations omitted).
\textsuperscript{338} See \textit{D'Amario}, 806 So.2d 424.
\textsuperscript{339} \textit{Id.}
\textsuperscript{340} \textit{Id.} at 440 n.16.
accident,” our supreme court has now adopted a rule for indivisible injury cases under which damage awards are based on allocation of percentages of fault.\(^{341}\)

To support its position on indivisible injuries in crashworthiness cases, the Florida Supreme Court cited \textit{Gross v. Lyons} in its \textit{D'Amario} holding.\(^{342}\) This reliance on \textit{Gross}, however, causes a number of problems. First, the central issue in \textit{Gross} was whether to extend the rule of successive tortfeasor non-apportionment of damages to a “prior tortfeasor”\(^{343}\) not to a successive tortfeasor as \textit{D'Amario} had analogized was a second collision enhanced injury.\(^{344}\) The \textit{Gross} court did, however, review the indivisible injury rule and why a subsequent tortfeasor was responsible for the entire set of damages if a jury could not apportion between one event, and a later occurring second event. This doctrine was originally enunciated in \textit{C. F. Hamblen, Inc. v. Owens}, which held that a subsequent tortfeasor was responsible for everything if the jury was unable to apportion the damages.\(^{345}\) \textit{Gross} also cited with approval the Fourth District’s decision in \textit{Washewich v. LaFave}, already discussed.\(^{346}\)

\textit{D'Amario}, in this reference to \textit{Gross}, incorrectly applied the successive tortfeasor rule of indivisible injury to the circumstances of a crashworthiness case by its footnote directive.\(^{347}\) For example, \textit{Gross} stated as follows:

\begin{quote}
The rule of \textit{Hamblen v. Owens} has as its purpose the prevention of a subsequent wrongdoer from escaping responsibility where his conduct contributed to the creation of the situation in which the problems of apportionment arose.\(^{348}\)
\end{quote}

This referral to \textit{Hamblen} by \textit{Gross}, the latter case cited as controlling by \textit{D'Amario} in certain situations,\(^{349}\) was specifically contrary to the underlying rationale of the crashworthiness doctrine.\(^{350}\) This was because crashworthiness tortfeasors had nothing to do with causing or creating the first collision or accident, the so-called non-enhanced injury.\(^{351}\) \textit{Gross} was the exact flip side of the coin. They were not going to let off the hook a subsequent tortfeasor’s responsibility vis-à-vis the first or prior tortfeasor. Therefore, the rationale behind \textit{Gross} and the indivisible injury rule was specifically contrary to the underlying rationale of

\footnotesize{
\textsuperscript{341} Id. at 123 (citing Piner v. Superior Court In & For County of Maricopa, 962 P.2d 909, 916 (Ariz. 1998)).

\textsuperscript{342} Gross v. Lyons, 763 So. 2d 276 (Fla. 2000).

\textsuperscript{343} Id. at 279.

\textsuperscript{344} See generally \textit{D'Amario}, 806 So. 2d 424.

\textsuperscript{345} 172 So. 694 (Fla. 1937).

\textsuperscript{346} 248 So. 2d 670 (Fla. Dist. Ct. App. 4th 1971).

\textsuperscript{347} \textit{D'Amario}, 806 So. 2d at 442. n.20.

\textsuperscript{348} Gross, 763 So. 2d at 278 (quoting \textit{Washewich}, 248 So. 2d at 673).

\textsuperscript{349} See \textit{D'Amario}, 806 So. 2d 424.

\textsuperscript{350} Id.

\textsuperscript{351} Id.
}
D’Amario and the first accident tortfeasor not being a part of a crashworthiness case.352

There is another compelling reason a crashworthiness reference to Gross was misplaced. One sub-heading from the D’Amario opinion stated: “No Liability for Initial Accident.”353 The court thus held, as a matter of law, that “successive tortfeasors [could] only be held liable [in crashworthiness cases] for the damages they cause, and not be held liable for the damages caused by the initial tortfeasor. We agree with this . . . .”354 The indivisible injury rule, supposedly set out in Gross v. Lyons, however, was patently inconsistent with the statement of separation of liability between a first collision and a second collision event.355 This Gross rationale, if applicable, compelled a result where a first collision tortfeasor could not be connected to an injury-enhancing second collision case to reduce fault. Yet, at the same time the second collision (crashworthiness) defendant could be held liable for even non-enhanced injuries which were not apportionable and were caused by the first tortfeasor. This constituted a fatal flaw and irreconcilable difference between Gross v. Lyons and crashworthiness cases.

Gross also cited section 433A of the Second Restatement which allowed for non-apportionment of damages attributed to one defendant where two or more defendants combine to produce a single harm, i.e., concurrent tortfeasors.356 Contrary to the Gross citation, an injury-enhancing harm in a crashworthiness case was not a single harm at all. Courts specifically separated out the first collision from the second collision—there were no single confluences of accidents to result in a single harm.357 D’Amario’s own language seemed to compel a contrary conclusion from that of Gross regarding whether a crashworthiness enhanced injury could even be indivisible in the first place.358 This could be seen from the D’Amario’s statement that crashworthiness liability “is predicated upon the existence of a distinct and second injury caused by a defective product, and assumes the plaintiff to be in the condition to which he is rendered after the first accident.”359

A more incompatible point of application to the indivisible rule in crashworthiness cases by D’Amario at footnote 16 needs to be illustrated. Despite this apparent inconsistency in citing Gross, even if damages could not be apportioned, how could Gross apply since by the point of verdict only the car manufacturer is the defendant? Under D’Amario there could be no Fabre defendants such as the initial tortfeasor.360 So who was to even consider apportionment between either concurrent, successive or subsequent tortfeasors, at least under the D’Amario rule? As stated above, the manufacturer had to absorb

352. See Gross, 763 So. 2d 276; see also D’Amario, 806 So. 2d 424.
353. D’Amario, 806 So. 2d at 439.
354. Id.
355. Gross, 763 So. 2d at 279.
356. Id.
357. See generally D’Amario, 806 So. 2d 424; Washewich, 248 So. 2d 670.
358. D’Amario, 806 So. 2d at 436–37.
359. Id.
360. Id. at 435.
liability for the first collision which on the other hand D'Amario held expressly the manufacturer could not be liable for.

Gross v. Lyons stated that to impose total liability on a single defendant for a single harm when unable to apportion damages was not inconsistent with then section 768.81(3) of the Florida Statutes, or with Fabre v. Marin, on apportionment of fault. Gross then went on to state that the indivisible injury rule and the apportionment of damages based on fault are not mutually exclusive to one another. Before the 2011 Amendment overruling D'Amario, that court specifically rejected the application of Fabre's apportionment of fault in second collision and enhanced injury crashworthiness case. D'Amario held that being able to apportion fault between injury causing tortfeasors were two mutually exclusive concepts. Thus, the holding in Gross v. Lyons also seems to be in jeopardy since section 768.81(3), and D'Amario's otherwise inconsistent reference to Gross, for other reasons, should not survive the new law on these points either.

The Third Restatement recognized the indivisible injury rule and the difficulty in apportioning damages between first and second collisions. That was a basis for the drafters' adoption of the Fox-Mitchell approach. Of course, the Third Restatement had already adopted the majority position on comparative fault principles, which D'Amario rejected, being applicable for apportioning fault in crashworthiness cases. Thus, in a crashworthiness case, for the indivisible injury rule to apply, apportionment of fault must be permitted under section 768.81(3) (2011) and Fabre. The problem was: how is this to be done?

10. The Crashworthiness Enhanced Injury Doctrine—Abolish it in Florida

With the passage of 768.81(3) in 2011 specifically overruling D'Amario on the issue of including, under Fabre, for example, a drunk driver, could be put on the verdict form to apportion fault. Yet, the state of crashworthiness law in Florida remains a ball of confusion. Perhaps better said, it remains a conundrum wrapped up in an enigma.

After more than four decades, the crashworthiness doctrine, which includes proving an enhanced or increased injury over and above what would have been suffered by a motor vehicle occupant but for the defect, has outlived its necessity. It is an arbitrary and capricious evidentiary theorem and legal fiction, subjectively espoused by injury mechanism experts for both plaintiffs' and defense attorneys, the latter representing motor vehicle manufacturers.

361. Gross, 763 So. 2d at 279.
362. Id.
364. Id. at 440.
365. Supra note 301.
366. Id.
367. See Ricci et al., supra note 10, at 14.
368. FLA. STAT. § 768.81.
For the state of Florida, considering the advent of the 2011 legislation of 768.81(3) which, legislatively overruled *D'Amario v. Ford*, an alternative legal standard for these motor vehicle crashworthiness cases needs to be established, irrespective of what the Florida Supreme Court may do if the revised 768.81(3) comes before it on any aspect of the litigation, i.e., retroactivity. Judicial changes are possible since crashworthiness is a judicially created concept.

Pure apportionment of fault as espoused in 768.81(3) (2011) is the public policy of Florida. If a drunk driver, likely without insurance, slams into the rear of a motor vehicle and occupants’ front seats deform rearward as the claimed crashworthiness defect, whoever is responsible for the share of the injuries will be apportioned by percentage. Public policy of who has insurance, deep pockets, or who can pay is an antithesis to our structured society, at least in theory.

Apportionment of fault is not a bad concept. Everyone takes responsibility for his or her own conduct. If that conduct causes motor vehicle crash injuries, then that person must step up and own that liability. Really nothing has changed from the *D'Amario* rule. Under that case decision juries still had to apportion fault—who caused the enhanced, or as the Third Restatement called it, “increased harm.” The only difference was that the tortfeasor, drunk or otherwise, was not on a verdict form under *Fabre v. Marin*, or then 768.81(3) (2006), so that a line percentage of fault to that person could be filled in. Yet the jury, probably somewhat unfairly to defendant manufacturers, had to say whether or not the injuries and damages were from that first collision, i.e., severity of crash, or from the alleged second collision defect in the motor vehicle which caused the enhanced injury, i.e., broken seatback, seatbelt issue, or post crash fuel fed fire.

In 1968 when the enhanced injury legal fiction of a duty for manufacturers to make their vehicles reasonably safe from the so-called second collision between the occupants and the interior of the vehicle, there was a need for this made up legal precept. But, thousands of lawsuits later with motor vehicle manufacturers competing in the marketing field using “safety” as a hook, a much more regulated industry by NHTSA, regulations upgrading safety features in motor vehicles that are mandatory have, in this author’s view, made the enhanced injury crashworthiness doctrine legal theorem last breath to become obsolete. In essence, time for the junk heap of crashed motor vehicles.

The whole concept of crashworthiness first espoused in *Larsen* was based on an amateurish understanding of motor vehicles. A crashworthiness claim does not always deal with the occupant hitting some interior of the vehicle, like Dr. Huddell contacting the unfriendly head restraint. In a post-crash fire case like *D'Amario*, the plaintiff never hits anything in the vehicle itself that caused the operative enhanced injury. But when injuries in crashes do occur, as noted earlier, they happen faster than the eye can blink.

370. See Fabre, 623 So. 2d at 1187.
371. See D’Amario, 806 So. 2d 424.
372. HYDE, supra note 220.
So how is the proverbial jury of one's own peers able to figure out this complex web of physics, biomedical engineering, engineering, and things such as a plaintiff's attorneys’ presentation of fault tree analysis or a failure mode analysis? Not always accurately for sure. An argument that the traditional common law jury system may not be suited for such matters will have to await some other day for discussion.

But in Florida, a jury still has to apportion between injuries caused by the first collision and those that were enhanced or incurred by the so-called crashworthiness or second collision defect. Yet, since 1976 when the Florida Supreme Court ruled in Ford Motor Co. v. Evancho,373 some 36 years later the Florida Supreme Court still has yet to initiate jury instructions in crashworthiness cases to aid jurors in trying to cope with these concepts, and to overcome glazed over eyes of being lost, or worst yet, asleep after the afternoon lunch break.

As a follow-up, even after public input and after literally years of working on them, the Florida Supreme Court’s Bar Committee on Standard Jury Instructions has yet to provide the Court with acceptable crashworthiness jury instructions. So for all these years the trial courts, particularly after D’Amario, were left to their own devices to determine what, if any, non-standard instructions for crashworthiness cases might be given. The latest Florida Supreme Court’s abandonment of its duty on standard jury instructions occurred on May 17, 2012, when the Court adopted “tentatively” new instructions for strict liability and negligence separate failure to warn instructions.374 Yet, the Court again abrogated its guidance to adopt an instruction on crashworthiness and simply rejected the proposed instruction 403.16 brought forth by the Committee. In February of 2013, the Committee proposed the following instruction on crashworthiness: “[Claimant also] claims the [he] [she] sustained greater injuries that what [he] [she] would have sustained in the (describe the accident) if the (describe the product) had not been defective.”375 Yet, Florida juries and attorneys currently remain without any guidance from the Florida Supreme Court on what a jury might find in order to impose crashworthiness liability upon a defendant.

Consequently, Florida Statute 768.81(3) (2011), created pure apportionment of fault, per Fabre v. Marin, and specifically overruled D’Amario v. Ford, was not all that legally revolutionary—was more of a political choice of whose ox was being gored the most between the plaintiffs’ and defense bars!

So now that one has been brought to this conclusion, this article offers to replace the crashworthiness enhanced or increased injury rule in Florida with a new concept.

All potential parties involved who may have contributed to the crash and injuries—whomever they may be—if appropriate evidence is proffered, must be plead on the verdict form. The approach then is who is liable for the injuries and

373. Evancho, 327 So. 2d 201 (1976).
375. Jury instructions 403.2, 403.16.
damages? There is nothing enhanced about it. The injuries are the injuries, with the residual economic and non-economic damages which flow from them. The jury will have to decide who, among the culprits, are liable, or all of them, and to what extent. That is the way it has always been. And if they cannot make up their minds, then a mistrial must be declared. It cannot be like D’Amario’s reference to Gross v. Lyons in this situation which said, as earlier noted, if injuries could not be segregated then either party could be responsible for all of them. But this can be no more since that rationale is a joint and several liability concept, which in all its parts and iterations has been abolished in Florida.

Judicial direction and guideposts to juries on how to decide each party’s apportionment of fault are needed now. Even if indivisible injuries like death are involved, the apportionment decision can be applicable even though death is death and partial death or a percentage of death is not possible. But the jury is determining liability percentages, which then translates to how much of the damages, if any, arising from that death are attributed to each party. They are not dicing up the cadaver as a medical examiner.

The Florida Supreme Court needs to do two things. First, they should abolish the crashworthiness enhanced injury doctrine altogether. Second, they should promulgate some instructional guidelines to judges and juries in motor vehicle products liability cases where the alleged defect did not cause the initial crash, whatever it may be, but is alleged to have caused the injury.

But what, or better yet, how do you replace the crashworthiness, enhanced injury doctrine? And a more difficult question is what do you replace it with? The author’s proposal is not bulletproof or crash-proof to be more apropos. It does seem, however, to provide a viable alternative to an otherwise mixed up legal theory. On one hand, as things now stand, if a plaintiff can’t prove the enhanced injury and separate the first from the second, then he or she loses. On the other hand, elsewhere, if the enhanced injury can’t be separated from the initial injury, the manufacturer buys the entire farm. What then is the burden of proof? Is it a “substantial factor analysis” or a “more likely than not”?

For Florida, this proposal would be made simple. A plaintiff could still allege that a defect in a motor vehicle did not prevent injuries to a plaintiff, but not a defect which caused the accident. There would be only one injury—the final one, whatever it might be. Then the parties would use Florida’s Standard Jury Instructions, of the greater weight of the evidence, to determine causation. In these cases, concurrent or intervening cause instructions should not be given. Only the legal cause 5.1(a) instruction should be given. This should give the jury what it needs, like in any other case, a standard to determine fault of the first tortfeasor, Fabre or not, or the manufacturer.

However, there must be some criteria for a jury to determine whether an alleged defect exists which played an apportionable role in legally causing the ultimate injury. With such criterion the jury would be better able to apportion fault by percentage. Florida’s present definition of a defect as being unreasonably
dangerous either under a consumer expectation and/or risk liability, if one above the other adopted, is unfair to the other party. Thus, a new defect definition is offered, with some criteria to determine the question proposed.

A "defect" would be where the design or manufacture of the item (e.g., component, part) created an unreasonably dangerous environment to the occupant’s protection once the motor vehicle was involved in an accident, crash or impact. In determining if that defect criterion has been met, the following elements should be considered, not necessarily in this order:

1. Was the speed of the first crash a causative factor in creating the injury, and if so, does that fault goes to the first tortfeasor?
2. Did the safety device at issue, e.g., driver’s side airbag, operate and perform as the manufacturer intended it to based upon their development and testing?
3. Was the manufacturer’s safety device comparable to what other motor vehicle manufacturers were using at the time, or were other safety devices more sophisticated or better than the defendant was using, at least when the vehicle was first designed and developed?
4. Was the severity of the crash between the vehicle to vehicle, vehicle to object, or single vehicle crash so violent and severe that it overwhelmed the ability of the manufacture’s safety devices to offer reasonable protection?
5. Is there crash data available to help understand whether the type of crash involved creates the type of injury, or death, that occurred in the subject crash?
6. Have there been the same and nearly identical crashes which have occurred to other years of the model run vehicle in question with similar results, and if so did the manufacturer adequately review those crashes to ensure their design was operating as intended?
7. Did the vehicle comply with any applicable Federal Motor Vehicle Safety Standards?
8. Did other manufacturers’ similar types of vehicles have crashes with similar injury results so they jury can compare if the subject defendant’s vehicle was an outlier?
9. Prior similar incidences involving same design and/or model at issue in subject case.
10. Did the plaintiff present an alternative economically feasible design available to the manufacturer which, if used, would not have made the injuries as they were, or protected against them?

All of these guidelines are subject to the discretion of the trial judge, and reliant on the dynamics of the trial and the evidentiary record, to be appropriate to be given. And they are not exhaustive. These instructions would help the jury weigh the comparative fault of the parties when a manufacturer is included in what formerly would be a pure plaintiff crashworthiness case.
These simple criteria should take the place of the present jury instructions of defective and unreasonably dangerous under either or both the consumer expectation test or risk utility analysis.\textsuperscript{377} Force v. Ford Motor Co. held that with seatbelts there was knowledge or expectation by the consumer.\textsuperscript{378} But no average consumers, or very few, have any idea of how a seatbelt really locks up, or how pretensioners or web clamps work, for example. Or, for that matter any expectation of how people get injured in motor vehicle crashes. So both these criteria for what is unreasonably dangerous should be discarded for pure common sense elements.

**CONCLUSION**

The focus of the Florida Supreme Court should not now be whether the Legislature overstepped its boundaries with the passage of 768.81(3) (2011) overruling D'Amario with respect to apportionment of fault, but to intellectually deal with the totality of the crashworthiness enhanced injury worn out doctrine that has handcuffed the proper decision-making in crashworthiness cases by abolishing the doctrine itself, and setting the path of the law in Florida on a bolder, more realistic path of responsibility.

\textsuperscript{377} FLA. STD. JURY INST., 403.7.