

RIDING THE RAILS WITH *DAUBERT*.

R. Dean Hartley
HARTLEY & O'BRIEN
827 Main Street
Wheeling, WV 26003
(304) 233-0777

I. Introduction.

The litigation of a case brought under the FELA normally involves the use of some type of expert whether accident reconstructionist, biomechanic engineer, safety consultant, orthopedic surgeon, economist, or family physician. With the adoption of *Daubert*¹ over five years ago, many of the experts that were once qualified, knowledgeable, and able to testify are now subject to attacks from the defendant that their methodology is unreliable, unscientific, or speculative, and therefore inadmissible. The United States Supreme Court recently heard oral argument in *Kumho Tire Co. v. Carmichael*². A case in which the circuit court of appeals rejected the notion that *Daubert* applies to all forms of expert testimony. It remains to be seen if the *Daubert* standards and analysis apply to all expert opinions, only some expert opinions, technical expert opinions, or simply scientific expert opinions.

II. *Daubert* Analysis.

In jurisdictions where *Daubert* is controlling or the underpinnings of the case have been adopted by the state supreme court, the trial court normally is required to undertake a two-step analysis before the testimony is admissible.

First, the [trial] court must determine whether the expert's testimony pertains to

¹*Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 Ct. 786 (1993).

²No. 97-1709. The underlying appellate decision was *Carmichael v. Samyang Tire, Inc.*, 131 F.3d 1433 (11th Cir. 1997) cert. granted by *Kumho Tire Co., Ltd. v. Carmichael*, 1998 WL 185220 (U.S. June 22, 1998).

scientific knowledge. This task requires that the [trial] court consider whether the testimony has been subjected to the scientific method; it must rule out >subjective belief or unsupported speculation.=@ *Porter v. Whitehall Lab.*, 9 F.3d 607, 614 (7th Cir. 1993) quoting *Daubert*, 509 U.S. at 590, 113 S.Ct. At 2795. Second, the [trial] court has to Adetermine whether the evidence or testimony assists the trier of fact in understanding the evidence or in determining a fact in issue. That is, the suggested scientific testimony must Afit@ the issue to which the expert is testifying.@ *Porter, Id.* at 616. This two-step Adetermination is for the court to make under Fed.R.Evid. 104(a)@ or the state equivalent. *In re: Conrail Toxic Tort FELA Litig., Snyder v Consolidated Rail Corp.*, 1998 WL 465897 at *2 (W.D. Pa. 1998).

In *Daubert*, the Court listed four nonexclusive guideposts which the trial court should consider in determining whether the proffered scientific expert testimony fairly can be characterized as a scientific opinion. The nonexclusive factors in *Daubert* are the following: A(1) whether the theory can be and has been tested; (2) whether the theory has been subjected to peer review and publication; (3) the known or potential rate of error; and (4) the general acceptance of the theory in the scientific community.@ *Dukes v. Illinois Central R. Co.*, 934 F.Supp. 939, 948(N.D. Ill. 1996) quoting *Gruca v. Alpha therapeutic Corp.*, 51 F.3d 638, 643 (7th Cir. 1995); *Daubert*, 509 U.S. at 591-95, 113 S.Ct. at 2796-97.

However, as the Third Circuit explained

We think that the primary limitation on the judge=s admissibility determination is that the judge should **not** exclude evidence simply because he or she thinks that there is a flaw in the expert's investigative process which renders the expert=s conclusions incorrect. The judge should only exclude the evidence if the flaw is large enough that the expert lacks Agood grounds@ for his or her conclusions.

In re Paoli R.R. Yard PCB Litigation, (Paoli II), 35 F.3d 717, 746 (3rd Cir. 1994).

Most importantly, in cases in which a party argues that an expert's testimony is unreliable because the conclusions of an expert's study are different from those of other experts, there is no basis for holding the disparaged opinion inadmissible. *Id.* at 746. See also *Hand v. Norfolk Southern Railway Co.*, 1998 WL 281946 (Tenn. App. 1998). Indeed, as the Supreme Court explained the inquiry's focus is solely on the [expert's] principles and methodology, not on conclusions they generate. *Daubert*, 509 U.S. at 595, 113 S.Ct. at 2797. *But see, General Electric Company v. Joiner*, 522 U.S. 136, 118 S.Ct. 512, 519, 139 L.Ed. 2d 508(1997) (But conclusions and methodology are not entirely distinct from one another.)

One must realize that *Daubert* did not work a radical change over evidence law nor did it create a special analysis for answering questions about the admissibility of all expert testimony. Rather, *Daubert* simply reiterated what the rules of evidence already mandated that the trial judge engage in the initial gatekeeping task of establishing whether proffered evidence is sufficiently reliable and relevant, and therefore admissible. *Daubert*, 509 U.S. at 597, 113 S.Ct. at 2799. However, the federal district and appellate courts have taken their gatekeeper role too seriously and have frequently applied too stringent of a reliability standard in the average case. Unfortunately, a trial court's ruling to admit or exclude expert scientific evidence is reviewable only for an abuse of discretion. *General Electric Company v. Joiner, supra.*

III. FELA's Liberal Standard of Negligence and Causation.

A case arising under the Federal Employers= Liability Act (FELA) utilizes a more lenient standard for determining negligence and causation. *Rogers v. Missouri Pacific RR. Co.*, 352 U.S. 500, 7 S.Ct. 443, 1 L.Ed.2d 493 (1957); *Pierce v. Southern Pacific Trans. Co.*, 823 F.2d 1366 (9th Cir. 1987). AA trial court is justified in withholding issues from the jury=s consideration only in those extremely rare instances where there is a zero probability either of employer negligence or that any such negligence contributed to the injury of an employee.@ *Hines v. Consolidated Rail Corp.*, 926 F.2d 262, 267 (3rd Cir. 1991) (quoting (*Pehowic v. Erie L.R.R.*, 430 F.2d 697 (3rd Cir. 1970))). The *Hines* court also opined that causation under FELA is broadly interpreted, and that a Amedical expert can testify that there was more than one potential cause of a plaintiff=s condition.@ *Hines*, 926 F.2d at 268.

As the Third Circuit stated A. . . the standard [of causation] under FELA can significantly influence a determination of the admissibility of [the expert=s] testimony. By enacting FELA, Congress desired to secure jury determinations in a larger proportion of cases than would be true of ordinary common law actions.@ *Hines*, 926 F.2d at 269. In *Hines*, the plaintiff could not prove that he ever handled PCB fluid. He presented no evidence as to the concentration of PCBs on the track where he worked. His blood and body fat showed no higher concentrations of PCBs than in the public at large. Plaintiff had also been a heavy smoker, a habit associated with bladder cancer. *Hines*, 926 F.2d at 270-71. Applying *U.S. v. Downing*, 53 F.2d 1224 (3rd Cir. 1985), the Third Circuit held that AFELA=s liberal standard of causation required the admission of evidence that might well have been excluded in a non-FELA case.@ *In re: Conrail Toxic Tort FELA Litig., Snyder v Consolidated Rail Corp.*, 1998 WL 465897 at *5.

To recapitulate, . . . as long as plaintiff=s expert presents scientifically reliable evidence that the toxic exposure could have played some role, however small, in causing plaintiff=s injuries, the testimony should be admitted under *Hines*. On the other hand, *Daubert*=s standard of admissibility Aextends to each step in an expert=s analysis all the way through the step that connects the work of the expert to the particular case.@ *Paoli II*, 35 F.3d at 743. Thus if the expert=s conclusion B or any inferential link that undergirds it B fails under *Daubert* to provide any evidence of causation, it must be excluded, even under *Hines*= liberal approach to admissibility.

In re: Conrail Toxic Tort FELA Litig., Snyder v Consolidated Rail Corp., 1998 WL 465897 at *6. *But see, Claar v. Burlington Northern Railway, Co.*, 29 F.3d 499, 504 (9th Cir. 1994) (The standard of causation under FELA and the standards for admission of expert testimony under the Federal Rules of Evidence are distinct issues and do not affect one another. FELA=s lower standard of causation does not mean that in FELA cases courts must allow expert testimony that in other contexts would be inadmissible. Expert testimony is necessary to establish even that small quantum of causation required by FELA.); *Taylor v. Consolidated Rail Corp.*, 114 F.3d 1189, (6th Cir. 1997) (unpublished disposition) (ASimply put, Taylor has confused the FELA standard of causation with the standard for admission of expert testimony. It is well established that the latter is controlled B even in cases arising under FELA B by the Federal Rules of Evidence and the seminal case of *Daubert*.)@ (citation omitted).

IV. Case Studies.

A review of the various cases discussing the applicability of *Daubert* to experts offered and tests relied on in FELA litigation is beneficial to determine the types of situations

that meet the admissibility standard established by the United States Supreme Court.

A. Railroad Employees as Experts.

1. *Lauria v. National Railroad Passenger Corp.*, 145 F.3d 593 (3rd Cir. 1998). Plaintiff fell walking the railroad tracks late at night and brought an action under the FELA. He attempted to offer a track and maintenance engineer as an expert to support his case. The district court excluded the witness as an expert and refused to permit him to opine as a lay witness. The Third Circuit reversed holding that we conclude that Slavin=s twenty years of experience with track equipment, maintenance, and safety procedures qualified him as an expert who could testify as to Amtrak=s responsibility to inspect and maintain the track in a safe condition." *Lauria*, 145 F.3d at 599. A>Specialized= knowledge can be based on sufficient practical or work experience in the field about which the witness is testifying, and it need not be based on testing or experiments beyond common understanding.@ *Id.*

2. *Rice v. Cincinnati, New Orleans & Pacific Ry. Co.*, 920 F.Supp. 732 (E.D. Ky. 1996). Plaintiff proffered fellow trainmen as expert witnesses regarding the proper design of the locomotive cab in which he was a passenger, and that the crossing where the accident occurred was unsafe. The court determined that under *Daubert* the testimony must be excluded as unreliable. The trainmen, although experienced on the railroad, did not have the expertise needed to offer opinions on the appropriate design of an engine cab or crossing. AUnder the Rules the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but also reliable.@ 920 F.Supp. at 738.

3. *Thirkill v. J.B. Hunt Transport, Inc.*, 950 F.Supp.1105 (N.D. Ala. 1996). FELA action brought against the railroad employer as a result of a collision at a

crossing. Plaintiff contended that the collision was partly the result of the speed required by NS, and also due to the location of the brake valve in the cab. Plaintiff offered no expert as to the speed or valve location causation issue. The Court noted that under *Daubert* A[n]either the plaintiff nor fellow crewmen are qualified to testify as design experts [concerning the valve location in the cab] . . . [and] the same reasoning applies to their testimony concerning speed.@ 950 F.Supp. at 1107.

B. Rope Failure Expert.

Cook v. American Steamship Co., 53 F.3d 733 (6th Cir. 1995). Defendant=s testing expert, although qualified on testing and failure analysis, was excluded under *Daubert* as offering nothing more than speculation that a marine rope had failed from exposure to a torch when he had not tested the rope and his observation of char marks were no better than those of the jury. AWe hold that [the witness=s] opinion was not admissible as an expert opinion because he failed to perform tests or otherwise call upon any >scientific, technical, or other specialized knowledge= that would have given him a valid basis upon which to form his opinion.@ 53 F.3d at 740.

C. Biomechanics Expert.

In *Smelser v. Norfolk Southern Railway Co.*, 105 F.3d 299 (6th Cir. 1997) plaintiff=s biomechanics expert was excluded under *Daubert* because his analysis of the seat belt was considered not A good science.@ In essence, the expert did not perform adequate testing and failed to consider all relevant factors in reaching his conclusion. He visually examined the vehicle=s shoulder belt. He did not examine it under a microscope. He did no

testing to determine if the marks on the belt were from the accident involving the plaintiff or another accident. He did not record the results of testing when he drove the vehicle and pressed on the brakes to see if the shoulder belt would hold. He also performed a test on the retractor assembly but admitted that his test results would be inaccurate if the mounting plate was not at zero degrees. However, he never inspected the vehicle or its factory specifications to ascertain the mounting plate angle. More importantly, although he Atested@ the assembly Aabout a hundred times,@ he recorded measurements only five or six times. Based on all of the aforementioned, he opined the shoulder belt was defective. Since the testing was found to be unscientific, not repeatable, and not subject to any peer review or publication or that there were generally accepted methods for testing seat belts in the field of biomechanics, the expert's opinions were excluded. 105 F.3d at 304-305.

D. Economist.

1. In *White v. Indiana Harbor Belt Railroad Co.*, 1998 WL 323625 (N.D. Ill 1998) the district court admitted the testimony of plaintiff=s economist even though the expert erred in creating his spreadsheet, included lost earnings for years the plaintiff was actually working, used the wrong base figures to calculate the loss of earning capacity, and generally made mistakes in calculating the loss. Considering *Daubert*, the court held that the mistakes did not preclude the testimony, but was fertile ground for cross-examination.

2. In *Marcel v. Placid Oil Co.*, 11 F.3d 563 (5th Cir. 1994) plaintiff successfully precluded the defendant from offering an economist who relied on an outdated, statistically suspect, and untrustworthy report concerning the worklife expectancy of an oilfield worker. The court noted that the defendant did not tender any evidence comparing the

worklife in the oilfield with the national average or with the worklife of any other occupation.

The defendant attempted to introduce specific statistics in the report without establishing how those statistics would apply to the plaintiff to establish that his worklife was shorter than any other worker. The court did note that had the defendant developed the testimony concerning the study in the context of general economic evidence, it might have been a closer case. 11 F. 3d at 567.

E. Carpal Tunnel Syndrome.

1. *Zarecki v. National Railroad Passenger Corp.*, 914 F.Supp. 1566 (N.D. Ill. 1996). Relying on *Daubert*, the district court precluded an orthopedic surgeon from testifying that repetitive stress from key punching was the causative agent responsible for plaintiff=s carpal tunnel syndrome. In reality, the surgeon=s testimony was stricken due to the inadequate affidavit outlining the bases of his opinion. The affidavit was nothing more than conclusions, *e.g.* AIt is my opinion based upon a reasonable degree of medical certainty that the Bilateral Carpal Tunnel Syndrome sustained by [the plaintiff] was caused by her work duties as assigned by the Defendant National Railroad Passenger Corporation.@ 914 F.Supp. at 1570. ADr. Farrell=s affidavit Ais not based on any discernable scientific methodology, . . . [and] can only be characterized as his own subjective beliefs as to the cause of [plaintiff=s] carpal tunnel syndrome.@ 914 F.Supp. at 1574.

2. *Dukes v. Illinois Central Gulf Railroad Co.*, 934 F.Supp. 939, 951 (N.D. Ill. 1996) (affidavit of plaintiff=s expert, a neurosurgeon, which summarily concluded that plaintiff=s carpal tunnel syndrome (CTS) was caused by his work duties was inadmissible due to his failing to conduct independent investigation or research into the causes of CTS

generally and more specifically whether carrying signal lights causes the condition; for failing to articulate a technique or methodology by which his conclusions can be scientifically and objectively tested or subjected to peer review; and because he prepared his conclusions based on plaintiff=s description of his work for litigation purposes.) See also, *Magdaleno v. Burlington Northern Railroad Co.*, 5 F.Supp.2d 899 (D. Colo. 1998).

F. Entomologist.

Miller v. Consolidated Rail Corp., 1999 WL 89668 at *5 (E.D. Pa. 1999).

Plaintiff=s entomologist could testify based on his training, education, and experience as to the environmental factors of the two railroad yards which were suitable for or conducive to the presence of deer ticks. However, the expert could not testify that it was Asubstantially likely@ that plaintiff acquired Lyme Disease from deer ticks at his place of employment due to his lack of medical expertise.

G. Occupational Physician B RADS

Schmaltz v. Norfolk & Western Railway Co., 878 F.Supp. 1119 (N.D. Ill.

1995). Plaintiff asserted that exposure to the herbicides, atrazine and tebuthiuron, caused him to develop Reactive Airway Dysfunction Syndrome (RADS). In an attempt to link the exposure and the disease plaintiff offered the testimony of an occupational physician. Relying solely on the temporal relationship, since there was no support for a causal connection in the literature, the occupational physician opined that the plaintiff=s exposure might have caused his RADS. Finding the physician had no idea as to whether plaintiff was even exposed to the herbicides and in light of the dearth of supporting medical literature, the court found insufficient empirical support for the physician=s causation opinion.

H. Engine Cleaners.

Simpson v. Northeast Illinois Regional commuter Railroad Corp., 957 F.Supp. 136, 137 (N.D. Ill. 1997). Plaintiff suffers from migraine headaches and panic attacks. He was exposed to Low Suds 1971 and R & D 100 Cleaner for approximately two years. None of the doctors he saw told him the chemicals were the cause of his problems. Indeed, they were of the opinion that his health problems were related to stress and psychological disorder. His treating physicians were at least willing to opine that the chemicals at least played a role in plaintiff's condition. The district court not surprisingly excluded the opinions under *Daubert*.

I. Medical Testing.

Hose v. Chicago Northwestern transportation Company, 70 F.3d 968 (8th Cir. 1996). PET scan was scientifically reliable for use in making a diagnosis of manganese encephalopathy. Polysomnogram (a test to assess whether a person has a sleep disorder) was admissible to support that the plaintiff had sleep disorder consistent with an exposure to a toxic substance.

J. *Kumho Tire Co. v. Carmichael*

V. Conclusion.

By reviewing the standard established in *Daubert* as well as the analysis used by the courts in applying that standard to various fact patterns, one can develop a better understanding of what is necessary for the admission of expert testimony. The essential element in developing bases for admission of any expert opinion is support for the testimony from various sources, including medical and scientific literature, other experts including the defendant's experts, government documents, as well as case law.