

OTIS THOMAS AND COLA THOMAS,	:	IN THE SUPERIOR COURT OF
	:	PENNSYLVANIA
Appellants	:	
	:	
v.	:	
	:	
THE WEST BEND COMPANY, INC., G.J.	:	
ROSSI AND SON, HENRY BALL	:	
ELECTRIC, IRWIN H. ENGLISH	:	
COMPANY, AND ARTUCK ALARM	:	
	:	
Appellees	:	
	:	
APPEAL OF: OTIS THOMAS	:	No. 2170 EDA 1999

Appeal from the Order dated June 1, 1999
in the Court of Common Pleas of Philadelphia County, Civil Division,
at No. 1631, February Term, 1995.

BEFORE: JOYCE, LALLY-GREEN, and BECK, JJ.

OPINION BY LALLY-GREEN, J.: Filed: October 5, 2000

¶ 1 Appellant, Otis Thomas, appeals from the order entered June 1, 1999, granting summary judgment in favor of Defendant/Appellee West Bend Co. ("West Bend"). The primary issue in this case is whether the trial court abused its discretion in finding that an expert opinion was inadmissible under ***Frye v. United States***¹ and its progeny. We affirm.

¶ 2 The facts of the case are as follows. On February 15, 1995, Appellant filed a products liability action against West Bend. Appellant alleged that on April 1, 1993, he suffered a severe electrical shock injury while plugging a West Bend popcorn popper into a receptacle. Appellant further alleged that

¹ ***Frye v. United States***, 293 F. 1013 (App. D.C. Cir. 1923).

the incident caused severe injuries, including burns to his left arm, congestive heart failure, dilated cardiomyopathy, and other heart ailments.

¶ 3 Appellant retained Dr. Nicholas L. DePace as a medical expert. Dr. DePace filed an expert report dated May 8, 1995. In his report, Dr. DePace noted the following facts. Appellant, age 24 at the time of the accident, had no significant cardiac history before the accident. R.R. 116a. On the day of the accident and the day after the accident, Appellant complained of abdominal pain, severe pain in the left arm and shoulder, and swelling of the left hand. *Id.* Appellant also began to see “floaters” and to experience tremors in his arm and hand. *Id.* Approximately four months later, in July 1993, Appellant was hospitalized with shortness of breath, chest pain, palpitations and epigastric pain. *Id.* At that point, Appellant was diagnosed with congestive heart failure. *Id.* at 117a. On August 8, 1993, Appellant was hospitalized with severe cardiomyopathy. *Id.* In February 1994, Appellant was again hospitalized for congestive heart failure. *Id.*

¶ 4 Based on the available medical records and Dr. DePace’s own examination of Appellant, there was no evidence of any alternative cause of Appellant’s cardiomyopathy, such as a virus, an infection, occupational toxins, ethanol or drug abuse, or underlying heart disease. *Id.* Dr. DePace explained that:

[t]he clinical history is very consistent with the onset of cardiomyopathy a short period after incurring his electric shock. The patient presented with abdominal pains early in his course which

presented itself during an abrupt congestive heart failure episode. This may have represented impassive congestion of his liver.

Id. Dr. DePace then cited two journal articles for the proposition that electrical current has been shown to cause myocardial necrosis, cardiac contusion, congestive heart failure, and cardiac arrhythmia. **Id.** at 118a.

Given these facts, Dr. DePace opined in relevant part that:

[T]he electrical injury was the only possible etiology for this patient's rather acute development of cardiomyopathy following the accident. ... [T]his patient experienced electrical current injury to his heart following his accidental electrocution on April 1, 1993, which resulted in myocardial necrosis with myocardial contusion and resultant congestive heart failure. This injury has required recurrent hospitalization, maintenance on cardiac medication, and will in the future require a heart transplant.

Id.

¶ 5 On February 14, 1997, West Bend filed a motion *in limine* to preclude Appellant from introducing any evidence linking Appellant's heart problems with the accident. West Bend argued as follows. First, Dr. DePace issued a new scientific theory when he opined that low voltage shocks cause cardiomyopathy; therefore, this opinion is subject to the **Frye** test. West Bend's Memorandum of Law in Support of Motion in Limine at 2; R.R. 45a. Second, Dr. DePace's opinion was inadmissible under **Frye** because he had not shown that a causal link between low voltage shock and cardiomyopathy is generally accepted by the relevant medical community. **Id.** at 4; R.R. 47a. Specifically, two articles (written by a total of six authors) do not

constitute general acceptance and also, the articles concerned severe electrocution, not low voltage shock. *Id.* at 4-5; R.R. 47a-48a. The two authors of those articles filed affidavits explicitly rejecting the proposition that their articles supported Dr. DePace's conclusions. *Id.* at 5-6; R.R. 48a-49a. Without a proper scientific foundation, West argued, Dr. DePace's opinion was inadmissible. *Id.* at 10-12; R.R. 53a-55a.

¶ 6 The trial court held an evidentiary hearing on the **Frye** issue. Appellant then filed a post-hearing answer to the motion *in limine* on July 10, 1998. West Bend filed a response on August 13, 1998. On September 2, 1998, the trial court granted West Bend's motion *in limine*. After the parties settled Appellant's claims for non-heart-related injuries, West Bend filed a motion for summary judgment with respect to Appellant's heart-related injuries. The trial court granted this motion on June 1, 1999. This appeal followed.

¶ 7 Appellant raises three issues on appeal.

- I. Whether the Honorable trial court committed an abuse of discretion or an error of law by applying a **Frye** analysis to the opinions of plaintiff's experts, when those expert opinions do not rely on any novel scientific advances that produce a new type of evidence.
- II. Whether, even assuming that **Frye** is applicable, the Honorable trial court committed an abuse of discretion and an error of law by precluding plaintiff's expert opinion regarding the cause of plaintiff's cardiomyopathy, when the underlying methodology is reliable and sound.

- III. Whether the trial court committed an abuse of discretion and an error of law by precluding plaintiff's expert opinion regarding the cause of plaintiff's cardiomyopathy, when the expert opinion satisfies the **Frye** test.

Appellant's Brief at 3.

¶ 8 Preliminarily, we set out the rationale of the trial court. In its opinion pursuant to Pa.R.A.P. 1925(a), the trial court reasoned as follows. First, Dr. DePace is an eminently qualified cardiologist. Trial Court Opinion, 2/17/2000, at 1-2. Second, it is undisputed that Appellant suffered a low voltage electric shock in the accident, and that Appellant suffers from dilated cardiomyopathy. **Id.** at 4. Third:

[N]one of the medical literature identify low voltage electrical shock as a cause of dilated cardiomyopathy. Dr. DePace testified that although there are numerous reports of electricity causing cardiomyopathic processes, he knew of only two specific articles which imply that low voltage electrical shock can cause a clinical picture which is not identified as Cardiomyopathy in the articles but which Dr. DePace classifies as "dilated cardiomyopathy."

[Footnote: Neither of the two incidents or patients described in the two articles parallel the medical picture in this case.]

Dr. DePace agrees that the diagnosis of "idiopathic dilated cardiomyopathy" is accepted in the medical profession. In those cases, there is no known etiology associated with the clinical presentation of cardiomyopathy. Dr. DePace further agrees, that other causes for dilated cardiomyopathy include alcohol, drugs, vitamin deficiencies, viruses, chemicals, toxins, and lead exposure. Dr. DePace is aware of no animal studies relevant to the question

of whether low voltage electrical shock can cause dilated cardiomyopathy. He is aware of no epidemiologic study on this phenomena [sic]. He can present no theory of the mechanism by which this injury is sustained from low voltage electric shock. Despite having treated approximately 1000 patients with cardiomyopathy in his 20 years of clinical practice, [Appellant] is the first patient he has ever diagnosed with dilated cardiomyopathy caused by low voltage electric shock.

Id. at 4-5. Finally, Dr. DePace is in the process of drafting a manuscript, which has yet to be published, describing Appellant's case as presenting a new, previously unidentified cause of dilated cardiomyopathy. *Id.* at 5.

¶ 9 After extensively reviewing *Frye* and its progeny, the trial court concluded that the **substance** of Dr. DePace's opinion was not generally accepted in the relevant medical community, and was therefore inadmissible under *Frye*, regardless of whether Dr. DePace exercised sound **methodology** in reaching his opinion. *Id.* at 21. ("Neither his exemplary qualifications, nor his extensive experience, nor the soundness of his methodology is sufficient to overcome the novelty of his scientific advance.")

¶ 10 We also observe that the trial court granted summary judgment because Appellant could present no admissible expert testimony linking the accident to his heart condition. It is undisputed that the trial court's prior order *in limine* precluding Dr. DePace's expert opinion was dispositive of the summary judgment motion. Appellant does not dispute that summary judgment was proper if the trial court correctly precluded Dr. DePace's

opinion. Thus, we will focus on the trial court's evidentiary ruling, rather than on the principles governing summary judgment.

¶ 11 Our standard of review is well settled. Absent a clear abuse of discretion or error of law, a trial court's decisions regarding expert testimony will be upheld. ***Estate of Wack v. Farmland Indus.***, 744 A.2d 265, 268-269 (Pa. Super. 1999). When reviewing the court's factual findings, we are limited to determining whether those findings "rest on legally competent and sufficient evidence." ***In re Estate of Stout***, 746 A.2d 645, 647-648 (Pa. Super. 2000), *appeal denied*, 2000 Pa. Lexis 1888 (Pa. Aug. 4, 2000).

¶ 12 In ***Wack***, we discussed the ***Frye*** rule as follows:

With respect to novel scientific evidence, however, this discretion is tempered by the standard established in ***Frye v. United States***, 54 App. D.C. 46, 293 F. 1013 (D.C. Cir. 1923). The "***Frye*** test" was adopted by the Pennsylvania Supreme Court in ***Commonwealth v. Topa***, 471 Pa. 223, 369 A.2d 1277 (Pa. 1977). The ***Frye*** test directs "admissibility of the evidence depends upon the **general** acceptance of its validity by those scientists active in the field to which the evidence belongs." ***Topa***, at 1281 (emphasis in original). The ***Topa*** court explained the underlying rationale for this standard:

The requirement of general acceptance in the scientific community assures that those most qualified to assess the general validity of a scientific method will have the determinative voice. Additionally, the ***Frye*** test protects prosecution and defense alike by assuring that a minimal reserve of experts exists who can critically examine the validity of a scientific determination in a particular case. Since scientific proof

may in some instances assume a posture of mystic infallibility in the eyes of a jury of laymen, the ability to produce rebuttal experts, equally conversant with the mechanics and methods of a particular technique, may prove to be essential.

Topa, at 1282 (quoting *United States v. Addison*, 162 U.S. App. D.C. 199, 498 F.2d 741, 744 (D.C. Cir. 1974)).

In *Blum v. Merrell Dow Pharmaceuticals, Inc.*, 705 A.2d 1314 (Pa. Super. 1997), this Court further clarified the *Frye* test and emphasized it is used to assess the quality of expert scientific evidence prior to admission, so as not to mislead jurors with unreliable evidence. *Blum*, at 1317. *See also Checchio v. Frankford Hospital-Torresdale Division*, 717 A.2d 1058 (Pa. Super. 1998) (discussing the *Frye* standard for admissibility of scientific evidence).

Wack, 744 A.2d at 269 (footnote omitted).

¶ 13 With this background in mind, we turn to Appellant's first issue on appeal. Appellant argues that *Frye* does not apply because Dr. DePace's opinion is not the product of a new scientific invention or technique; rather, it was the product of traditional medical techniques and diagnostic tests. Appellant's Brief at 12-14. Appellant relies on *Commonwealth v. Crews*, 640 A.2d 395 (Pa. 1994).

¶ 14 *Crews* involved the admissibility of DNA testing. In that case, our Supreme Court wrote that the *Frye* test applies "where scientific advances produce new types of evidence." *Id.* at 399. In its discussion of *Frye* and its progeny, the *Crews* court cited to a number of cases involving new

scientific inventions or techniques. *Id.* at 399-400, citing *Topa*, 369 A.2d at 1281 (spectrograms/voiceprints); *Commonwealth v. Nazarovitch*, 436 A.2d 170, 172 (Pa. 1981) (hypnosis as a forensic tool); and *Commonwealth v. Zook*, 615 A.2d 1, 11-12 (Pa. 1992) (electrophoresis), *cert. denied*, 507 U.S. 974 (1993).

¶ 15 On the other hand, *Crews* does not expressly limit *Frye* to new inventions or techniques. On the contrary, the broad language of *Crews* encompasses not only new inventions, but also new theories which have been developed by traditional techniques. Indeed, our courts have often applied *Frye* to situations where experts use traditional techniques to announce a new syndrome or theory of causation. For example, in *Commonwealth v. Dunkle*, 602 A.2d 830, 834 (Pa. 1992), our Supreme Court applied *Frye* to an expert's claim that sexually abused children display a particular behavioral profile. In *Wack*, 744 A.2d at 270-271, this Court applied *Frye* to a doctor's claim that exposure to benzene causes adenocarcinoma. In *Checchio*, 717 A.2d at 1060-1061, this Court applied *Frye* to a doctor's claim that hypoxia causes autism and severe developmental disorders. Finally, in *Blum*, 705 A.2d at 1319-1325, this Court applied *Frye* to a doctor's claim that exposure to Bendectin causes a particular type of birth defect.² In short, *Frye* applies not only to new

² We note that our Supreme Court granted allowance of appeal in *Blum* on January 19, 1999. *Blum*, 735 A.2d 1267 (Pa. 1999).

inventions, but “**whenever** science enters the courtroom.” *Blum*, 705 A.2d at 1317 (emphasis added). Here, the trial court properly applied *Frye* because “science” entered “the courtroom.” This is so even if we assume the science was the product of traditional medical techniques and diagnostic tests. Appellant’s first claim fails.

¶ 16 Next, Appellant argues that Dr. DePace’s opinion satisfied the *Frye* test because Dr. DePace used indisputably sound methodology to arrive at his opinion. Appellant’s Brief at 14-20. In other words, Dr. DePace properly used all of the traditional tools of cardiology (such as “EKG results, biopsy studies, echocardiograms, blood work, the patient’s history, and film studies”); therefore, his resulting conclusion is admissible, even if it has not yet been generally accepted in the relevant medical community. *Id.*

¶ 17 Appellant’s position is not supported by current Pennsylvania law. “Admissibility requires both the causal relationship **and** the methodology to be generally accepted by the scientific community.” *Wack*, 744 A.2d at 269 (emphasis added), *citing Blum*, 705 A.2d at 1322; **see also, Checchio**, 717 A.2d at 1060 (same). Moreover, our Supreme Court has consistently maintained that *Frye* applies to scientific evidence itself, not merely to the methodology underlying such evidence. **See, Commonwealth v. Blasioli**, 713 A.2d 1117, 1119 (Pa. 1998) (“both the theory and technique underlying novel scientific evidence must be generally accepted”); *Dunkle*, 602 A.2d at 832 (*Frye* applies to “the subject about which the expert will testify”);

Zook, 615 A.2d at 11 (“scientifically adduced evidence” must satisfy the **Frye** standard); **Topa**, 369 A.2d at 1281 (**Frye** applies to scientific principles and discoveries). Accordingly, we hold that the trial court committed no error of law by requiring the substance of Dr. DePace’s opinion to be generally accepted by the relevant medical community.³ Appellant’s second claim fails.

¶ 18 Finally, Appellant argues that the trial court abused its discretion in finding that Dr. DePace’s opinion was not generally accepted in the relevant community. Appellant argues that the trial court misapprehended the

³ Appellant cites **Blum** for the proposition that an expert’s opinion is admissible if either the causal relationship or the underlying methodology is generally accepted. Appellant’s Brief at 16-17. As noted above, this Court has interpreted **Blum** in precisely the opposite manner: “both the causal relationship **and** the methodology” must be generally accepted. **Wack**, 744 A.2d at 269 (emphasis added).

Appellant also cites a number of federal cases in support of his position. Appellant’s Brief at 16-20, citing, *inter alia*, **McCullock v. H. B. Fuller Co.**, 61 F.3d 1038 (2d Cir. 1995); **In re: Paoli R.R. Yard PCB Litig.**, 35 F.3d 717 (3rd Cir. 1994), *cert. denied*, 513 U.S. 1190 (1995); **United States v. Quinn**, 18 F.3d 1461 (9th Cir. 1994), *cert. denied*, 512 U.S. 1242 (1994); **Lappe v. American Honda Motor Co.**, 857 F. Supp. 222 (N.D.N.Y. 1994), *affirmed*, 101 F.3d 682 (2d Cir. 1996); and **Dang Vang v. Toyed**, 944 F.2d 476 (9th Cir. 1991). **McCullock**, **Paoli**, **Quinn**, and **Lappe** are inapposite because they rely on the less stringent federal standards governing the admissibility of scientific evidence, as set forth in **Daubert v. Merrell Dow Pharmaceuticals**, 509 U.S. 579 (1993). Our Supreme Court has not yet adopted **Daubert** as the governing standard in Pennsylvania. **Blasioli**, 713 A.2d at 1119 n.1.

In **Dang Vang**, an anthropologist was permitted to testify regarding certain aspects of the Hmong culture and the position of women within that culture. **Dang Vang**, 944 F.2d at 480-481. The defendant argued that the expert’s testimony was inadmissible under **Frye**. *Id.* at 482. Without extended analysis, the Ninth Circuit Court of Appeals held that “this argument is inapposite because [the expert’s] testimony derived from his expertise and his study of the Hmong, rather than on a novel scientific theory.” *Id.* According to Appellant, **Dang Vang** stands for the proposition that expert testimony is admissible so long as it is based on accepted methodologies. Appellant’s Brief at 17. While we recognize that **Dang Vang** can be interpreted in this manner, we decline to follow this interpretation because it is inconsistent with Pennsylvania law. *See, Staub v. Toy Factory, Inc.*, 749 A.2d 527, 531 (Pa. Super. 2000) (*en banc*) (this Court need not follow federal court decisions on matters pertaining to Pennsylvania law).

nature of Dr. DePace's opinion, overlooked critical aspects of Dr. DePace's testimony, failed to credit West Bend's own experts' testimony, and failed to recognize relevant portions of the medical literature. Appellant's Brief at 21-26.

¶ 19 "It is the obligation of the appellant to make sure that the record forwarded to an appellate court contains those documents necessary to allow a complete and judicious assessment of the issues raised on appeal." ***Hrinkevich v. Hrinkevich***, 676 A.2d 237, 240 (Pa. Super. 1996) (citation omitted). "Under our Rules of Appellate Procedure, those documents which are not part of the 'official record' forwarded to this Court are considered to be non-existent And, these deficiencies may not be remedied by inclusion in a brief in the form of a reproduced record." ***D'Ardenne v. Strawbridge & Clothier, Inc.***, 712 A.2d 318, 326 (Pa. Super. 1998) (citation omitted), *appeal denied*, 734 A.2d 394 (Pa. 1998).

¶ 20 Appellant's argument is highly fact-intensive. To support his position, Appellant relies on the ***Frye*** hearing testimony and/or deposition testimony of many experts, including: Dr. DePace; Peter R. Kowey, M.D.; LeRoy Riddick, M.D.; and Andrew Munster, M.D. ***Id.*** at 21-26. None of this testimony, however, has been included in the certified record. Thus, these depositions are considered "non-existent."

¶ 21 We also note that Appellant has failed to identify all of the factual sources relied upon by the trial court in reaching its conclusion. Instead,

Appellant simply cites those portions of the testimony which tend to support his position. The relevant inquiry, however, is not whether evidence in the record supports Appellant's position; the relevant inquiry is whether sufficient competent evidence in the record supports the trial court's conclusions. **Stout**, 746 A.2d at 647. Given these deficiencies, we are not in a position to analyze Appellant's claim, let alone to find a clear abuse of discretion by the trial court.

¶ 22 Even if we were to overlook these substantial defects, we would not reverse the trial court's decision. Dr. DePace has drafted an unpublished article describing low voltage electric shocks as a newly-discovered cause of cardiomyopathy. By describing the cause as newly-discovered, he has acknowledged that his theory is not yet generally accepted in the field. While Dr. DePace has taken the first step toward establishing general acceptance of that proposition, it was not generally accepted at the time of the trial court's decision. The trial court, therefore, did not err by excluding this untested hypothesis under **Frye**. **Blum**, 705 A.2d at 1322 (doctor's conclusion that Bendectin causes clubfeet is not generally accepted, and therefore inadmissible under **Frye**, in part because no published studies have reached that conclusion).

¶ 23 Finally, Appellant argues that the trial court abused its discretion by focusing on Dr. DePace's specific diagnosis of cardiomyopathy. According to Appellant, it is generally accepted that electrical shocks can cause heart

damage, and that low voltage shocks cause all of the symptoms of cardiomyopathy. *Id.* at 22-23.⁴ Therefore, according to Appellant, the trial court erred by focusing narrowly on the lack of any specific link in the medical literature between low voltage shocks and cardiomyopathy *per se*. *Id.*

¶ 24 We disagree. The fact remains that Appellant is attempting to recover for a specific disorder known as cardiomyopathy, not merely for symptoms related to that disorder. Indeed, Dr. DePace was prepared to testify at trial that a low voltage shock caused that specific disorder. Given Appellant's condition and Dr. DePace's proposed testimony, the trial court did not abuse its discretion when it insisted upon a generally-accepted causal link between low voltage electric shock and cardiomyopathy. *Cf., Wack*, 744 A.2d at 270 (trial court did not abuse its discretion in excluding expert opinion that exposure to benzene causes a specific and rare form of cancer, notwithstanding the possibility that such exposure may cause other forms of cancer). Appellant's final claim fails.

¶ 25 For the reasons set forth above, we conclude that the trial court did not err in excluding Dr. DePace's expert opinion. In the absence of admissible expert testimony linking the accident to Appellant's heart condition, Appellant cannot proceed with his claim against West Bend.

⁴ Again, given the lack of evidence in the certified record, it is difficult (if not impossible) to determine the truth of this assertion.

J. A33019/00

Accordingly, the trial court did not err by granting summary judgment to West Bend.

¶ 26 Order affirmed.