

PRODUCT LIABILITY UPDATE: DEVELOPMENTS SINCE ADOPTION OF THE “NEW” PENNSYLVANIA RULES OF EVIDENCE

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INTRODUCTION AND OVERVIEW

In May 1998, the new Pennsylvania Rules of Evidence were adopted by the Pennsylvania Supreme Court.² This article discusses the application of these rules to a section 402A products liability action given recent decisions in expert witness testimony and substantive law.³ For those new to this area, the article attempts to provide a conceptual overview and understanding of Pennsylvania products liability litigation. For those regularly practicing in this area, it seeks to provide an update regarding recent decisions, with discussion of proofs, case strategy and motion practice.

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² The Pennsylvania Rules of Evidence were adopted on May 8, 1998 by the Pennsylvania Supreme Court. They became effective on October 1, 1998.

³ This article does not discuss product negligence or breach of warranty claims. It also does not discuss Section 402B claims. Such matters are often included in original claims. However, in many cases, the products liability action will proceed to trial solely on a strict liability claim. In some instances, negligence matters will necessarily be included with regard to some defendants, while strict liability claims proceed against others. In such circumstances, there are considerably more issues presented, making the case obviously much more complex. *See, Harsh v. Petroll*, J-56-2005 (Pa 11/23/05)(affirming \$8.2 million Lancaster County verdict involving the death of a couple and their infant son, rear-ended by another car, causing their near-stationary Lumina to burst into flames).

Since the New Rules were adopted, Pennsylvania law regarding expert witness qualifications under Pennsylvania Rule of Evidence 702 has crystallized into a more predictable arena. Several key decisions, culminating in *Grady v. Frito-Lay*⁴ in 2003, shape the present state of Pennsylvania products liability law; these decisions are discussed in the next section. They are also discussed in the context of a Pennsylvania strict products liability action.

This article is also a review of Pennsylvania products liability law. Despite significant legislative attempts to restrict tort liability,⁵ Pennsylvania remains a consumerist state. In particular, its products liability law is among the most protective in the nation.⁶ Succinctly summarized, under Pennsylvania law, product sellers – those within the chain of distribution for a product – have a strict liability duty to the consumer, independent of any privity connection, to design, manufacture, and sell their products with everything necessary to make them safe for use and without any condition that renders them unsafe for use.⁷ As one court stated, product sellers

⁴ *Grady v. Frito-Lay, Inc.*, 576 Pa. 546, 839 A.2d 1038 (2003).

⁵ One such attempt to limit liability was the Fair Share Act, recently ruled to be unconstitutional. In October 2001, Pennsylvania Senate Bill 1089 was introduced. It was described as “an act amending the DNA Detection of Sexual and Violent Offenders Act” (“the DNA Act”). Thereafter, it was sent to the House for approval. There it was amended. It thereafter passed back between the Senate and the House with additional amendments. On the third pass through the House, the “Fair Share Act” was appended to S.B. 1089. The Fair Share Act legislatively rescinded the common law application of joint and several liability to particular narrow exceptions, finding that, in other instances, each defendant would be responsible for its respective share of the damages as determined by a court or finder of fact. The Fair Share Act was passed in March 2002 and signed into law by Governor Schweiker in June 2002. In *DeWeese v. Weaver*, 880 A.2d 54, 61-62 (Pa. Cmwlth. 2005), *appeal pending*, 85 MAP 2005 (Pa.), the Pennsylvania Commonwealth Court held that the addition of the Fair Share Act to the “DNA Act” was unconstitutional and struck this legislation as void. Specifically, the law is unconstitutional because its passage violated Article 3, Section 3 of the Pennsylvania Constitution, which prohibits the passage of bills with more than one subject. Since this decision, the Pennsylvania Legislature is presently deciding the passage of a new joint and several liability limitation.

⁶ *See, e.g., Habecker v. Clark Equipment Company*, 36 F.3d 278, 285 (3d Cir. 1994)(applying Pennsylvania law), wherein the Third Circuit stated:

Pennsylvania’s public policy is such that manufacturers of products are encouraged to make them as safe as possible, as soon as possible.

The Court also noted that California and New York have similar consumer protective policies and that other states, such as Michigan and New Jersey, do not. *Id. See also, Clark v. Bil-Jax, Inc.*, 2000 Pa. Super. 370, 763 A.2d 920, 926 (Pa. Super. 2000)(“...in a design case, the question is whether the product should have been designed more safely”).

⁷ The Standard Jury Instruction regarding the definition of “Defect” is the same today as it has been since the Pennsylvania Supreme Court determined that the use of the term “unreasonably” dangerous, set forth in the Restatement (Second) of Torts, Section 402A, impermissibly injected negligence concepts into a strict liability matter, wherein liability is established without regard to conduct, but rather by reference to whether the product was defective and caused an injury. *Azzarello v. Black Bros. Co.*, 480 Pa. 547, 391 A.2d 1020, 1024 (1977)(the supplier of a product is the guarantor of its safety). This instruction, Pa. Stan. J.Inst. No. 8.02 (Civ) defines “defect” as follows:

The supplier of a product is the guarantor of its safety. The product must, therefore, be provided with every element necessary to make it safe for its intended use, and without any condition that makes it unsafe for its

must ensure that their products are “*as safe as possible, as soon as possible.*”⁸ This sentiment is at the heart of Pennsylvania “strict liability” law – establishing liability *without fault*; and courts properly focus on a product’s design, rather than on conduct when determining liability.⁹ This view guides the scope of relevancy in strict product liability matters, both for the plaintiff’s case in chief and with regard to admissible defenses at trial. These relevancy issues are discussed in the third section of this article.

The *sine qua non* of every products liability case is the plaintiff’s claim of defect. Every case evaluation and trial centers upon the question of whether the injuring product was unsafe and whether that condition caused the accident. Did the accident occur because the product lacked a safety device? Was it unsafe because it did not have necessary warnings? Did the accident occur because the product was sold in a condition that did not conform to its intended design? Or was the product simply an ill-conceived product sold to the public without pre-sale testing, consideration or other proper pre-sale evaluation?

Such information may not be sufficiently ascertained until after the completion of discovery, since it may depend materially upon specific product history information exclusively possessed by the manufacturer or seller. This information is relevant to establish both the product’s characteristics, including the claimed defects at issue, and other evidence necessary or helpful to establish the plaintiff’s claim, such as product and defendant identification, product sales history, information about the defendant, the product’s intended uses and environments of use.¹⁰

Beyond the subject product history, there may be applications of safety devices from different products to the particular product’s design.¹¹ In all such matters, the threshold question

intended use. If you find that the product, at the time it left the defendant’s control, lacked any element necessary to make it safe for its intended use or contained any condition that made it unsafe for its intended use, then the product was defective, and the defendant is liable for all harm caused by such defect.

Further, where there is no issue with regard to “intended use”, the adjective “intended” may be omitted. *See, Hilburn v. Deere & Co.*, 1990 U.S. Dist. LEXIS 10299 (E.D. Pa. 1990)(applying Pennsylvania law) (where the question of misuse is not properly before the jury, the phrase “intended use” might mislead the jury into concluding that there was a dispute regarding the proper use of the product in question).

⁸ *Habecker v. Clark Equipment Co.*, 36 F.3d 278, 285 (3d Cir. 1994)(applying Pennsylvania law).

⁹ *See*, discussion regarding limited defenses and product seller claims of “reasonable” design, discussed *infra*.

¹⁰ The proofs regarding defect are discussed separately below. These include the product’s history, prior product injuries, its complaints history, competitor information, patent and intellectual property and their respective admissibility at trial. Also discussed below is the use of learned treatises and other evidence proffered to support a claim of product defect. This evidence may also differ depending upon whether the case is a design, warnings, manufacturing or malfunction defect case.

¹¹ For example, in one case, the question was whether a ratchet and pawl, a positive locking mechanism, could be used as a safety device to prevent the inadvertent disengagement of a product’s or component positioning by a worker or by the product’s activities. Such devices are commonly found in socket wrenches and allow for single directional movement until a positive release. The device is “as old as the pyramids”. On record, at least, it dates to the fifteenth century, a concept developed by Leonardo Da Vinci. In some instances,

to be decided regarding “defect” is “feasibility” – viz: when the product was sold, was it feasible to incorporate the proposed safety design alternative (a safety device or warning), into the product’s design. These discussions are in the fourth section, discussing a plaintiff’s case in chief.

In that section, Pennsylvania’s expert evidence rules are contrasted with their federal counterparts. What is clear is that, despite resolving several areas of confusion regarding Pennsylvania Rule of Evidence 702, relating to expert qualifications, there remain other subtle areas that require further examination. These are discussed in the context of the question of defect, which most often requires proof by expert opinion.¹²

As discussed below, the Pennsylvania Rules of Evidence are often different from their federal counterparts, particularly in the area of expert testimony, even though in some respects, looking at their text alone, they may appear quite similar. The *Frye*¹³ debate – which lasted for

one will discover the application of a safety device by a competitor or even by the defendant, offered as optional equipment or on another model.

¹² See, *Dion v. Graduate Hosp. Of the Univ. of Pa.*, 520 A.2d 876 (Pa. Super. 1987).

¹³ *Frye v. United States*, 54 App. D.C. 46, 293 F. 1013 (1923). In *Frye*, a criminal defendant was convicted of second degree murder. On appeal, he contended that the trial judge erred in precluding the testimony of a proffered expert to testify to the result of a “deception test”, the predecessor to a lie detector, which the expert had made on the defendant. The defendant also wanted the expert to conduct the “deception test” in front of the jury. This was also precluded.

The United States Court of Appeals for the District of Columbia affirmed. It agreed with the trial court that the deception test, also known as the systolic blood pressure deception test, was too novel and untested to be deemed sufficiently reliable for admission. As the Court stated:

Just when a scientific principle or discovery crosses the line between experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone, the evidential force of the principle must be recognized and while courts will go a long way in admitting expert testimony deduced from a well recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.

According to the *Frye* test, for novel opinion evidence, the particular technique supporting an expert opinion must be generally accepted by the relevant scientific community. Giannelli, *The Admissibility of Novel Scientific Evidence: Frye v. United States A Half Century Later*, 80 Colum. L. Rev. 1197 (1980); *Symposium on Science and the Rules of Evidence*, 99 F.R.D. 187, 189-193 (1983); *Rules for Admissibility of Scientific Evidence*, 115 F.R.D. 79 (1987). *Id.* As succinctly summarized by Attorney Thomas Cooper, “The Frye doctrine bars the admission of 1) “novel scientific evidence” unless 2) the “methodology” employed by the testifying expert 3) is “generally accepted” by the relevant scientific community”. Thomas Cooper, *Expert Witness Testimony – Frye Revealed – The Impact of Tract Fellin II*, 75 Pa. Bar. Q. 10 (Jan. 2004). The Pennsylvania Supreme Court adopted *Frye* for novel scientific evidence in 1977 in *Commonwealth v. Topa*, 471 Pa. 223, 369 A.2d 1277 (1977). In *Topa*, defendant appealed a jury conviction for first degree murder. Defendant contended that the trial court erred in admitting the Commonwealth expert testimony regarding spectrograph (voice print) analysis of a recorded telephone call. The Pennsylvania Supreme Court reversed and remanded the case for a new trial. According to the Commonwealth’s expert, the voice on a recorded anonymous call to the Scranton Police Department belonged to the defendant. The Commonwealth’s expert compared spectrograms made from the confession tape and an exemplar provided by defendant and concluded that the confession was definitely made by the defendant/appellant. The *Frye*

more than ten years – is only one of several on-going areas of confusion, recently resolved for the present time, with the Pennsylvania Supreme Court’s decision in *Grady v. Frito-Lay, Inc.*¹⁴ Other continuing areas of concern involve federal and state court differences regarding the permissible use and admission of learned treatises as substantive evidence and differences regarding state and federal evidence rule 705. These differences are discussed in the context of proof regarding defect.

EXPERT TESTIMONY BEFORE AND AFTER *GRADY* AND *TRACH II*

Opinions Regarding Expert Opinions Before *Trach II*

In October 1998, the new Pennsylvania Rules of Evidence became effective. At that time, and for some time before, there was significant debate over whether Pennsylvania would continue to be a “*Frye*” state or whether it would follow the Third Circuit’s application of *Daubert*,¹⁵ and permit the trial judge to engage in a routine “gatekeeping” role in determining the admissibility of expert testimony.¹⁶ Critics labeling expert opinion as “junk science” and of *Frye*’s limited application and method of permitted expert validation, as opposed to a judicial determination of validity, called for a switch to *Daubert*, as a new rule of law.¹⁷ This view

Rule for novel scientific evidence remains as part of the qualifications for those espousing opinions in new scientific areas pursuant to Pa.R.E. 702.

¹⁴ 576 Pa. 546, 839 A.2d 1038 (2003).

¹⁵ *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). In *Daubert*, the United States Supreme Court held that F.R.E. 702 supersedes the *Frye* test. Federal Rule 702 applies a *more liberal* basis for the admission of expert testimony. Some forget that the Supreme Court had reversed the trial court for applying *Frye* because it found *Frye* to be too “rigid” and restrictive in the admission of expert testimony. *Id.*, 509 U.S. at 587. Further, a central debate between the policy of Federal Rule 702 and those advocating gatekeeper jurists is the determination of who should determine the “reliability” of expert testimony before admission, the trial judge or the experts. The traditional role, envisioned by Federal 702, was to permit a greater admission of evidence, with such testimony being tested through the crucible of cross examination. However, notwithstanding this more liberal standard, in some courts the application of the *Daubert* factors led to multiple proof hurdles before getting to trial. Often *Daubert* hearings ended up being mini-trials where they were back-door summary judgment motions or used as an avenue for cross-examination fodder at the plaintiff’s expense. If anything, *Daubert* has increased uncertainty in the area of products liability. Compare *Padillas v. Stork-Gamco, Inc.*, 1997 U.S. Dist. LEXIS 14436 (E.D.Pa. 1997) and *Childs v. General Motors*, 1998 U.S. Dist. LEXIS 1099 (E.D.Pa. 1998) with *Steyck v. Bell Helicopter Textron, Inc.*, 1998 U.S. Dist. LEXIS 14081 (E.D. Pa. 1998) and *Kannankeril v. Terminix International, Inc.*, 128 F.3d 802 (3d Cir. 1997).

¹⁶ The *Daubert* factors include consideration of (1) whether the proffered theory or technique has been scientifically tested; (2) Whether the theory or technique has been subject to peer review or publication; (3) The determination of an error rate for the technique used; and (4) acceptance of the theory or technique in the relevant scientific community. *Id.*, 509 U.S. 591-593.

¹⁷ See, Young and Wilkinson, *Admissibility of Expert Testimony – Supreme Court Digests The Frye Test in Grady v. Frito-Lay and Eschews Daubert*, 75 Pa. Bar. Qtrly. 132, note 60 (July 2004), citing Bames, *General Acceptance Versus Scientific Soundness: Mad Scientists in the Courtroom*, 31 Fla. St. U.L.Rev. 303 (Winter 2004) as an example of those advocating an activist gatekeeping role by the court to regulate expert testimony at trial. Attorneys Young and Wilkinson provide an excellent analysis of *Grady v. Frito-Lay, Inc.*, and its implications. Their article is a fine compliment to Cooper, *Expert Witness Testimony – Frye Revealed – The Impact of Trach-Fellin II*, 75 Pa. Bar. Qtrly. 10 (Jan. 2004). Both articles are liberally

gained support from the new Pennsylvania Rules of Evidence since Pennsylvania Rule 702, adapted from Federal Rule of Evidence 702, was originally quite similar in content. Not surprisingly, there was significant speculation that Pennsylvania would follow other states in switching to the *Daubert* “gate-keeping” method for expert admission.¹⁸

Between 1993, when *Daubert* was decided, and 2000, roughly a year following the Pennsylvania Supreme Court’s adoption of the new rules of evidence, Pennsylvania seemed to be on a collision course with *Daubert*; it appeared that *Frye*’s days were numbered.¹⁹ During this

referenced herein and cited as *Young/Wilkinson* for discussion of the *Grady v. Frito-Lay* decision and *Cooper* for discussion of *Trach v. Fellin II*.

¹⁸ In 1999, Federal Rule of Evidence 702 stated:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

In 2000, Federal Rule of Evidence was amended to reflect *Daubert, supra*.

Pennsylvania Rule of Evidence 702 states:

Rule 702 Testimony By Experts

If scientific, technical or other specialized knowledge beyond that possessed by a layperson will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education may testify thereto in the form of an opinion or otherwise.

The only original difference was Pennsylvania’s use of the phrase “*beyond that possessed by a layperson*”. *Frye* critics argued that this merely reinforced a court’s gate-keeping role per *Daubert* and cases applying that decision thereafter.

¹⁹ In *Commonwealth v. Crews*, 640 A.2d 395 (Pa. 1994), the Pennsylvania Supreme Court, while it declined to apply *Daubert* to the admissibility of expert opinion regarding DNA test results, expressly reserved any decision regarding choosing between *Frye* and *Daubert* for another day. Specifically, the Court stated:

In *Daubert*, the Court was "called upon to determine the standard for admitting expert scientific testimony in a federal trial." *Id.*, 125 L.Ed.2d at 476. Construing Federal Rule of Evidence 702, the Court held that the *Frye* standard--general acceptance of reliability in the relevant scientific community--was superseded by the adoption of the Federal Rules of Evidence, which make all relevant evidence admissible, in general. *Id.* at 479.

Thus, the narrow holding of *Daubert* does not affect this case, as the Federal Rules of Evidence are not authoritative in determining admissibility of the DNA evidence in this case. Moreover, although the *Frye* decision of 1923 was not binding on Pennsylvania courts, we nevertheless adopted the *Frye* test as a useful way of evaluating novel scientific evidence under Pennsylvania law. *See, e.g., Commonwealth v. Topa*, 471 Pa. at 232, 369 A.2d at 1281-82.

Daubert relaxes, somewhat, the impediments to admission of novel scientific evidence. Under *Daubert*, expert scientific testimony is admissible if it fulfills two criteria. First, it must relate to "scientific knowledge," thereby establishing "a standard of evidentiary reliability," which "will be based upon scientific validity." To constitute scientific knowledge, the evidence must be grounded in the methods and procedures of science, based on more than subjective belief or unsupported speculation, and supported by appropriate validation based on what is known. The second criterion is that the evidence must be relevant;

it must assist the trier of fact to understand the evidence or to determine a fact in issue. *Daubert*, 125 L.Ed.2d at 480-81. "General acceptance" will no longer, in federal trials, constitute a threshold necessity in determining admissibility of scientific evidence, though it remains a factor to consider in determining admissibility. Other factors are whether the technique or methodology can be or has been tested: its "falsifiability, or refutability, or testability." Another consideration is whether the theory or technique has been subjected to peer review and publication. A court should also consider the known or potential rate of error, and the existence and maintenance of standards controlling the technique's operation. *Id.* at 483.

Daubert, interpreting and applying the Federal Rules of Evidence, does not control our analysis of DNA evidence in this case. Whether or not the rationale of *Daubert* will supersede or modify the *Frye* test in Pennsylvania is left to another day.

The Court ultimately affirmed the admission of DNA opinion evidence and testing, by stating that such evidence was relevant and probative to the question of perpetrator identification. It concluded that such evidence was sufficiently reliable for admissibility under *Frye*.

However, during this interim period, with regard to civil trials, *Frye* was more of a hurdle. *See, McKenzie v. Westinghouse Corp.*, 674 A.2d 1167 (Pa. Cmwlth. 1996) (affirming summary judgment in favor of Westinghouse, whose manufacturing processes contaminated groundwater with trichloroethylene after concluding that the plaintiffs' expert's opinions regarding causation did not satisfy *Frye*. The trial court found that the plaintiffs had presented two experts who testified that the main expert's methodologies were generally accepted by the relevant scientific community. However, the court found that the expert's ultimate conclusions had not been generally accepted. The Commonwealth Court affirmed on an abuse of discretion standard)(death of girl born with defects after exposure in utero to trichloroethylene traced to groundwater consumed by mother); *Checcio v. Frankford Hospital-Torresdale*, 717 A.2d 1058 (Pa. Super. 1998)(affirming summary judgment entered after plaintiff's expert was precluded at trial. The trial court applied *Daubert* to preclude the plaintiff's expert' opinion that lack of oxygen caused brain damage in a premature baby, born with an underdeveloped lung and administered oxygen therapy. The Superior Court affirmed even though the trial court had applied the wrong standard for the admission of evidence since, as the Court stated:

While such an analysis is incorrect under current Pennsylvania law, as the court points out a witness who fails to meet the requirements of *Daubert* necessarily fails to meet the more restrictive *Frye* standard as well. Therefore, while we find the trial court's reliance on *Daubert* to be in error, for the reasons that follow we find its substantive conclusions as to the admissibility of Appellants' expert testimony to be correct.

Id., 717 A.2d at 1060-61. *See also, Blum v. Merrell Dow Pharm.*, 705 A.2d 1314 (Pa. Super. 1997)(the Pennsylvania Superior Court reversed a \$24 million verdict in favor of the plaintiff, born with birth defects, alleged to be caused by his mother's ingestion of Bendectin, an anti-nausea drug, manufactured by the defendant pharmaceutical company. Instead of ordering a new trial, the Superior Court concluded that, without such evidence, the plaintiff could not sustain his burden and remanded the case for judgment in favor of defendant). *Blum* was affirmed by the Pennsylvania Supreme Court. *See, Blum v. Merrell Dow Pharm.*, 564 Pa. 3, 764 A.2d 1 (2000). Once again, the Pennsylvania Supreme Court declined to announce a change in evidentiary standard. It concluded that the plaintiff's causation expert, who was not an epidemiologist, had been disqualified in several courts and that no medical statistical study had ever significantly linked Bendectin to causing birth defects. Based on these conclusions, the Court ruled that the expert would have been disqualified under either *Frye* or *Daubert*. As the Court stated:

Moreover, the primary evidence at trial supporting the conclusion that Bendectin caused appellant's birth defect, the testimony of Dr. Alan K. Done, was so flawed as to render his conclusions unreliable and therefore inadmissible under either *Frye* or *Daubert*, so a choice between the two standards is unnecessary to the resolution of this appeal. It would appear to be jurisprudentially unsound, therefore, to utilize this case as a vehicle to evaluate the wisdom of such a change.

period, there was significant confusion about *Frye*'s application. One view sought to replace *Frye* with *Daubert*.²⁰ However, the Pennsylvania Supreme Court declined to do this.²¹ Nevertheless, subsequent lower appellate court opinions suggested that satisfying *Daubert* was a prerequisite to satisfying the *Frye* general acceptance test.²² Another questionable response extended *Frye* beyond novel scientific evidence – to apply whenever “science enters the courtroom.”²³ Moreover, there were debates over the quantity of proof necessary to admit expert testimony. Some courts held that *Frye*'s general acceptance test extended to both conclusions and methodology.²⁴

This confusion led to several controversial decisions and, in several cases, tragic results. In particular, five questionable decisions were repeatedly cited in efforts to quash expert testimony - *McKenzie v. Westinghouse Corp.*, *Blum v. Merrell Dow Pharm.* (Superior Court), *Checcio v. Frankford Hospital-Torresdale*, *Wack v. Farmland Ind.*, and *Thomas v. Westbend*.²⁵ In February 2003, the Pennsylvania Superior Court overruled these decisions, or otherwise significantly limited their application, in *Trach v. Fellin II*.²⁶

Trach v. Fellin II

Trach is a good example of the confusion and potential danger created by the *Daubert/Frye* controversy. *Trach* is a pharmacy negligence action.²⁷ Plaintiff Allen Trach was

764 A.2d at 7. See also, *Wack v. Farmland Ind.*, 744 A.2d 265 (Pa. Super. 1999)(affirming summary judgment on causation in a chemical exposure wrongful death action stemming from benzene injection from contaminated drinking water; the Superior Court concluded that the plaintiff's epidemiological evidence on causation was unreliable because the underlying studies cited by the plaintiff's expert did not establish the causal link – thereby not supporting the plaintiff expert's conclusions); *Thomas v. Westbend*, 760 A.2d 1174 (Pa. Super. 2000)(summary judgment affirmed in a products liability case involving an heart injury from an electrical shock by a popcorn popper; the trial court excluded the plaintiff damage expert).

²⁰ This view still exists today. See, Madame Justice Newman's concurrence in *Grady v. Frito-Lay, Inc. supra*.

²¹ *Commonwealth v. Crews*, 640 A.2d 395 (Pa 1994). However, the Supreme Court simply declined to decide this issue under the facts presented and left this question for another case.

²² *Checcio v. Frankford Hospital-Torresdale*, 717 A.2d 1058 (Pa. Super. 1998); *Thomas v. Westbend*, 760 A.2d 1174 (Pa. Super. 2000).

²³ *Blum v. Merrell Dow Pharm.*, 705 A.2d 1314 (Pa. Super. 1997);

²⁴ *McKenzie v. Westinghouse Corp.*, 674 A.2d 1167 (Pa. Cmwlt. 1996); *Wack v. Farmland Ind.*, 744 A.2d 265 (Pa. Super. 1999); *Thomas v. Westbend*, 760 A.2d 1174 (Pa. Super. 2000).

²⁵ 760 A.2d 1174 (Pa. Super. 2000).

²⁶ 817 A.2d 1102 (Pa. Super. Feb. 13, 2003)

²⁷ It involves the sale of the wrong prescription by a pharmacy. However, since it involves the sale of a product, a drug, by a seller in the business of selling such products, this case is factually similar in some respects to a Section 402A action, apart from its substantive holding regarding expert evidence law.

given Doxepin²⁸ by a local Thrift Drug pharmacy, instead of his prescribed Amoxicillin.²⁹ The Doxepin prescription sold directed the plaintiff to take a potentially lethal dosage. Believing that he was taking Amoxicillin, Mr. Trach followed the prescription directions and took an overdose of Doxepin. While he did not die, Mr. Trach suffered cognitive impairment and open-angle glaucoma shortly after this incident. The trial court directed a verdict for plaintiff on liability. The case proceeded to trial on damages alone.

To support his damages claims, Mr. Trach presented the testimony of a Board Certified pathologist/toxicologist to testify about the causal connection between his overdose and these medical conditions. Indeed, part of his causation claim was generally admitted by the defense. The defendant's designee admitted that open angle glaucoma could potentially be caused by such an overdose. As such, common sense suggested that this case should be won by the plaintiff.

However, despite such facts, including the temporal proximity of the plaintiff's injury,³⁰ the defense sought in limine to preclude the plaintiff's expert at trial. In its attack, the defense presented two damages experts who noted that there was no medical literature or epidemiological studies that had previously established this causal connection. Moreover, the drug's manufacturer did not conduct any testing in this regard. But, the trial judge denied the defense motion to preclude this testimony and the case proceeded to trial.

The jury sided with the plaintiff, awarding him \$5 million in damages. The defense filed post-trial motions, claiming that the plaintiff's expert's testimony should have been precluded under *Frye* as novel opinion that had not been generally accepted and cited to the absence of prior studies and testing as a basis for exclusion. The trial court agreed and awarded a new trial on damages.³¹ The plaintiff appealed. Initially, in *Trach I*, the Pennsylvania Superior Court affirmed, holding that "*Frye* applies 'whenever science enters the courtroom'" and finding that the plaintiff's expert had failed the *Frye* test because his *conclusions* on causation – that the overdose had caused the plaintiff's claimed injuries – were not generally accepted by the relevant scientific community; simply put, the Superior Court initially affirmed because there were no studies to back up this expert's opinion.

However, the Superior Court panel had significant reservations about this holding. Judge Ford-Elliott candidly stated that her concurrence was "regrettable" and that she was "deeply

²⁸ Doxepin is an antidepressant medication prescribed for depression and anxiety.

²⁹ Amoxicillin is an antibiotic prescribed for certain infections.

³⁰ The plaintiff suffered immediate symptoms following the overdose over the month following the initial drug ingestion.

³¹ The trial court concluded that because there were no studies supporting the plaintiff's expert's long term causation testimony, his opinions did not meet the *Frye* threshold. The court also concluded that *Frye* applied whenever "science entered the courtroom" to both methodology and an expert's conclusions. The trial court concluded that, notwithstanding an expert's credentials, an expert needs more than just his or her observations and experience in the field upon which to base his or her opinions. Each of these conclusions were supported by then-existing appellate case law. *See, Blum, supra; McKenzie, supra; and Checchio, supra.*

troubled” by the application of *Frye* in the case.³² Fortunately, the plaintiff requested reargument, which was granted en banc. On reargument, in a decision known as *Trach II*, the Superior Court reversed and reinstated the \$5 million verdict for plaintiff, subject to the defendant’s remaining motions, including claims for excessiveness. Judge Ford-Elliott wrote the majority opinion.

In *Trach II*, the Superior Court definitively stated that *Frye* is an exclusionary evidence rule and that its application is narrowly construed.³³ It applies only to novel scientific evidence.³⁴ Otherwise, the common law general rule, favoring admission, is applied. Citing *Miller v. Brass Rail Tavern, Inc.*,³⁵ the Superior Court stated this basic rule for qualifications as follows: "The test to be applied . . . is whether the witness has any reasonable pretension to specialized knowledge on the subject under investigation. If he does, he may testify and the weight to be given to such testimony is for the trier of fact to determine."³⁶

The Court also provided guidance regarding the scope of “novel” “scientific” evidence. First, while the Court did not expressly define “novel” evidence, its use consistently refers to an area that is “new and not resembling something formerly known or used.”³⁷ In this regard, the

³² Her concerns are highlighted by her statement:

I write separately only to note my dismay with this outcome under the facts of this case. It is unfortunate that in cases such as this, when science enters the courtroom, common sense must leave.

³³ 817 A.2d at 1104.

³⁴ *Id.* at 1109. Examples the court cited *Frye v. United States*, 54 U.S. App. D.C. 46, 54 App. D.C. 46, 293 F. 1013 (D.C. Cir. 1923)(systolic pressure used to detect veracity; predecessor to the lie-detector – still not admissible at trial); *Commonwealth v. Blasioli*, 552 Pa. 149, 713 A.2d 1117 (1998)(the admission of DNA identification evidence in a criminal trial – sexual assault/rape); *Commonwealth v. Crews*, 536 Pa. 508, 640 A.2d 395 (1994)(same – double murder); and *Commonwealth v. Topa*, 471 Pa. 223, 369 A.2d 1277 (1977)(voiceprint identification evidence in criminal trial), as examples of cases where novel scientific evidence was proffered at trial. It also included *Blum v. Merrell Dow Pharmaceuticals, Inc.*, 705 A.2d 1314 (Pa.Super. 1997), *affirmed*, 564 Pa. 3, 764 A.2d 1 (2000)(causation of birth defect in child exposed in utero to anti-nausea drug, taken by his mother) as a further example where such evidence was presented in a civil case.

³⁵ 541 Pa. 474, 480-481, 664 A.2d 525, 528 (1995).

³⁶ 817 A.2d at 1104. This liberal admission standard is well established. See, *Kuisis v. Baldwin-Lima-Hamilton Corp.*, 457 Pa. 321 A.2d 914 (1974); *Moodie v. Westinghouse Elec. Corp.* 367 Pa. 493, 80 A.2d 734 (1951).

³⁷ Merriam-Webster Online Dictionary, www.m-w.com/dictionary/novel. Webster’s On-line Dictionary defines it as follows: “Of a kind not seen before; ‘the computer produced a completely novel proof of a well-known theorem’”. See, www.websters-online-dictionary.org/novel. The Superior Court used Webster’s to define “scientific methodology” as follows: Stated differently, the scientific method is "a method of research in which a problem is identified, relevant data are gathered, a hypothesis is formulated from these data, and the hypothesis is empirically tested." Webster's Encyclopedic Unabridged Dictionary of the English Language ("Webster's") 1279 (1989). Within the meaning of the definition of the scientific method, "empirical" means "provable or verifiable by experience or experiment." *Id.* 468. Key aspects of the scientific method include the ability to test or verify a scientific experiment by a parallel experiment or

Court made the distinction between novel theories and extrapolated conclusions reached using the “scientific method”.³⁸ It held that the plaintiff’s opinions were admissible because they were extrapolated conclusions based upon the “scientific method”. The Court so held despite the fact that the plaintiff’s expert had not performed any testing with regard to the conclusions provided. Rather, the plaintiff’s expert explained his opinions based on the information available – discovery information and well known treatises such as the Physician’s Desk Reference and other materials.³⁹

This warrants repeating – the Superior Court held that expert opinion based on extrapolation, premised upon the expert’s education, experience *or* knowledge, is admissible even when there is no supporting peer reviewed literature in the relevant field of expertise.⁴⁰ The court accepted the expert’s testimony that his conclusions were based on extrapolation, a generally accepted methodology.

As applied to the underlying facts, the Court noted that the plaintiff’s expert was well qualified, based on his knowledge, education and experience, to testify about the toxicological effects of Doxepin. It disagreed with the trial court’s holding and noted that the plaintiff’s expert’s general opinions regarding the “dose-response” principle are generally accepted in the field of toxicology, dating back to the 16th century, whereupon a Swiss chemist remarked that too much of anything can be harmful.⁴¹ Notably, the plaintiff’s expert did not premise his opinions upon any testing he performed. Rather, his conclusions were based upon deductive reasoning. However, both the majority and the dissent found that deductive reasoning is a generally accepted methodology. The majority added that extrapolation is “neither novel nor ‘scientific’ in a strict sense.”⁴² The key is whether the methodology employed is sound.⁴³ The Superior Court

other standard of comparison (control) and to replicate the experiment to expose or reduce error. *Id.* 318-319, 1217.

817 A.2d at 1113.

³⁸ *Id.* At 1115.

³⁹ The use of treatises by experts is discussed below.

⁴⁰ *Id.* at 1115, citing, *Donaldson v. Central Illinois Public Service Co.*, 199 Ill. 2d 63, 767 N.E.2d 314, 262 Ill. Dec. 854 (2002)(, *Ferebee v. Chevron Chemical Co.*, 237 U.S. App. D.C. 164, 736 F.2d 1529 (D.C.Cir. 1984), *cert. denied*, 469 U.S. 1062, 83 L. Ed. 2d 432, 105 S. Ct. 545 (1984)(chemical exposure causation, reversed on other grounds, federal preemption). Citing, *Commonwealth v. Santarelli*, 334 Pa. Super. 589, 483 A.2d 895, 900 (Pa.Super. 1984) (observing, "We receive [out-of-state] decisions as persuasive authority but not binding precedent[") (citation omitted), *cert. denied sub nom. Steingraber v. Pennsylvania*, 476 U.S. 1116, 90 L. Ed. 2d 656, 106 S. Ct. 1973 (1986).

⁴¹ 817 A.2d at 1113, quoting Paracelsus, "'Alle Ding sind Gift und nichts ohn Gift; allein die Dosis macht das ein Ding kein Gift ist" [all things are poison and not without poison; only the dose makes a thing not a poison]." Citing, William C. Krieger, *Foreword on Paracelsus--Dose Response*, in Academic Press: *Handbook of Pesticide Toxicology*, at xxvii-xxxiv (2d ed. 2002).

⁴² 817 A.2d at 1118.

found this to be an acceptable basis for opinion from a qualified expert. In this regard, the Court analogized such situations to cases involving the “two schools of thought” doctrine.⁴⁴ It found a rigid application of *Frye* to be “gate-keeping” unnecessarily stifling to a plaintiff’s ability to present sufficiently reliable expert testimony to prove his or her claims.⁴⁵ A new day dawned in an era of enlightened expert testimony.

The Superior Court’s decision in *Trach II* expressly overruled and/or limited several prior Superior Court decisions.⁴⁶ These included *Thomas v. West Bend Co., Inc., supra*, *Wack v. Farmland Indus. Inc., supra* and *Blum v. Merrell-Dow Pharm., Inc., supra*, the latter decision despite being affirmed by the Pennsylvania Supreme Court. It also overruled by implication

⁴³ In this regard, the Superior Court’s holding in *Trach II* is distinguished from the underlying facts in *Blum v. Merrell-Dow Pharm., supra*. The underlying methodology employed by the plaintiff’s expert in *Blum* was cast into serious dispute by other courts which had previously precluded the expert’s opinions because of this suspect methodology.

⁴⁴ See, 817 A.2d at 1114, where the Court states:

As noted *supra*, expert testimony is only required where the knowledge is "beyond that possessed by a layperson" and may only be offered by a witness with "reasonable pretension to specialized knowledge on the subject under investigation." Pa.R.E. 702 and Comment--1998. As our supreme court recently observed in the context of the "two schools of thought" doctrine:

Limiting evidence to medical literature would have the effect of preventing expert witnesses from testifying to the existence of a school of thought based on their experience as practitioners and on information they obtained during their medical training and while attending lectures and other educational programs sponsored by institutions and professional societies. Furthermore, in cases where medical literature is silent with regard to certain techniques or treatments, the lack of written materials would necessarily be fatal to the [proponent's] claim.

Gala v. Hamilton, 552 Pa. 466, 472, 715 A.2d 1108, 1111 (1998).

⁴⁵ In this regard, the Superior Court echoed concerns raised by Justices Cappy and Castille in their dissents in *Blum v. Merrell Dow Pharm.*, 564 Pa. 3, 764 A.2d 1 (2000).

⁴⁶ 817 A.2d at 1112. The Court stated:

To the extent the decisions of this court in *Blum, supra*; *Thomas v. West Bend Co., Inc.*, 2000 PA Super 291, 760 A.2d 1174 (Pa.Super. 2000), *appeal denied*, 566 Pa. 647, 781 A.2d 147 (2001); and *Wack v. Farmland Industries, Inc.*, 1999 PA Super 327, 744 A.2d 265 (Pa. Super. 1999), *appeal denied*, 565 Pa. 649, 771 A.2d 1287 (2001), relying on *McKenzie, supra*, have followed or referenced the two-bases analysis, we can find no support for doing so in our supreme court’s *Frye* analysis. Rather, it appears as if the two-bases analysis arose from confusing "principles" with "conclusions." See *McKenzie*, 674 A.2d at 1172, quoting *Rodgers*, 605 A.2d at 1234 (opining that the *Frye/Topa* standard "assures that those most qualified to assess the general validity of a scientific method will have the determinative voice by requiring that *the principle or discovery forming the basis for evidence* presented at trial must have gained general acceptance in the particular field to which it belongs[") (emphasis in *McKenzie*).

Checchio v. Frankford Hospital, Torresdale Div., supra. Specifically, it found that the trial court here erred in its analysis applying these decisions and independently found that *Frye* applies to methodology and not conclusions, contrary to *Checchio*'s holdings.⁴⁷

Trach II is a major decision. Deductive reasoning is not a "novel" scientific opinion, warranting *Frye* treatment. *Frye* does not apply every time science steps into the courtroom. When it does, it applies to methodology and not to conclusions. This decision returns Pennsylvania to a more sensible approach of expert testimony consistent with its underlying law of evidence favoring the admission of opinion from a duly qualified expert.

Since *Trach II*, the Pennsylvania Superior Court has applied its holding to three civil cases, *M.C.M. v. The Milton S. Hershey Med. Ctr.*,⁴⁹ *Haney v. Pagnanelli*⁵⁰ and *Folger v. Dugan*.⁵¹ In each instance, it held that a *Frye* analysis was not warranted under the circumstances. In *M.C.M.*, it found that *Frye* did not apply to expert testimony that other hospitals applied a certain neonatal test. In *Haney*, it held that *Frye* does not apply to deductive reasoning. In both cases, it reversed summary judgment entered after the grant of a *Frye* motion. In *Folger*, the Superior Court affirmed a jury verdict for a medical malpractice defendant whose opinion was challenged pursuant to *Frye*.

Grady v. Frito-Lay

The Superior Court's decision in *Trach II* was made, knowing that the Supreme Court was about to decide *Grady v. Frito-Lay*,⁵² a products liability case involving internal injuries suffered after ingesting a Doritos tortilla chip.⁵³ In *Grady v. Frito-Lay*, plaintiff Carl Grady suffered an esophageal tear after eating 5-6 Doritos. He claimed that the chip was defectively designed because of its strength and geometric properties which caused the chips, when eaten, to break into smaller sharp pieces resulting in an unreasonable risk of injury.⁵⁴ Plaintiff presented

⁴⁷ 817 A.2d at 1112-1114.

⁴⁹ 834 A.2d 1155 (Pa. Super. 2003)(reversing summary judgment following grant of a *Frye* Motion in Limine to preclude the plaintiff's liability expert testimony regarding hospital administration of a newborn test)(*Frye* does not apply to evidence establishing that hospitals use a certain newborn test).

⁵⁰ 830 A.2d 978 (Pa. Super. 2003)(reversing summary judgment in a medical malpractice action premised on a *Frye* Motion in Limine)(*Frye* does not apply to deductive reasoning).

⁵¹ 876 A.2d 1049 (Pa. Super. 2005)("Frye does not apply every time science enters the courtroom")(opinions premised upon medical records are not subject to *Frye*). See also, *Commonwealth b. Whitacre*, 878 A.2d 96 (Pa. Super. 2005) (ballistics admissible)

⁵² 576 Pa. 546, 839 A.2d 1038 (2003).

⁵³ 817 A.2d at 1110.

⁵⁴ See, *Grady v. Frito-Lay, Inc.*, 739 A.2d 735, 738-739 (Pa. Super. 2001)(en banc). The Superior Court quotes the plaintiff's expert's report as follows:

The 23-page expert report of Dr. Beroes, Ph.D., P.E., an associate professor emeritus of chemical engineering at the University of Pittsburgh, opined, in part, that."

two experts to support his claims. The first, a professor emeritus of chemical engineering, performed crush testing after sucking on several chips for short recorded periods. He concluded that the saliva chemical break down, together with normal chewing, was insufficient to eliminate small sharp pieces which could puncture an esophagus wall when swallowed. He cited to several medical journal articles describing similar injuries.⁵⁵ The plaintiff also presented a treating otolaryngologist,⁵⁵ who concurred with this chemical engineer's conclusions and stated that the plaintiff's injuries were caused by the defendant's product.

After the close of pleadings, the defendant filed a motion for summary judgment. This was denied with the presentation of reports. At trial, however, the court granted the defendant's *Frye* motions in limine to preclude the plaintiff's experts' testimony and entered non-suit. The trial court focused its attack upon the crush testing performed by the plaintiff's chemical engineer. It concluded that the testing was akin to a high school science experiment and not premised upon a generally accepted methodology.⁵⁶ He called it junk science. It stated that the

The Doritos Tortillas Natural Cheese Flavored corn chips have several hidden-hazardous physical-strength and physical-shape properties which make them unreasonably dangerous. The majority of the chips are thick, hard, strong and [***6] because of oil coatings, do not quickly absorb the necessary saliva for softening the hard tips. The fact that sharp tips can build up considerable pressures at the tip when force is applied on the chip. [*sic*] An analogy is that a sharp chisel can cut hard steel. During chewing of the chips, the larger chips break into triangular smaller chips and very sharp tips. Experiments were conducted to measure and quantify these dangerous properties.

In the following series of tests, the arrow head shaped tips were held in the fingers pressed down on a platform gram balance. The balance was an OHAUS PRECISION STANDARD GRAM BALANCE, Model TS4KS, SERIAL NO. 5713, readability: 0.1 gram, capacity 4000 grams. The scale was tarred for each individual test with a soft Styrofoam pad. The chip was held firmly by the fingers and pressed down on the pad until the point snapped or crushed. The downward force necessary to crush the chip was measured in grams. The tips or point diameters were measured in microns and assumed to be circles. The force required to break the chip tip was read in grams and recorded. The fragments of the chip were then stored for further examination. The test results establish that large pressures result when a few pounds of force are applied to the triangular shaped chips. The chip points were able to endure high pressures before fracturing. The sharp triangular chip tips can readily pierce the esophagus when driven into the walls of the esophagus by peristaltic action. This action on the flat wall of the chip drives the tip of the chip through the opposite esophagus wall.

⁵⁵ See, *American Journal of Gastroenterology*, "Tortilla Corn Chip - Associated Esophageal Perforation: An Unusual Presentation ACH ALASIA"; *New England Journal of Medicine*, Esophageal Tear Caused by a Tortilla Chip;" *American Roentgen Ray Society*, "Food Laceration of the Esophagus: The Taco Tear." *Annals of Emergency Medicine*, "Corn Chip Laceration' of the Esophagus or Evaluation of Suspected Esophageal Perforation."

⁵⁵ An ear, nose and throat doctor ("ENT").

⁵⁶ See, 739 A.2d at 738-739, quoting the trial court opinion as follows:

In this case, the Plaintiffs sought to "stack" the testimony of their two experts, Charles S. Beroes (hereinafter *Beroes*) and Augusto N. Delerme (hereinafter *Delerme*). In this case, the opinion of Delerme was not freestanding and depended for its efficacy upon the opinion of Beroes. On the other hand, the opinion of Beroes, taken alone, was insufficient to establish a nexus between the produce and the putative injury.

plaintiff's ENT expert necessarily relied upon the chemical engineer's opinion and was not otherwise qualified to testified on causation and precluded his testimony at trial.

On appeal, after reargument, the Pennsylvania Superior Court disagreed with the trial court and reversed. Specifically, the Superior Court concluded that it was error to preclude the plaintiff's ENT doctor from testifying to medical causation. Citing Pennsylvania's liberal standard for expert admission, it concluded that this expert, relying upon professional literature, was competent to proffer the opinion that plaintiff's injury was caused by defendant's product. It also reversed the trial court's opinion attacking the plaintiff's liability design engineer's opinions premised upon his product testing. Specifically, the Superior Court concluded that, despite the absence of such industry testing for such products, the plaintiff's expert's testing relied upon areas within his stated expertise and was not properly subject to a *Frye* analysis.⁵⁷

For the most part, the Pennsylvania Supreme Court agreed with the Superior Court's decision. However, it reversed the lower court with regard to the plaintiff's engineering expert's

It was the finding of this member of the Court, after taking into account the claimed expertise of the Plaintiffs' experts, and the methodology of Beroes, that Beroes' methodology was not based upon scientific data, or utilizing a methodology that was generally accepted in the community of scientists who evaluate food safety. Indeed, it was the impression of this member of the Court that Beroes' methodology smacked of a high school science fair project and did not bear any relationship to the reality of the mastication and consumption of foodstuffs. Beroes approached the characteristics of the Dorito chips as if it were a static evaluation of a material, rather than a consumable. Accordingly, this member of the Court determined that Beroes' methodology was akin to "junk science," did not meet the test of *Frye v US*, 54 App. D.C. 46, 293 F. 1013 (D.C. 1923) and its progeny, and that Beroes' methodology and opinion would only mislead the jury. Beroes was otherwise unqualified to render an expert medical opinion as to whether the Doritos caused the husband-plaintiff's injury. The Defendant's motion *in limine* as to Beroes' opinion was, accordingly, granted.

This member of the Court further determined that Delerme, as a medical professional, was not qualified to opine as to whether the Doritos chip caused the gastroesophageal tear which the husband-plaintiff apparently suffered. In his report, Delerme necessarily relied upon the opinion of Beroes. Without Beroes, Delerme's testimony had no support and was not competent on the issues raised in this case. Accordingly, the Defendant's motion *in limine* as to Delerme was granted.

⁵⁷ See, 739 A.2d at 743, wherein the Court states:

The process of consuming food involves both mechanical and chemical processes. The mechanical processes involve chewing and swallowing while the breaking down of the food involves chemical processes. Thus, an engineer such as Dr. Beroes is qualified to provide expert opinion describing the composition and characteristics of the food product and the mechanics of the processes involved in chewing and swallowing. The series of tests conducted by Dr. Beroes did not involve any novel or new scientific principles, but rather crush strength and compression strength calculations which, as noted by appellants, are possibly "as old as the pyramids."

* * *

The tests, which employed standard calculations, can and have been readily examined and critically evaluated by experts in the field, including those retained by appellee. Such measurements are not "junk science", and any flaws in the design of the tests or compilation of the data can be readily critiqued by appellee.

opinions.⁵⁸ As a preliminary matter, the Supreme Court laid to rest speculation regarding whether Pennsylvania would follow *Daubert* by affirmatively declaring its allegiance to *Frye*. As the Court stated:

After careful consideration, we conclude that the *Frye* rule will continue to be applied in Pennsylvania. In our view, *Frye's* 'general acceptance' test is a proven and workable rule, which when faithfully followed, fairly serves its purpose of assisting the courts in determining when scientific evidence is reliable and should be admitted.⁵⁹

Rather, the Supreme Court's reversal of the Superior Court's en banc decision was premised on procedure. Specifically, the Court majority held that the Superior Court had erred by exceeding the applicable abuse of discretion standard of review.⁶⁰ The Supreme Court's decision was also premised upon the appropriate evidence needed to satisfy a *Frye* challenge which, it concluded, the plaintiff had not satisfied.⁶¹ In particular, the Court held that the burden of showing that an expert satisfies *Frye*, when challenged, rests with the expert's proponent. It concluded that this qualification is independent of an expert's other qualifications regarding the admission of testimony under Pa.R.E. 702.

Further useful interpretation is provided by Justices Castille, Saylor and Lamb in their concurring opinions. Justice Castille observed that the *Grady* majority essentially adopts the approach advocated in his *dissent* to *Blum v. Merrell Dow Pharmaceuticals*, by rejecting a rigid application of *Frye* to both methodology and expert conclusions. He also noted the need for flexibility where existing testing may be dominated by the defendant or its industry. In this

⁵⁸ See, *Grady v. Frito-Lay, Inc.*, 576 Pa. 546, 839 A.2d 1038 (2003). An excellent analysis of *Grady* is provided by Christopher Young and Thomas Wilkinson, *Admissibility of Expert Testimony – Supreme Court Digests the Frye Test in Grady v. Frito-Lay and Eschews Daubert*, 75 Pa. Bar. Ass'n. 132 (July 2004).

⁵⁹ 839 A.2d at 1044.

⁶⁰ *Id.* at 1046: "As abuse of discretion is the standard of review in this matter, it was the Superior Court's function to determine whether the trial court's decision to exclude Dr. Beroes' testimony under *Frye* constituted unreasonableness, or partiality, prejudice, bias, or ill-will, or such lack of support so as to be clearly erroneous. See *id.* Nowhere in its opinion, however, did the Superior Court undertake this function. Instead, it looked directly at Dr. Beroes' testimony, decided what it thought of it, and reversed the trial court because it assessed the testimony differently. Thus, we conclude that the Superior Court erred."

⁶¹ *Id.* Disagreeing with plaintiff's characterization of his expert's testing conclusions, the Supreme Court stated:

Rather, [plaintiff's expert's conclusion] was that Doritos remain too hard and too sharp when being chewed and swallowed for safe eating. While Dr. Beroes' calculations may in fact represent a standard method that scientists use to reach a conclusion about the downward force needed to break Doritos, they are not also necessarily a generally accepted method that scientists in the relevant field (or fields) use for reaching a conclusion as to whether Doritos remain too hard and too sharp as they are chewed and swallowed to be eaten safely. It was, therefore, incumbent upon Appellees to prove that scientists in the relevant field (or fields) generally accept Dr. Beroes' methodology as a means for arriving at such a conclusion. Appellees, however, filed no evidence whatsoever in this regard. Thus, Appellees failed to satisfy their burden of proving that Dr. Beroes' evidence met the *Frye* rule. Accordingly, we conclude that the trial court did not abuse its discretion in deciding that Dr. Beroes' testimony was inadmissible, and hold that the Superior Court erred in reversing the trial court's ruling.

regard, the Court's application of *Frye* to testing, used as part of a methodology, should be deferential to a plaintiff's minority view, particularly where the plaintiff can demonstrate the absence of a reliable industry testing standard. As Justice Castille noted:

There is something not a little offensive about an entity creating a biased, litigation-driven scientific "orthodoxy," and then being permitted to silence any qualified expert holding a dissenting view on grounds of "unorthodoxy." Where the would-be relevant scientific community is a community beholden to the defendants' litigation interests, that biased community should not be permitted to squelch dissenting opposing opinions. The trial court here properly refused to allow that unjust result to occur.⁶²

Such concerns are particularly appropriate in product liability actions, given the Pennsylvania Supreme Court's previous questions about industry testing and standards, noted by *Lewis v. Coffing Hoist Div., Duff-Norton Co., Inc.*,⁶³ a decision holding that industry standards evidence is irrelevant in a Section 402A strict products liability action. As Justice Castille's observation suggests, permitting a products defendant to escape liability under *Frye* by attacking a plaintiff's expert's proposed testing – where such testing supports the plaintiff's theory of liability – because the industry never thought of it or had less rigorous requirements, invites a biased approach to such testing and undermines the goal of protecting those injured by defective products.

These concerns about industry control over testing or standards and an inflexibly applied *Frye* test were echoed by Justices Saylor and Lamb in their concurring opinions. While all agreed that the plaintiff's expert's testing method (of sucking on Doritos and then smashing them) did not conform to a reliable testing procedure in the appropriate industry, all agreed that flexibility needed to be applied when reviewing such a proposed testing methodology.

Grady v. Frito-Lay is undoubtedly an unusual products liability case with difficult facts for the plaintiff. The proposed "chew" testing performed was novel in its origin and approach. In the end, even after Supreme Court review, the plaintiff was permitted to attempt to prove his claims using a negligence theory if not pursuant to a strict liability approach.⁶⁴ Non-suit was

⁶² 839 A.2d at 1048.

⁶³ 515 Pa. 334, 528 A.2d 590 (1987). As the *Lewis* Court observed:

The injection of industry standards into a design defect case would be not only irrelevant and distracting, but also, because of the inherently self-serving nature of "industry standards," would be highly prejudicial to the consumer/plaintiff. By our determination today, we have made it clear that a manufacturer cannot avoid liability to its consumers that it injures or maims through its defective designs by showing that "the other guys do it too."

Id., 528 A.2d 595.

⁶⁴ The Supreme Court also did not find this testing to be "junk science." *See*, 839 A.2d at 1047 n.15, wherein the Supreme Court majority stated:

We observe that in its opinion, the trial court did not only conclude that Appellees failed to show that Dr. Beroes' evidence satisfied the *Frye* rule. The trial court also affirmatively concluded that Dr. Beroes'

removed and the case remanded. Moreover, if a better testing methodology had been proposed, one which could be shown as accepted or derived from relevant fields – food safety, biochemical and food processing, areas presented by the defendant’s expert – and proffered at the right time, on or before the *Frye* challenge, the Pennsylvania Supreme Court may have reached a different conclusion and affirmed the Superior Court’s en banc decision on all grounds, remanding the case for trial.

Trach II and *Grady* represent Pennsylvania’s definitive outline regarding the threshold for expert witness testimony.⁶⁵ Moreover, *Grady* provides a useful guidepost regarding a plaintiff expert’s attempt at product testing. More often than not, product testing is the exception rather than the rule. Often, such testing has a more demonstrative than substantive purpose. Where no testing procedure has been established, as in *Trach II*, one should carefully consider whether it should be performed and, if so, the methodology to be used during the testing process. *Grady* is an exceptionally well prosecuted case involving difficult facts.⁶⁶ However, in comparing it to *Trach II*, one wonders whether the Doritos testing may have done more harm than good at the end of the day. The plaintiff’s medical causation evidence was the strong point of the case. Rather on performing a very difficult test – one which may have been too much for the court to swallow – the plaintiff may have benefited from presenting a theory of alternative design, proving the product defect.⁶⁷ The law surrounding proof of defect is discussed below.

methodology is “junk science” and essentially, not generally accepted by scientists in the relevant field. *The record does not support this conclusion.* Frito-Lay did not prove that Dr. Beroes’ method is not generally accepted by scientists in the relevant field, nor was it required to do so. As we point out, it was Appellees’ burden to prove that Frye was satisfied, not Frito-Lay’s burden to prove otherwise.

⁶⁵ As one learned Judge and commentator recently stated: “The law is now clear. Practioners need only read the opinions in *Grady* and *Trach* to get a full and complete understanding of Pennsylvania’s law on *Frye*.” The Honorable Mark I. Bernstein, “*Expert Testimony 101*”, 27 Pennsylvania Law Weekly 442 (April 9, 2004).

⁶⁶ Plaintiff’s counsel, in that case, outlined the decision in an great presentation with defense counsel, at the 2004 Civil Litigation Retreat in Gettysburg, Pennsylvania. Their panel also include Judge Michael Joyce, a dissenting judge in the en banc Superior Court decision.

⁶⁷ Attorneys Young and Wilkinson provide some “food” for thought, regarding lessons from *Grady* at the conclusion of their article as follows:

- *Choose the Chips That Go With the Dip* – In *Grady*, defendant had an expert with qualifications in food science and safety while plaintiff’s expert was a chemical engineer with a background in fire retardant chemicals. The choice of expert is an important factor in today’s product’s liability action. Contrast this to the “safety engineer” qualified in *Kuisis v. Baldwin-Lima-Hamilton Corp.*, 457 Pa. 321 A.2d 914 (1974). At times, multiple experts may be used to prove discrete propositions.
- *Get the Chips Everyone Likes* – The expert’s report should discuss the methodology used for reaching his or her conclusions. Product liability actions are premised upon a well-established and generally accepted practice of safety design – where a product’s hazardous conditions are minimized through design and, secondarily, by warnings. Further support for an expert’s opinions may be cited, such as professional literature, treatises, patents, drawings and the like.
- *The One Who Brings the Chips Doesn't Have to Bring the Feast* – Experts should keep their opinions within their applicable area of expertise. An expert in fire retardant chemicals may not be the best expert to provide opinions on the safety hazards of crunching Doritos. However, mechanical engineers are often

THE SCOPE OF RELEVANCY IN 402A PRODUCT ACTIONS

Like any cause of action, the scope of admissible evidence is initially defined by the elements of the claims and available defenses.⁶⁸ In Pennsylvania, these strict liability elements are established by Section 402A of the Restatement Second of Torts, adopted by the Pennsylvania Supreme Court in 1966.⁶⁹ Pursuant to Section 402A, these elements are as follows:

- (1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if:
 - (a) the seller is engaged in the business of selling such a product, and
 - (b) it is expected to and does reach the user or consumer without a substantial change in the condition in which it is sold.
- (2) The rule stated in subsection (1) applies although
 - (a) the seller has exercised all possible care in the preparation and sale of his product, and
 - (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

qualified in the area of safety design. As discussed below, Pennsylvania does not require such experts to have personal experience with regard to designing the product at issue. There are practical limitations to such requirements, not the least of which may, in some matters, involve prior employment limitations and confidences. This has never been a requirement in Pennsylvania law. *See, Moodie v. Westinghouse Elec. Corp.* 367 Pa. 493, 80 A.2d 734 (1951).

- *All Chips May Get Frye-d in the End* – After *Trach II* and *Grady*, the trend has been to limit *Frye*'s application to truly novel scientific evidence. *Grady* may have strayed into this area because the testing performed created an issue of novelty – sucking on Doritos for periods of 30 to 90 seconds at a shot, just hadn't been done before – at least in the name of “science.” However, several courts have found that application of safety engineering design principles to product is neither “novel” nor “science”. Particularly with the higher court recognition of *Frye* as an exclusionary rule to be construed narrowly, there is a strong argument that it should not apply to most product liability cases. The message from Attorneys Young and Wilkinson, however, is to “be prepared” just the same. Who can argue with that?

⁶⁸ Pennsylvania's definition of “relevant evidence” is consistent with established Pennsylvania evidence law and is the same as F.R.E. 401 in Pa.R.E. 401. Pa.R.E. 401 states:

“Relevant evidence” means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.

See, Commonwealth v. Scott, 389 A.2d. 79 (Pa. 1978). Like F.R.E. 402, Pa.R.E. 402 states that “All relevant evidence is admissibleEvidence that is not relevant is not admissible.”

⁶⁹ *Webb v. Zern*, 228 A.2d. 853 (Pa. 1966).

Section 402A(1) identifies the elements of a plaintiff's strict liability claim as: (1) proof of defect, (2) causing an injury (3) to a user or consumer, (4) by a product (5) sold by a defendant (6) in the business of regularly selling such products. Often, several of these elements are established well before trial. Most often the case proceeds to trial to determine two questions basic to the cause of action: whether the defendant's product was defective and whether this product's unsafe condition caused the plaintiff's injury. These and other aspects of a plaintiff's case are discussed below.

Section 402A(2)(a) limits the relevant scope of evidence available to defend such claims. The seller's conduct is irrelevant. Even if "the seller has exercised all possible care in the preparation and sale of his product," the seller is still strictly liable for the plaintiff's injuries caused by its product's defective condition.⁷⁰ As discussed below, concepts of reasonable or ordinary care have no place in a strict products liability action; they are irrelevant as a matter of law.⁷¹ Section 402A(2)(b) also makes it clear that privity concepts are not applicable as a defense to strict liability claims. Pennsylvania has embraced these concepts completely. They flow through every element of a strict products liability claim and govern the admission of evidence at trial.

BASIC ELEMENTS OF THE PLAINTIFF'S CASE IN CHIEF

PROVING DEFECT AFTER *GRADY* AND *TRACH II*

⁷⁰ For this reason, Pennsylvania does not recognize the "state of the art" defense. *See, See, Lewis v. Coffing Hoist Div., Duff-Norton Co., Inc.*, 528 A.2d 590 (Pa. 1987); *Carreter v. Colson Equipment Co.*, 499 A.2d 326 (Pa. Super. 1985). *See also, Santiago v. Johnson Machine and Press Corp.*, 834 F.2d 84 (3d Cir. 1987); *Madjic v. Cincinnati Shaper Machine Co.*, 370 Pa. Super. 611, 537 A.2d 334 (1988). It also rejects claims regarding the "desireability of a particular product design and whether the defendant manufacturer knew about the feasibility of the design alternative when the product was sold. *See, Habecker v. Clark Equipment Co.*, (*"Habecker III"*), 36 F.3d 78 (3d Cir. 1994).

⁷¹ The Pennsylvania Supreme Court stated the public policy favoring strict liability in *Azzarello v. Black Bros., Inc.*, 480 Pa. 547, 391 A.2d 1020 (1978) as follows:

The realities of our economic society as it exists today forces the conclusion that the risk of loss for injury resulting from defective products should be borne by the suppliers, principally because they are in a position to absorb the loss by distributing it as a cost of doing business. In an era of giant corporate structures, utilizing the national media to sell their wares, the original concern for an emerging manufacturing industry has given way to the view that it is now the consumer who must be protected. Courts have increasingly adopted the position that the risk of loss must be placed upon the supplier of the defective product without regard to fault or privity of contract.

* * *

There are four basic types of 402A product cases: (1) defective design;⁷² (2) manufacturing defect;⁷³ (3) malfunction claims;⁷⁴ and (4) warning defect cases.⁷⁵ The last type

⁷² A design defect involves proof that some aspect of the basic design of the product rendered the product unsafe for its intended use, by either affirmatively creating or failing to minimize to the fullest extent possible, through all feasible means, the dangers associated with that product's intended uses and foreseeable misuses. A subcategory of design defect cases concerns the question of a product's crash worthiness. Under Pennsylvania law, a product supplier must take into consideration in designing its product that it may be involved in an accident which is not of its own making. See, *Barker v. Deere Co.*, 60 F.3d 158 (3d. Cir. 1995); *Habecker v. Clark Equipment Co.*, 36 F.3d 278 (3d. Cir. 1994).

⁷³ A manufacturing defect is established by proof that the product in question did not conform to its original design or that the lot from which it originated was somehow tainted. Food poisoning cases are an example. See, *Walton v. Avco*, *supra* is another example. That case concerned a helicopter accident wherein an oil pump, a component part of the helicopter engine, failed in mid-flight causing the engine to seize and the helicopter to crash, killing its occupants. A post-accident investigation revealed that the oil pump did not conform to manufacturer design. The manufacturer knew this, but failed to provide direct communication of this information to its purchasers. See also, *Rogers v. Johnson & Johnson Products*, 565 A.2d 751 (Pa. 1989) (proof of defective cast materials through evidence of similar accidents occurring in same batch).

⁷⁴ This type of case establishes defect through the very circumstances of the accident. It permits proof of defect by circumstantial evidence. For example, where a truck bursts into flames after being driven only 35 miles from, the very happening of the accident under such circumstances a defect may be properly inferred. See, *Cornell Drilling Co. v. Ford Motor Co.*, 359 A.2d. 822 (Pa. Super. 1976). Exploding bottle cases are also established through circumstantial evidence. See also, *MacDougal v. Ford Motor Co.*, 257 A.2d 676 (Pa. Super. 1969) (in single vehicle accident where driver of a new car suddenly lost the ability to steer, the Superior Court held that "the occurrence of a malfunction of machinery in the absence of abnormal use and reasonable secondary causes is evidence of a defective condition within the meaning of Section 402A"). See, e.g., *Bialek v. Pittsburgh Brewing Co.*, 242 A.2d 231 (Pa. 1968).

⁷⁵ In *Berkebile v. Brantly Helicopter Co.*, *supra*, a helicopter crashed while in climbing flight after the outboard section of one of its three main rotor blades separated from the craft. Plaintiff brought suit under 402A claiming design defect (during normal use, the average pilot would not have sufficient time to place the helicopter in autorotation in an emergency power failure while in climbing flight); manufacturing defect (the rotor blade was defectively designed and manufactured) and warnings (failure to properly or adequately warn regarding the possible risks and inherent limitations of one of the systems of the helicopter) and under 402B for misrepresentations in its safety literature. Regarding defects through a failure to warn, the Pennsylvania Supreme Court stated:

A defective condition is not limited to defects in design or manufacture. The seller must provide with the product every element necessary to make it safe for use. On such element may be warnings and/or instructions concerning use of the product. A seller must give such warning and instructions as are required to inform the user or consumer of the possible risks and inherent limitations of his product. Restatement (Second) of Torts, 402A, comment *h*. If the product is defective absent such warnings, and the defect is a proximate cause of the plaintiff's injury, the seller is strictly liable without proof of negligence.

* * *

Where warnings or instructions are required to make a product non-defective, it is the [strict liability] duty of the manufacturer to provide such warnings in a form that will reach the ultimate consumer and inform of the risks and inherent limits of the product. The duty to provide a non-defective product is non-delegable.

of product case, in turn, consists of three different types of cases: (a) the absence of warnings;⁷⁶ (b) inadequate warnings or instructions;⁷⁷ and (c) the failure to provide post-sale/preaccident warnings.⁷⁸ Many cases combine several different types of defect claims.⁷⁹ Each type of case conforms to the same general legal definition of defect, discussed below.

Id. at 902-903.

⁷⁶ In this case, the product is supplied without any warning or instruction which explains the possible dangers and inherent limitations at issue. For example, in *Petree v. Victor Fluid Power, Inc.*, 831 F.2d 1191 (3d Cir. 1987), plaintiff was injured when he was struck in the side of the face by a steel spacer bar which was ejected from a hydraulic press operated by a fellow employee. The product did not warn of this hazard. Plaintiff presented expert testimony which established that there was a latent danger which existed during the press' foreseeable operations wherein a spacer bar would be ejected. Moreover, lay testimony established that the workers, including plaintiff, were not fully aware of the risks of injury posed by this product hazard. Under such facts, the plaintiff presented sufficient evidence from which a reasonable jury could infer that the product was defective for lack of warnings. *Id.* at 1196.

⁷⁷ In this case, warnings are provided but they do not properly, completely or sufficiently explain the nature of the hazard at issue. For example, in *Dambacher v. Mallis*, 485 A.2d 408 (Pa. Super. 1984), a 16 year old high school student replaced a flat tire with a Sears radial tire. The other tires on the car were non-radials. The next day he gave seven fellow students a ride home from school. Plaintiff was one of the students and a passenger in the vehicle. It was drizzling and there were leaves on the highway. While driving at about 20-25 mph, he failed to negotiate an S-curve and braked. The back of the car slid sideways and it went off an embankment. Plaintiff's theory of liability was that mixing radials and non-radials created instability and resulted in the driver's inability to negotiate the turn. The tire in question was not embossed with a warning that it should not be mixed with non-radial tires. However, a brochure that accompanied the tire contained a warning that IDEALLY, ALL FOUR TIRES SHOULD BE OF THE SAME CONSTRUCTION TYPE. Plaintiff contended that the warning and instructions in the brochure were inadequate because they needed to be on the tire itself in order to be properly understood or heeded.

⁷⁸ In *Walton v. Avco*, *supra*, the Pennsylvania Supreme Court recognized a strict liability duty to provide post-sale warnings to product users. Specifically, the Court stated:

[Once] having been informed of this defect, [a product supplier is] required to warn its service centers and, more importantly, those who purchased the affected [products]. . . . The responsibility to warn of known defects cannot be satisfied merely by alerting participating service centers. Because of the likelihood that a purchaser will have a product serviced by its own technicians or by an unaffiliated service center, or possibly not serviced at all, sellers must make reasonable attempts to warn the user or consumer directly.

Id. at 610 A.2d at 458. But see, *Habecker v. Clark Equipment Co.*, 797 F.Supp. 381 (M.D.Pa. 1992) (where the product in question is a common business appliance, e.g. a forklift in this instance, there is no 402A post-duty to warn). See also, *Boyer v. Case Corp.*, 1998 U.S. Dist. LEXIS 5897 (E.D. Pa. 1998) (dismissing complaint in part under 12(b)(6) motion for not stating a claim for which relief may be granted under 402A of post-sale warnings).

In a related matter, plaintiffs have argued for a continuing duty to retrofit. This has been rejected to date by the Pennsylvania Superior Court, *Lynch v. McStome*, 548 A.2d 1278 (Pa. Super. 1988), and by the United States Court of Appeals for the Third Circuit, *Habecker v. Copperloy*, 893 F.2d 49, 54 (3d Cir. 1990) (*citing, Lynch*). It should be noted that plaintiffs had pursued the post-sale duty to warn claim for more than 7 years before it was recognized by the Superior Court in 1991. Significantly, both *Copperloy* and *Lynch* predate the Supreme Court's opinion in *Walton*.

⁷⁹ See, e.g., *Andreassen v. Saf-Gard Safety Shoe Co.*, 2005 Phila. Ct. Com. Pl. LEXIS 455 (Phila. 2005) (defective design and warnings claims asserted by molder worker burned when his molders' boots did not adequately protect his foot from contact by hot metal product).

Azzarello and Pennsylvania Jury Instruction 8.02

In *Azzarello v. Black Bros. Co., Inc.*,⁸⁰ the Pennsylvania Supreme Court affirmed the trial court's order granting a new trial based upon an incorrect jury instruction on the question of "defect".⁸¹ The Supreme Court agreed that the use of the phrase "unreasonably dangerous", the actual language of 402A used to describe a product defect, improperly introduced the concept of negligence to the jury, resulting in fundamental error, requiring a new trial. The Court differentiated between the phrase "unreasonably dangerous" and evidence of defect by stating that the former phrase is a term of art which relates to the court's function of determining whether, as a matter of law, the factual question of defect should be decided by the jury.⁸²

The *Azzarello* Court held that the definition of defect by Pennsylvania Standard (Civil) Jury Instruction 8.02 provided an acceptable definition of product defect. This instruction is the same today:

The supplier of a product is the guarantor of its safety. The product must, therefore, be provided with every element necessary to make it safe for its intended use, and without any condition that makes it unsafe for its intended use. If you find that the product, at the time it left the defendant's control, lacked any element necessary to make it safe for its intended use or contained any condition that made it unsafe for its intended use, then the product was defective, and the defendant is liable for all harm caused by such defect.

⁸⁰ 391 A.2d 1020 (Pa. 1978).

⁸¹ In *Azzarello*, plaintiff was injured when his right hand became caught between an unguarded nip point formed by two hard rubber rollers, moving in opposing direction, on a coating machine manufactured by the defendant.

⁸² As the Court stated: "It must be understood that the words, 'unreasonably dangerous' have no independent significance and merely represent a label to be used where it is determined that the risk of loss should be placed upon the supplier." 391 A.2d at 1024. The Court described this threshold determination as follows:

Should an ill-conceived design which exposes the user to the risk of harm entitle one injured by the product to recover? Should adequate warnings of the dangerous propensities of an article insulate one who suffers injuries from those propensities? When does the utility of a product outweigh the unavoidable danger it may pose? These are questions of law and their resolution depends upon social policy. Restated, the phrases "defective condition" and "unreasonably dangerous" as used in the Restatement formulation are terms of art invoked when *strict liability* is appropriate. It is a judicial function to decide whether, under plaintiff's averment of the facts, recovery would be justified; and only after this judicial determination is made is the cause submitted to the jury to determine whether the facts of the case support the averments of the complaint. They do not fall within the orbit of a factual dispute which is properly assigned to the jury for resolution. A [***17] standard suggesting the existence of a "defect" if the article is unreasonably dangerous or not duly safe is inadequate to guide a lay jury in resolving these questions.

391 A. 2d at 1026.

The Pennsylvania Supreme Court also approved of the definition of defect articulated in *Berkebile v. Brantly Helicopter*, *supra*: “The seller must provide with the product every element necessary to make it safe for use.”⁸³ Where there is no issue with regard to “intended use”, the adjective “intended” may be omitted.⁸⁴

Proof of Defect – Limitations Created By The Learned Treatise Doctrine

Without regard to the nature of defect (design, warnings, manufacturing or malfunction), the basic factual question of defect corresponds to the above definition.⁸⁵ Proof of defect can be presented by direct or circumstantial evidence.⁸⁶ Direct evidence of defect is usually provided

⁸³ *Id.*, (quoting, *Berkebile*, *supra* at 337 A.2d at 902).

⁸⁴ *See, Hilburn v. Deere & Co.*, 1990 U.S. Dist. LEXIS 10299 (E.D. Pa. 1990) (where the question of misuse is not properly before the jury, the phrase “intended use” might mislead the jury into concluding that there was a dispute regarding the proper use of the product in question).

⁸⁵ As to the legal question of defect, where the case is submitted to the jury the court is deemed to have made an implicit finding that the factual question of defect is properly before the jury. *See, Dambacher v. Mallis*, 485 A.2d 408, 423, n.6 (Pa. Super. 1984); *Dougherty v. Edward J. Meloney*, 443 Pa. Super. 201, 661 A.2d 375 (1995); *Nowak v. Faberge USA, Inc.*, 32 F.3d 755, 758 (3d. Cir. 1994). Where raised, Pennsylvania applies a “risk/utility” balancing approach which answers the threshold question of “whether, after accepting the plaintiff’s evidence of defective design, the defective condition of defendant’s product justifies placing the risk of loss on the product supplier as a matter of law. In other words, as the Pennsylvania Supreme Court stated in *Azzarello*, *supra* “*Should an ill-conceived design which exposes the user to the risk of harm entitle one injured by the product to recover? . . . When does the utility of a product outweigh the unavoidable danger it may pose?*” *Id.*, 391 A.2d at 1026. Both Pennsylvania and federal courts applying Pennsylvania law apply the seven (7) factor guidepost analysis outlined by Professor John Wade in his article, *On The Nature of Strict Liability For Products*, Miss. L.J. 825, 837-38 (1973). *See, Dambacher v. Mallis*, *supra*; *Surace v. Caterpillar, Inc.*, 111 F.3d 1039 (3d. Cir. 1997). Moreover, the applicable standard and scope of review on this threshold issue is provided by *Burch v. Sears, Roebuck & Co*, 467 A.2d 615 (Pa. Super. 1983); *Barker v. Deere & Co.*, *supra*; *Habecker v. Clark Equipment Co.*, 36 F.3d 278 (3d. Cir. 1994).

⁸⁶ Malfunction and some manufacturing cases, are based exclusively upon circumstantial evidence. Essentially, such cases distill to little more than proving causation from defect based upon the circumstances of the product and accident. Accordingly, the most important evidence is that which most fully accounts for the history of the product in question after it left the supplier. For new products, this burden is obviously not as difficult as for older products. *Compare, Cornell Drilling Co v. Ford Motor Co.*, *supra* with *Kuisis v. Baldwin-Lima-Hamilton Corp.*, *supra*. Ultimately, where a plaintiff cannot sufficiently account for this product history, this may prove fatal to the claim. *See, O’Neill v. Checker Motors Corp.*, 567 A.2d 680 (Pa. 1989).

Further, in malfunction and manufacturing defect claims, the previous reliability of the product is relevant evidence. *See, 1836 Callowhill St. v. Johnson Controls*, 819 F.Supp. 460 (E.D. Pa. 1993). Nevertheless, such evidence does not necessarily or logically mean that the product conformed to product design or did not malfunction at the time of the accident in question. *Id.* (even though plaintiff had used heater without difficulty before the accident, it does not mean that the controls did not malfunction at the time of accident).

Further, such cases do not require that the plaintiff establish the specific defect which caused the accident in question. *See, MacDougall v. Ford Motor Co.*, 473 A.2d 120 (Pa. Super. 1984) (in malfunction case, although plaintiff’s expert could not state with certainty which defect caused accident, opinion was admissible with regard to causation).

Ultimately, such circumstantial evidence cases depend upon the plaintiff’s ability to eliminate reasonable secondary causes of the accident. Where this is done, the fact finder can reasonably infer that product defect -- by

by expert testimony, which may rely upon exemplars, drawings, patents, treatises and other materials to support an opinion regarding defect.⁸⁷ Such direct evidence also includes the product itself, presented directly at trial as real evidence or indirectly by representation by photograph, model, drawings, blueprints or other depiction.⁸⁸ Other evidence of defect is established through the underlying facts themselves, presented by lay witnesses, including the plaintiff.

Experts may rely upon learned treatises, product brochures, patent information and other reasonably relied upon information as a basis for their underlying opinions.⁹⁰ However, in State court, such evidence may not be independently admissible as substantive evidence at trial.⁹¹

malfunction or manufacture -- was the cause of the plaintiff's accident or injuries. See, *Rogers v. Johnson & Johnson, supra*. For this reason, where one proceeds with a theory of negligence against one party, it may be logically inconsistent to argue malfunction. See, *Thompson v. Anthony Crane Rental*, 473 A.2d 120 (Pa. Super. 1994) (finding that it was error in instructing on 402A was harmless where the evidence clearly otherwise established liability). In any event, as discussed above, subsequent warning and design changes, and evidence of other similar accidents may assist in presenting sufficient evidence sustain the inference on causation.

⁸⁷ See, *Dion v. Graduate Hosp. Of the Univ. Of Pa.*, 520 A.2d 876 (Pa. Super. 1987). Where the nature of the alleged defect is so distinctly related to some science, profession, business or occupation as to be beyond the average understanding of the average juror, expert testimony is necessary. *Id.*, 520 A.2d at 881.

⁸⁸ Such evidence is authenticated pursuant to Pa.R.E. 901-902, which is consistent with Pennsylvania common law.

⁸⁹ In some cases, the plaintiff will not testify due to the nature of his or her injuries.

⁹⁰ Such information may be discussed by the expert during his case to explain the bases for his or her opinion. They are presented as information relied upon by the expert pursuant to Pa.R.E. 703, which states as follows:

Rule 703. Bases of Opinion Testimony by Experts

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.

⁹¹ Such evidence is admissible in federal court as an exception to hearsay under F.R.E. 803(18), the learned treatise exception to the hearsay rule. However, Pennsylvania has chosen presently to not adopt this federal rule. The Pennsylvania Rule states as follows:

Rule 803. Hearsay Exceptions; Availability of Declarant Immaterial

The following statements, as hereinafter defined, are not excluded by the hearsay rule, even though the declarant is available as a witness:

* * *

(18) Learned Treatises [Not Adopted]. The Comment cites *Majdic v. Cincinnati Machine Co.*, 370 Pa. Super. 611, 537 A.2d 334 (1988) as the explanation for this Rule, stating simply that "Pennsylvania does not recognize an exception to the hearsay rule for learned treatises." The Pennsylvania Supreme Court has since further limited the admission of learned treatises on direct at trial. See, *Alderidge v. Edmunds*, 561 Pa. 323, 750 A.2d 292 (2000)(limiting, *Nigro v. Remington Arms Co.*, 637 A.2d 983 (Pa. Super. 1993).

This is a difference between Pennsylvania and federal courts.⁹² In federal court, learned treatises are treated as non-hearsay and are independently admissible. But, in state court, while patents,⁹³ competitor product brochures,⁹⁴ standards evidencing minimum design requirements,⁹⁵ learned treatises,⁹⁶ design safety materials,⁹⁷ and other similar materials may support an expert's opinions regarding a product defect, including opinions regarding a feasible alternative design, the actual substantive admission of such evidence in state court is unduly restricted.⁹⁸ Nevertheless, such information may be used productively to show feasible alternative design, and for impeachment purposes, particularly where disputed by a defendant.⁹⁹

Further, while proof of a feasible alternative design is not necessary to prove a strict liability case,¹⁰⁰ such evidence is persuasive and may be crucial from a practical standpoint in

⁹² Such information may be disclosed to a limited extent on direct examination and may be used during cross examination.

⁹³ See, *DiFrancesco v. Excam, Inc.*, 434 Pa. Super. 173, 642 A.2d 529 (1994)(affirming products liability verdict for plaintiff injured when his pocket derringer accidentally fired, while in his pocket); *Habecker v. Clark Equipment Co.*, supra (*Habecker III*)(admitting post-sale/pre-accident patents). See also, *Madjic v. Cincinnati Machine Co.*, 370 Pa. Super. 611, 537 A.2d 334 (1988).

⁹⁴ *DiFrancesco*, supra. In general, exemplars demonstrating alternative designs should not open the door for the admission of state of the art evidence where the competitive product's identity is redacted. However, this should be presented to the court before trial by motion. Authentication could be made by the expert based upon personal knowledge and familiarity with the alternative design. See, *McCormick on Evidence* (3d Ed. 1984) § 213 at 370. New Pa.R.E. 901-902 conform to this established practice.

⁹⁵ In such circumstances, plaintiff will be opening the door for state of the art evidence. However, where the product's design fails to even meet the industry's standard for safety, such evidence may be relevant as direct evidence of product defect.

⁹⁶ See, e.g., *Trach v. Fellin*, ("*Trach II*"), supra 817 A.2d at 1122.

⁹⁷ For example, materials published by the National Safety Counsel, Consumer Product Safety Commission and others.

⁹⁸ There is something wrong with a system where evidence is highly relevant to qualify an expert's opinion as generally accepted or sufficiently reliable for qualifications under *Frye* Pa R.E. 702, but inadmissible as part of the evidence to be considered at trial. Simply put, Pennsylvania should adopt F.R.E. 803 (18), the learned treatise exception to hearsay.

⁹⁹ See, *Duchess v. Langston Corp.*, 564 Pa. 529, 769 A.2d 1131, 1150 (2001)(affirming reversal of trial court preclusion of post-sale design changes as evidence of feasibility and for purposes of impeachment); *Petree v. Victor Fluid Power, Inc.*, supra

¹⁰⁰ It is important to note that there is no legal requirement that a 402A plaintiff present evidence of an actual feasible alternative design. See, *DiFrancesco v. Excam*, supra. In *DiFrancesco*, the plaintiff was injured when a derringer discharged while in plaintiff's sweater vest pocket. The facts established that the gun's firing hammer was in a "pseudo, half-cocked" position at the time of the accident and that it discharged while plaintiff was bent over at an ice machine. Plaintiffs presented expert testimony to state two design defects. First, they contended that the gun was defective because, instead of 3 established hammer position, there was a fourth, unsafe pseudo-cocked position which presented an unsafe danger to its user or operator. They suggested, but did not present actual evidence, to show that this fourth hammer position should be eliminated from the design. Second, plaintiffs contended that the gun was defective because the hammer was designed so that an accidental blow could result in unintended

most pure design cases.¹⁰¹ Some of the most descriptive evidence available to demonstrate such a design can be presented through patents. For example, *Habecker III*, the United States Court of Appeals for the Third Circuit reversed the trial court under an abuse of discretion standard for precluding post-sale/pre-accident patent evidence, finding that such evidence was relevant to establish feasible alternative design. The Court further rejected the argument that the defendant did not think of the design or know about it at the time of the original sale as irrelevant, where the plaintiff proffered evidence that, notwithstanding the post-sale development, such a design alternative was feasible at or before the product was sold. The court further found that it was error to admit the defendant's opinion that such a proposed alternative design was perceived to be "undesirable" or "impracticable" because such "state of mind" evidence impermissibly injected negligence "reasonable person" evidence into a strict product's liability action. Feasibility can be established through expert testimony supported by patents, exemplars and other evidence as set forth above. This can be done on direct, through the trial expert, or on cross examination.¹⁰²

The Pennsylvania Supreme Court has also expressly rejected "state of the art"¹⁰³ evidence in both product design and warning cases brought under 402A.¹⁰⁴ Consequently, industry standards, custom and practice, ANSI and OSHA standards are irrelevant as a matter of law in a strict products liability action.¹⁰⁵

discharge. Plaintiffs did not present any prototype of an alternative design. They did not produce evidence of relative cost considerations or evidence regarding additional hazards created by the alternative design. Defendant moved for JNOV and was denied. The Pennsylvania Superior Court affirmed. There is no legal requirement of establishing a feasible alternative design in the sense that the plaintiff must present evidence of a prototype, comparative costs or hazard studies. *Id.* Rather, all plaintiff must show is that the present design "should have been designed more safely." *Id.* In the *DiFrancesco* case, this was established through expert testimony based upon patent information and comparable product comparison. Moreover, there will always be some products which have really no redeeming market value. Consider, for example, lawn darts, or "pull-backs", a "safety device" consisting of shackles which were designed to pull an operator's hands out of a power press' point of operation area as the ram descended.

¹⁰¹ Patent evidence is evidence of a feasible alternative design. See, *Habecker (III)*, *supra*; *Matsushita Electric Indus., Ltd. v. Zenith Radio Corp.*, 723 F.2d. 238, 276-77 (3d Cir. 1983) (patent evidence reasonably relied upon by expert under F.R.E. 703).

¹⁰² See, *DiFrancesco v. Excam, Inc. s supra* (establishing defect through patent evidence and exemplar alternative designs).

¹⁰³ State of the art evidence refers to industry standards, government or regulatory licensing standards, technological feasibility and capability and industry custom. See, *Carrecter v. Colson Equipment Co.*, 499 A.2d. 326, 329, n. 6 (Pa. Super. 1985).

¹⁰⁴ See, *Lewis v. Coffing Hoist Div., Duff-Norton Co., Inc.*, 528 A.2d 590 (Pa. 1987); *Carrecter v. Colson Equipment Co.*, 499 A.2d 326 (Pa. Super. 1985). See also, *Santiago v. Johnson Machine and Press Corp.*, 834 F.2d 84 (3d Cir. 1987).

¹⁰⁵ See, *Madjic, supra* (precluding ANSI standards); *Sheehan v. Cincinnati Machine Co.*, 555 A.2d 1352 (Pa. Super. 1989) (precluding OSHA regulations).

Pennsylvania recognizes that product sellers are the guarantors of their product's safety. They have a strict liability duty to sell their product with all feasible safety designs and warnings. This is a "non-delegable" duty which has several implications in product cases.¹⁰⁶ First, safety cannot be sold as optional equipment. Where this occurs, these options may be used as evidence of defect. Second, as a result of this non-delegable duty, a product seller cannot attempt to deflect blame onto an injured worker's employer for not properly guarding a product it sold. Moreover, evidence that the seller attempted to sell the buyer a safety device as optional equipment, but this was rejected - (the "they didn't want it" defense) - is irrelevant as a matter of law.¹⁰⁷ All such claims are irrelevant as a matter of law.

The Breadth of Pa.R.E. 703 and Limits of Pa. R.E. 705

The recent expert evidence decisions in *Trach* and *Grady* represent only part of the considerations necessary by trial counsel when presenting expert testimony. Pennsylvania Rule of Evidence 705 is a relatively unexamined area that regulates the scope of expert testimony, as permitted by Rule 703.¹⁰⁸ These Rules must be carefully considered when presenting direct testimony and with regard to expert discovery. Pennsylvania Rule of Evidence 703 states:

Rule 703. Bases of Opinion Testimony by Experts

¹⁰⁶ In *Sheehan v. Cincinnati Shaper Machine Co.*, *supra*, the Pennsylvania Superior Court stated:

The essence of [defendant's] argument is that [defendant] acted reasonably by assigning the [subject product] without a safety guard since OSHA standards place the responsibility for providing a safety guard on the buyer employer.

* * *

We conclude that the OSHA regulations proffered would introduce into a strict liability action the reasonableness of [defendant's] failure to provide the new safety device for this machine, an issue irrelevant to whether liability attaches. Accordingly, the trial court did not err by sustaining [plaintiff's] objections to the introduction of this evidence.

* * *

In addition, a manufacturer has a non-delegable duty to ensure that its product is safe as of the time the product leaves its control. *Azzarello v. Black Bros. Co.*, 480 Pa. 547, 559, n.12, 391 A.2d 1020, 1027, n.12 (1978).

Id. 555 A.2d at 1354-55.

¹⁰⁷ *Id.* In *Sheehan*, *supra*, the defendant argued that it had attempted to sell a guard to the plaintiff's employer but that the employer rejected this offer. This was precluded at trial.

¹⁰⁸ In *Hansen v. Wyeth, Inc.* 72 Pa D&C 4th 225 (Pa. 2005). Judge Bernstein found only a handful of cases discussing Pa. R.E. 705. See, *McIntyre v. Philadelphia Housing Authority*, 816 A.2d 1204 (Pa. Cmwlth. 2003) (board certified neurologist complied with Pa. R. E. 705 when he detailed facts derived from a neurological exam he performed, a review of the plaintiff's medical records, a survey of a neurological database and a medical literature search); *Starr v. Veneziano*, 560, Pa 650, 747 A.2d 867 (2000) (government immunity applied pursuant to 42 P.C.S. §8541-8564); *Wenger v. West Pennsboro Twp.*, 868 A.2d 638 (Pa. Cmwlth 2005) (reversing summary judgment by finding that the trial court erred in precluding an expert's reasonable reliance upon reports not in evidence); *Commonwealth v. Smith*, 580, PA. 392, 861 A.2d 892 (Pa. 2004).

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.

Pennsylvania Evidence Rule 705 states:

Rule 705. Disclosure of Facts or Data Underlying Expert Opinion

The expert may testify in terms of opinion or inference and give reasons therefor; however, the expert must testify as to the facts or data on which the opinion or inference is based.

While Pennsylvania Rule 703 permits experts to rely upon information that is of a type reasonably relied upon by experts in their particular field to form opinions, Rule 705 suggests that this information should be part of the actual record. Not many cases discuss this interplay. However, Judge Bernstein in Philadelphia recently ordered a new trial after the plaintiff's expert, who testified at trial, identified the entire record as the basis for his trial opinions, but could not identify the items with particularity during cross-examination.¹⁰⁹

By contrast, Federal Rule 705 does not require the proponent of expert testimony to disclose the facts underlying an expert's opinion during direct examination. That is left for cross examination.¹¹⁰

Pennsylvania's learned treatise doctrine and the apparent inconsistency between Rules 703 and 705 are reconciled by the "*Thomas Exception*" recognized by the Pennsylvania Supreme Court in *Commonwealth v. Thomas*.¹¹¹ In *Thomas*, the Pennsylvania Supreme Court affirmed a second degree murder conviction based upon the defendant's fatal shooting of a teenage boy. The defendant asserted criminal insanity and other defenses at trial. The Commonwealth presented contrary evidence to show that the defendant knew right from wrong at the time of the homicide. To support its claims, the Commonwealth relied upon a psychiatric opinion, based upon an examination, a review of the defendant's school records and upon the opinions of a court psychologist who had administered psychological testing to the defendant.

¹⁰⁹ See, *Hansen v. Wyeth, Inc.*, 72 Pa. D. & C.4th 225 (Phila. 2005); 2005 Phila. Ct. Com. PI LEXIS 495 (Phila. 2005)

¹¹⁰Federal Rule 705 states:

Rule 705. Disclosure of Facts or Data Underlying Expert Opinion

The expert may testify in terms of opinion or inference and give reasons therefor without first testifying to the underlying facts or data, unless the court requires otherwise. The expert may in any event be required to disclose the underlying facts or data on cross-examination.

¹¹¹ 444 Pa. 436, 282 A.2d 683 (1971).

On appeal, the defendant argued that the Commonwealth's expert's reliance upon this information introduced inadmissible hearsay in his criminal trial and requested a new trial based upon prejudicial error. The Supreme Court disagreed. It concluded that the Commonwealth's expert's reliance upon the court psychologist's testing records was reasonable under the circumstances -- such testing information is reasonably relied upon by such experts in the field. In so holding, the Supreme Court rejected Pennsylvania prior case law in favor of the "wise and salutary" law of other jurisdictions where such reasonable reliance was routinely permitted.¹¹² This exception, permitting medical experts to rely upon information and data, not in the court record, when reasonably relied upon by experts in their field, became known as the *Thomas* exception to the hearsay rule.

Eventually, the *Thomas* exception extended to civil matters and to non-medical experts.¹¹³ The official notes to Pennsylvania Rule of Evidence 703 make explicit reference to *Commonwealth v. Thomas, supra*, and expressly recognize that "Pennsylvania courts have endorsed and expanded the principle that experts may base their opinions on evidence which is otherwise inadmissible if the evidence is of a type reasonably relied upon by experts in the particular field.

¹¹² As the Supreme Court stated in *Thomas*:

[S]everal jurisdictions influenced by the teaching of highly regarded legal commentators have recognized an exception to this . . . [hearsay] rule and have permitted medical witnesses to express opinion testimony on medical matters based, in part, upon reports of others which are not in evidence, but which the expert customarily relies upon in the practice of his profession. * * * It appears to us that the foregoing limited exception is wise and salutary, hence we adopt it as the law in Pennsylvania.

282 A.2d at 698-699.

¹¹³ See, *Commonwealth v. Mitchell*, 391 Pa. Super. 100, 570 A.2d 532 (1990)(medical examiner properly stated opinions regarding manner and cause of death, based upon an autopsy report prepared by another examiner living abroad); *Kearns v. DeHaas*, 377 Pa. Super. 200, 546 A.2d 1226 (1988)(citing Federal Rule of Evidence 703, as a reasonable extension of the *Thomas* rule, the Superior Court upheld the opinions of a vocational expert regarding future lost earnings, premised upon the expert's reliance upon psychological and/or medical data). In *Kearns*, the Superior Court cited with approval similar extensions of *Thomas* in other civil actions. See, *Maravich v. Aetna Life and Cas. Co.*, 350 Pa. Super. 392, 504 A.2d 896 (1986)(fire marshal properly stated opinion based on what firemen under his supervision told him about the scene); *Steinhauer v. Wilson*, 336 Pa. Super. 155, 485 A.2d 477 (1984)(a construction expert may state his cost opinion based on figures provided by contractors with whom he has consulted). See also, *Bolus v. United Penn Bank*, 363 Pa. Super. 247, 525 A.2d 1215 (1987), stating that "the applica[tion] of *Thomas* is not limited to the medical profession. See also, *Commonwealth v. Daniels*, 480 Pa. 340, 390 A.2d 172 (1978), wherein the Pennsylvania Supreme Court stated:

[T]he opinion[s] of expert witnesses must invariably rest, at least in part, upon sources that can never be proven in court. An expert's opinion is derived not only from records and data, but from education and a lifetime of experience. Thus, when the expert witness has consulted numerous sources, and uses that information, together with his [or her] own professional knowledge and experience, to arrive at an opinion, that opinion is regarded as evidence in its own right and not as hearsay in disguise.

390 A.2d at 177.

The question of whether information is of a type that is “reasonably relied upon” by the expert in the field is a preliminary question determined by the court pursuant to Pa.R.E. 104.¹¹⁴ Once again, pursuant to *Trach II, supra*, the trial court will base its conclusions, with an eye favoring admissibility, where the proffered expert states that, based on his knowledge, learning or experience, such materials are reasonably relied upon by experts in his or her field. To support such claims, the trial judge may consider inadmissible evidence that supports the expert’s opinion regarding reasonable reliance. For example, it is not surprising that mechanical engineers may reasonably rely upon patents and learned treatises when reaching an opinion regarding a feasible alternative design. Accordingly, despite the present schism between state and federal evidence law regarding the learned treatise exception and patent evidence, once again, such matters are relevant for consideration by the court when evaluating an expert’s underlying opinion. Moreover, a court may well abuse its discretion in precluding such information through an overly aggressive gate keeping philosophy, as was done by the trial court in *Trach II* and in *Grady* with regard to the plaintiff’s otolaryngologist expert.¹¹⁵ Where there is a disagreement between party experts regarding whether such information is reasonably relied upon, in most situations, the court should permit admission.

Accordingly, Pennsylvania Rule of Evidence 705 is a rule informed by Rule 703. Rule 705 is merely a sorting rule. It only requires an expert to sort and identify the record evidence upon which that expert has based his or her opinion. The difference between state and federal court is that in Pennsylvania this identification process must be performed on direct examination. In State Court, the identification on direct is mandatory, whereas in federal court is it permissive to allow this to be examined on cross examination. If the expert’s opinion is based upon information and data that is not part of the record, pursuant to Rule 703, this is not fatal to his

¹¹⁴ Official Comments. *See also*, Edward D. Ohlbaum, *Ohlbaum on the Pennsylvania Rules of Evidence*, 2004-2005 ed.(Matthew Bender 2004), Section 703.05 at 515-516. Pennsylvania Rule of Evidence 104 states:

Rule 104. Preliminary Questions

- (a) Questions of Admissibility Generally. Preliminary questions concerning the qualification of a person to be a witness, the existence of a privilege, or the admissibility of evidence shall be determined by the court, subject to the provisions of subdivision (b). In making its determination it is not bound by the rules of evidence except those with respect to privileges.
- (b) Relevancy Conditioned on Fact. When the relevancy of evidence depends upon the fulfillment of a condition of fact, the court shall admit it upon, or subject to, the introduction of evidence sufficient to support a finding of the fulfillment of the condition.
- (c) Hearing of Jury. Hearings on the admissibility of evidence alleged to have been obtained in violation of the defendant’s rights shall in all cases be conducted outside the presence of the jury. Hearings on other preliminary matters shall be so conducted when the interests of justice require, or when an accused is a witness and so requests.
- (d) Testimony by Accused. The accused does not, by testifying upon a preliminary matter, become subject to cross-examination as to other issues in the case.
- (e) Weight and Credibility. Even though the court has decided that evidence is admissible, this does not preclude a party from offering evidence relevant to the weight or credibility of that evidence.

¹¹⁵ Clearly, the articles cited by the expert in his report were “reasonably relied upon” to form that expert’s opinion. Pa.R.E. 703.

opinion at trial where that non-record information is “reasonably relied upon” by experts in his or her field.”

In fact, when an opinion is based on non-record information, this should be separately identified. Such information is relevant for a jury to consider simply to evaluate and assign weight to the expert’s opinion. Pennsylvania Rule of Evidence 105 permits the court to give a limiting instruction regarding such evidence.¹¹⁶ Rule 105 provides for “limited admissibility” for such evidence. It can be modified, redacted and heard in limited fashion by the jury at the court’s discretion. Even under present law, evidence such as learned treatises and patents should be identified for the jury so that they can properly evaluate and assign weight to an expert’s opinion proffered at trial.

This is the treatment proposed by the Pennsylvania Supreme Court in *Alderidge v. Edmunds*.¹¹⁷ In *Alderidge, supra*, the Supreme Court stated:

There is no question that if published material is authoritative and relied upon by experts in the field, although it is hearsay, an expert may rely upon it in forming his opinion; indeed, it would be unreasonable to suppose that an expert's opinion would not in some way depend upon the body of works preceding it. Pennsylvania courts have thus permitted, subject to appropriate restraint by the trial court, limited identification of textual materials (and in some circumstances their contents) on direct examination to permit an expert witness to fairly explain the basis for his reasoning. See P.R.E. 705 (providing that "the expert may testify in terms of opinion or inference and give reasons therefor"); see also *In re: C.R.S.*, 696 A.2d 840, 845, n.7 (Pa. Super. 1997) (suggesting that experts may refer to published works serving as the basis for their opinions). See generally *Cummings v. Nazareth Borough*, 430 Pa. 255, 265, 242 A.2d 460, 466 (Pa. 1968) (plurality opinion) (stating that "it is entirely proper in examination and cross-examination for counsel to call the witness's attention to published works on the matter which is the subject of the witness's testimony"). Since, however, the purpose for which treatises may be referenced on direct examination is generally limited to explaining the reasons underlying the opinion, the trial court should exercise careful control over their use to prevent them from being made the focus of the examination. Additionally, the trial court should issue appropriate limiting instructions. See generally Pa.R.E. 105 ("when evidence which is admissible as to one party or for one purpose but not admissible as to another party or for another purpose is admitted, the court upon request shall, or on its

¹¹⁶ Pennsylvania Rule of Evidence 105 states:

Rule 105. Limited Admissibility

When evidence which is admissible as to one party or for one purpose but not admissible as to another party or for another purpose is admitted, the court upon request shall, or on its own initiative may, restrict the evidence to its proper scope and instruct the jury accordingly.

¹¹⁷ 571 Pa. 323, 750 A.2d 292 (2000).

own initiative may, restrict the evidence to its proper scope and instruct the jury accordingly").¹¹⁸

The above discussion shows that, despite great strides made in *Grady* and *Trach II*, more clarification is needed with regard to expert testimony, particularly in products liability cases, where a liability expert will routinely rely upon treatises and patent information. There is also a need to reconsider Pennsylvania's refusal to adopt F.R.E. 803(18), the learned treatise exception. After all, if the court believes it to be an important part of its role to evaluate expert testimony, based in part upon its review of the expert's materials, including learned treatises, which, while not necessarily independently admissible, tend to support the expert's underlying opinion, is it so surprising to believe that a jury might find such information helpful to their evaluation of the expert's opinion? It seems that this issue is still being considered by the Supreme Court.¹¹⁹

CONCLUSION

Pennsylvania product liability law continues to protect those injured by defective products, despite significant attempts to restrict such claims. In fact, this past year demonstrated continued growth in Pennsylvania law in these areas.¹²⁰ The Pennsylvania Supreme Court's decision in *Grady* is a positive development in expert witness law. However, several areas need further development and change. First, Pennsylvania should adopt the federal exception to hearsay for learned treatises. Such evidence is sufficiently reliable to be considered by most juries as just substantive evidence. Second, Pennsylvania should follow federal rules regarding the disclosure of materials reasonably relied upon by experts, pursuant to F.R.E. Rule 705. Nevertheless, with court control, such evidence should be subject to limited admission pursuant to Rules 104-105 of the Pennsylvania Rules of Evidence.

¹¹⁸ *Id.*, 750 A.2d at 332-333. In *Alderidge*, a defense pediatric medical expert was permitted to testify on direct by referring explicitly to a medical treatise, blown up and displayed before the jury. The Supreme Court found there to be error in the extent of the display, but affirmed a verdict for defense because such error, if it occurred, was harmless.

¹¹⁹ *See, Alderidge v. Edmunds*, 750 A.2d at 297, n.4:

Our evidentiary rules also permit limited use of treatises on cross-examination for impeachment, *see Jones [v. Costantino]*, 429 Pa. Super. 73, 631 A.2d 1289 (1993); *Madjic*, and this Court has not foreclosed the possibility that there may be other valid, nonhearsay purposes that may support the proffer of treatise materials. *Cf., e.g., Fletcher v. Ford Motor Co.*, 128 Mich. App. 823, 342 N.W.2d 285 (Ct. App. Mich. 1983)(stating that "learned treatises discussing the safety of a product should . . . be admissible in the plaintiff's case-in-chief to raise a presumption of notice[;] this is a non-hearsay purpose").

¹²⁰ *See, Forrest v. Beloit Corp.*, 424 F.3d 344 (3d Cir. 2005)(precluding negative evidence regarding the alleged absence of prior accidents proffered as circumstantial evidence to claim an absence of defect, precluded on Rule 401-403 grounds); *Smalls v. Pittsburgh Corning Corp.*, 843 A.2d 410 (Pa. Super. 2004)(Pa.R.E. 407 does not preclude evidence of post-sale or post-accident changes in warnings when proffered for impeachment, or to prove other matters, if controverted, such as ownership, control, or feasibility of precautionary measures). Such evidence is admissible as substantive evidence of defect. *Sell v. Ingersoll-Rand Co.*, 136 Fed. Appx. 545 (3d Cir. 2005)(remedial measures taken by a non-party are admissible); *See also, Phillips v. Cricket Lighters*, 883 A.2d 439 (Pa. 2005)(permitting claim of product negligence to proceed, but granting summary judgment on breach of warranty and punitive damages claims).

