

In the
United States Court of Appeals
For the Seventh Circuit

No. 13-2102

SHANNON BROWN,

Plaintiff-Appellant,

v.

BURLINGTON NORTHERN SANTA FE
RAILWAY COMPANY,

Defendant-Appellee.

Appeal from the United States District Court for the
Central District of Illinois.

No. 1:09cv01380-JAG — **John A. Gorman**, *Magistrate Judge*.

ARGUED MAY 19, 2014 — DECIDED AUGUST 29, 2014

Before ROVNER, WILLIAMS, and TINDER, *Circuit Judges*.

TINDER, *Circuit Judge*. Shannon Brown appeals the dismissal of his lawsuit against the Burlington Northern Santa Fe Railway Company (“BNSF”), which he filed under the Federal Employers’ Liability Act (“FELA”), 45 U.S.C. § 51 *et seq.* The sole issue he disputes on appeal is the district

court's¹ decision to exclude the testimony of his expert witness, David Fletcher, M.D. We conclude that the district court did not abuse its discretion and therefore affirm its grant of summary judgment.

I. Background

At the time of this appeal, Brown was a 36-year-old man residing in Knoxville, Illinois. He began his employment with BNSF in 1996 as a member of the Maintenance of Way Department. From 2006 to 2009 he progressed through a variety of job duties as a foreman, track inspector, and machine operator. In 2007 a family physician diagnosed Brown with carpal tunnel syndrome in both wrists and cubital tunnel syndrome in his left elbow.² On October 25 of that year,

¹ The parties consented to a referral of this case to a magistrate judge, who excluded Brown's proposed expert testimony and granted summary judgment. For simplicity we will refer to the judge as the district court.

² According to WebMD, "[c]arpal tunnel syndrome occurs when the median nerve is compressed because of swelling of the nerve or tendons or both. ... When this nerve becomes impinged, or pinched, numbness, tingling, and sometimes pain of the affected fingers and hand may occur and radiate into the forearm." At its most severe, the condition may result in "permanent deterioration of muscle tissue and loss of hand function." *Carpal Tunnel Syndrome*, <http://www.webmd.com/pain-management/carpal-tunnel/carpal-tunnel-syndrome> (last visited Aug. 25, 2014). Similarly, "[c]ubital tunnel syndrome ... is caused by increased pressure on the ulnar nerve, which passes close to the skin's surface in the area of the elbow commonly known as the 'funny bone.'" Symptoms of cubital tunnel syndrome include "[p]ain and numbness in the elbow," "[t]ingling, especially in the ring and little fingers," "[w]eakness affecting the ring and little fingers," and "[d]ecreased ability to pinch the thumb and little finger." *Cubital and Radial Tunnel Syndrome*,

Brown allegedly injured his right shoulder after lifting heavy angle bars at work.³ He reported the alleged injury only after increasing pain prompted him to visit an emergency room. His family physician could not detect any injury despite conducting tests, and instead sent Brown to physical therapy. By December 3rd of 2007, Brown reported that his shoulder was pain free, and his doctor cleared him to return to work with no restrictions.

The day following his official return date, however, Brown had surgery on his right wrist to relieve his carpal tunnel syndrome. Surgery on the other wrist followed on January 22, 2008. He returned to work on March 24 without any restrictions. He had surgery on his left elbow in October of 2009 to treat his cubital tunnel syndrome, and he was cleared to return to work on January 4, 2010. Brown's surgeon for both of his wrist surgeries and his elbow surgery informed him that all three procedures were successful and resolved his symptoms. Brown would remain employed at BNSF without medical restriction until September 28, 2011, at which point he no longer worked at the company.

Before returning from his elbow surgery in 2009, Brown sued BNSF under FELA, alleging that the railway negligently caused cumulative trauma to his wrists, elbow, and shoulder. According to Brown, his duties at the railroad re-

<http://www.webmd.com/pain-management/cubital-radial-tunnel-syndrome> (last visited Aug. 25, 2014).

³ Some disagreement persists in the record as to what exactly Brown claims to have been lifting when the alleged injury occurred, but that issue is irrelevant for our purposes.

quired him to use vibrating tools that either caused or aggravated his wrist conditions. He further alleges that, in September of 2009, he was required to work excessive hours without proper equipment while BNSF was short-staffed; he maintains that this exertion triggered or exacerbated the cubital tunnel syndrome in his left elbow, prompting his surgery the next month.

Discovery commenced, and Brown retained Dr. Fletcher to examine him and provide expert medical testimony. Dr. Fletcher's expertise in diagnosing railway work injuries and identifying their cause is unchallenged. He is licensed to practice medicine in Illinois, and is a full-time physician. He graduated from Rush Medical College in Chicago and holds a Master's Degree in Public Health from the University of California, Berkeley. Dr. Fletcher is a Fellow of the American College of Occupational and Environmental Medicine and has been appointed Clinical Assistant Professor at the University of Illinois and Southern Illinois University. In 2012 he was one of two doctors chosen to serve on the Illinois Workers' Compensation Commission. He is also the medical director of SafeWorks, Illinois, a private occupational health clinic. Starting in 1985 and continuing through his 2012 deposition, Dr. Fletcher occasionally served as an independent contractor with two railroad companies, the Norfolk Southern Corporation and the Canadian National Railway Company. In that capacity he treated work-related injuries and performed physicals, tested employees' fitness for duty, and conducted some ergonomic evaluations. He has served as an expert witness in past FELA cases.

Dr. Fletcher eventually submitted four expert reports on Brown's behalf, although the last was excluded as untimely

in a ruling that Brown does not challenge. The first report discussed Brown's medical records and his independent medical evaluation that Dr. Fletcher conducted on August 2, 2011. Dr. Fletcher reported that Brown had no history of smoking, diabetes, or other common health risk factors. He noted that Brown reported a needle-like sensation in the palms of both hands that was minimal and easy to ignore. Brown also told Dr. Fletcher that his shoulder was "97%" better and caused him no pain. Dr. Fletcher inquired as to Brown's employment, and Brown told him that his job required him to lift 100 pounds from the floor and 50 pounds overhead. He further reported that he worked between 12 and 16 hours a day, repeatedly lifting between 35 and 40 pounds and using hydraulic and vibratory tools. He informed Dr. Fletcher that as a foreman he commonly had to repair track, shovel dirt, drive spikes, use sledge hammers, and lift heavy metal bars.

Dr. Fletcher's first report also relayed the results of his physical examination of Brown. The report notes atrophy and loss of muscle strength in his left elbow. Dr. Fletcher conducted a Tinel's test on the elbow, which revealed nerve irritation. An elbow compression test similarly uncovered signs of injury. Dr. Fletcher also indicated impingement of Brown's right shoulder, but his report goes on to contradict that finding by reporting that "impingement signs were negative bilaterally." The report states that an MRI would be necessary to reach a "formal diagnosis" of any shoulder injury, but it notes that Brown could not undergo that test because he had a pacemaker in his chest. Dr. Fletcher recommended an arthroscopic procedure to identify any problems, but no such surgery was performed. Brown has not pointed out any other test confirming an injury to his shoulder. Nev-

ertheless, Dr. Fletcher attributed Brown's wrist, elbow, and shoulder injuries to his work at BNSF.

Dr. Fletcher's second report was an update on Brown's progress, issued on January 3, 2012, after he had examined him a second time. Brown reported pins and needles in his left elbow and numbness in his left hand, and Dr. Fletcher concluded that he required another elbow surgery. He also stated that Brown "had incurred permanent loss" of function and required "[p]ermanent job restrictions." Again Dr. Fletcher attributed these medical problems to Brown's job.

In his third report, dated February 27, 2012, Dr. Fletcher more closely examined the cause of Brown's condition. After summarizing Brown's health concerns, he stated that he suffered from a "cumulative trauma disorder" caused by his work on the railroad. Carpal tunnel syndrome and cubital tunnel syndrome are both examples of cumulative trauma disorder because they result from repeated applications of force over time rather than one discrete event. Dr. Fletcher stated that he came to this conclusion by the process of differential etiology. "[I]n a differential etiology, the doctor rules in all the potential causes of a patient's ailment and then by systematically ruling out causes that would not apply to the patient, the physician arrives at what is the likely cause of the ailment." *Myers v. Ill. Cent. R.R. Co.*, 629 F.3d 644, 644 (7th Cir. 2010).

As we have noted, to conduct his method of differential etiology, Dr. Fletcher's third report states that he employed a "job site analysis," which consists of "traveling to the literal worksite with the patient and reviewing his or her job duties; measuring frequency and force required for various job tasks; videotaping and photographing job task activities for

further analysis”; identifying “variances in the written job description as compared to the actual duties performed; using scientific measuring tools, such as a Chatillon gauge, which constitutes an objective measure of force; assessing push/pull job function factors; and evaluating the level of force exertion required to perform a job task.” Through the job site analysis, Dr. Fletcher could “rule in” Brown’s railroad work as a cause of his injury.

BNSF deposed Dr. Fletcher, and his accounting of his etiological investigation in this case differed considerably from the typical methodology described in his reports. Instead of going to Brown’s work site and making scientific measurements and records, Dr. Fletcher simply photographed Brown holding various work tools at the BNSF rail yard. He testified that the railroad did not allow him to observe Brown or a similarly situated employee perform representative work tasks. (Brown did not, however, move to compel BNSF’s cooperation on this point.) Instead, Dr. Fletcher based his opinion on observations he has made as an independent contractor since 1985. But when pressed for specifics, he recounted occasional memories of railroad work he witnessed ten years ago on a different site from the one Brown worked on. Dr. Fletcher also admitted that he never learned how long Brown would have used certain equipment each day, and he acknowledged that Brown’s work varied over the course of a day and from one day to the next. He also stated that he did not consider how Brown’s responsibilities changed as he progressed at his job to track inspector and then to foreman.

Moreover, Fletcher’s report did not discuss a number of potential alternative causes for Brown’s ailment. During his deposition, Dr. Fletcher stated that he had been aware of

some, but not all, of the relevant information surrounding these potential alternative causes. For example, Brown was a volunteer firefighter. Fletcher testified that he knew this but that he did not know how long Brown had worked as a firefighter. He never observed Brown's volunteer work there or learned his job duties. Brown also had a family history of cumulative trauma disorder, which Dr. Fletcher recognized but discounted. Although the doctor acknowledged that the "higher the [individual's body mass index or "BMI"] the more likely obesity could be an independent risk factor," he dismissed this potential cause because Brown's BMI was "[b]orderline" and he was not "morbidly obese." Dr. Fletcher did know that Brown regularly rode a motorcycle during the relevant time period, but he did not know the frequency or duration of the rides, or the type of motorcycle he owned. He concluded that any effect from the motorcycle would be minor because, he stated, Brown spent considerably more time working than riding. Finally, although Dr. Fletcher reported that Brown had no history of smoking, Brown himself admitted in his deposition that he had quit smoking only two or three years earlier.

The district court excluded Dr. Fletcher's reports and testimony under Federal Rules of Evidence 702 and 703. The court held that Dr. Fletcher's methods were unreliable because he deviated substantially from the recognized scientific practices that he described in his reports. As to Brown's shoulder, the district court doubted whether Brown had even sustained an injury because Dr. Fletcher had conceded that no formal diagnosis was possible without an MRI. More broadly, the district court reasoned that Dr. Fletcher was offering an ergonomic opinion as to the relation between Brown's job duties and his injury, and that such opinions re-

quired a sound job site analysis of the type Dr. Fletcher mentions in his report. But because Dr. Fletcher never actually performed a job site analysis or observed Brown at work, his opinion lacked a reliable, testable basis. Moreover, Dr. Fletcher claimed that he was applying the method of differential etiology to “rule out” other potential causes, but the district court found that he failed to meaningfully consider or investigate several such possible risk factors for Brown’s condition, such as his motorcycle riding, volunteer fire-fighting, obesity, smoking, and family history of cumulative trauma disorders. In other words, Dr. Fletcher had failed both to “rule out” several possible causes and also to properly “rule in” Brown’s job as a cause of his condition. Because Dr. Fletcher did not adhere to his own stated methods for performing a job site analysis or differential etiology, the district court found that he in fact adhered to no reliable method, but instead impermissibly relied on his own subjective experience and untestable assumptions.

Brown’s case for establishing his work conditions as a cause of his injury depended on Dr. Fletcher’s testimony, so the district court dismissed his FELA claim. This appeal followed.

II. Discussion

Congress enacted FELA in the first decade of the twentieth century in response to “the physical dangers of railroad-ing that resulted in the death or maiming of thousands of workers every year.” *Consol. Rail Corp. v. Gottshall*, 512 U.S. 532, 542 (1994). The Act requires a plaintiff to prove all the elements of a negligence claim against his employer, but courts have “liberally construed” the statute “to further FELA’s humanitarian purposes.” *Id.* at 542–43. In particular,

a FELA claim is judged according to “a relaxed standard of causation” whereby a plaintiff must prove only that the employer’s “negligence played any part, even the slightest, in producing the injury or death for which damages are sought.” *Id.* at 543 (quoting *Rogers v. Mo. Pac. R.R. Co.*, 352 U.S. 500, 506 (1957)).

The relaxed causation standard is simple enough to meet in cases involving readily understood injuries, *e.g.*, those that result from being hit by a train. “But when there is no obvious origin to an injury and it has multiple potential etiologies, expert testimony is necessary to establish causation.” *Myers*, 629 F.3d at 643 (citation and quotation marks omitted). In particular, “[f]or most cumulative trauma injuries, courts follow the general principle that a layman could not discern the specific cause and thus they have required expert testimony about causation.” *Id.* Brown contends that he has suffered cumulative trauma injuries to his wrists and elbows, along with a shoulder injury, and he concedes that he was required to provide admissible expert testimony to establish causation for each. We are not so sure about that. Brown allegedly injured his shoulder performing a discrete act of lifting that could be readily understood by a layman. And in *Myers* we noted dicta in the Sixth Circuit case *Hardyman v. Norfolk & Western Railway, Co.*, 243 F.3d 255 (6th Cir. 2001), indicating that “general causation testimony is enough to send the case to a jury for carpal tunnel syndrome.” *Myers*, 629 F.3d at 643. We do not know whether summary judgment will always be appropriate in the absence of expert testimony where the plaintiff has alleged such discrete, easily comprehensible injuries. Nevertheless, Brown chose to pursue a standard cumulative trauma theory and has not argued that his case could survive summary

judgment without expert testimony. Nor does he point to sufficient lay evidence in the record to support a finding of fault for his shoulder injury. Therefore, we agree with the parties that we may reverse the district court's grant of summary judgment only if we also reverse its decision to exclude Dr. Fletcher's testimony.

A district court's decision to exclude expert testimony is governed by Federal Rules of Evidence 702 and 703, as construed by the Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). Rule 702(c) requires that an expert's testimony be "the product of reliable principles and methods." Similarly, Rule 703 requires the expert to rely on "facts or data," as opposed to subjective impressions. *Daubert* laid out four factors by which courts can evaluate the reliability of expert testimony: (1) whether the expert's conclusions are falsifiable; (2) whether the expert's method has been subject to peer review; (3) whether there is a known error rate associated with the technique; and (4) whether the method is generally accepted in the relevant scientific community. 509 U.S. at 593–94.

Dr. Fletcher sought to offer a differential etiology in this case. "Differential diagnosis is an accepted and valid methodology for an expert to render an opinion about the identity of a specific ailment." *Myers*, 629 F.3d at 644. So is differential etiology, which focuses on the cause, not just the identity, of an ailment. *Id.* But an expert still must faithfully apply the method to the facts at hand. A differential etiology, like a differential diagnosis, "satisfies a *Daubert* analysis if the expert uses reliable methods. ... Determining the reliability of an expert's differential diagnosis is a case-by-case determination." *Ervin v. Johnson & Johnson, Inc.*, 492 F.3d 901,

904 (7th Cir. 2007); *see also Myers*, 629 F.3d at 644. The party offering the expert testimony bears the burden of proving its reliability. *Lewis v. CITGO Petroleum Corp.*, 561 F.3d 698, 705 (7th Cir. 2009).

In reviewing the district court's decision to exclude expert testimony, this court "first undertakes a *de novo* review of whether the district court properly followed the framework set forth in *Daubert*" *United States v. Hall*, 165 F.3d 1095, 1101 (7th Cir. 1999). If the court properly understood its role therein, we then review its ultimate decision to exclude expert testimony for an abuse of discretion. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999). This deference is in keeping with the district court's vital "gatekeeping" role in ensuring that only helpful, legitimate expert testimony reaches the jury. *Daubert*, 509 U.S. at 597.

Brown first contends that the district court "exceeded the scope of its gatekeeping function" under *Daubert* by nitpicking Dr. Fletcher's factual observations and gainsaying his conclusions—both of which are properly roles for the jury—rather than simply determining whether he used a reliable method. Appellant's Br. at 36. Second, Brown argues that Dr. Fletcher did properly adhere to his method of differential etiology and that the district court abused its discretion in finding otherwise. We take both arguments in turn.

The district court properly understood the *Daubert* framework. It noted that "[t]he court's role as gatekeeper is strictly limited to an examination of the expert's methodology." *Brown v. Burlington N. Santa Fe Ry. Co.*, No. 09-1380, 2013 WL 1729046 at *8 (C.D. Ill. Apr. 22, 2013). Brown responds that the district court's reasoning belies that acknowledgement. Specifically, the district court faulted Dr.

Fletcher for apparently relying on Brown's recitation of his medical history to conclude that he did not smoke when it appears that he did. The court also noted that Dr. Fletcher's report did not describe Brown's family history of cumulative trauma disorder. Brown's failure to accurately relay his medical history should not have led the court to impugn Dr. Fletcher's methods. "Medical professionals reasonably may be expected to rely on self-reported patient histories." *Walker v. Soo Line R.R. Co.*, 208 F.3d 581, 586 (7th Cir. 2000) (citing *Cooper v. Carl A. Nelson & Co.*, 211 F.3d 1008, 1019–21 (7th Cir. 2000)). Likewise, the district court doubted Brown's self-reporting of his job duties to Dr. Fletcher, in particular his claims that he worked 12-16 hours a day. The court also discounted Dr. Fletcher's diagnosis of Brown's shoulder injury because he was not able to perform an MRI. Finally, the district court accused Dr. Fletcher of misidentifying a track jack as an iron angle bar, which would be a significant error because the two items are quite distinct. Brown argues that the district court's findings on these points amount to improperly quibbling with factual details of the expert's report. After all, even experts make mistakes, and imperfections in their presentations are supposed to be tested by opposing counsel and put before the jury.

Although the district court did observe factual deficiencies in Dr. Fletcher's reports, it clearly stated that it was excluding the doctor's testimony because he failed to follow a reliable method; indeed, he deviated from his own stated description of a job site analysis and of differential etiology in general. Dr. Fletcher entirely failed to personally observe Brown's working conditions, obtain a written work description, or perform scientific tests. He also failed to investigate several possible causes of Brown's health problems. The fac-

tual deficiencies or discrepancies the district court identified are the result of Dr. Fletcher's faulty methods and lack of investigation. The district court used the gaps in Dr. Fletcher's analysis as illustrative examples of the perils inherent in applying subjective experience instead of a proper scientific approach. The district court did not exceed its role under *Daubert*.

Brown's remaining argument is that the district court abused its discretion in finding that Dr. Fletcher failed to apply a reliable method. We have recognized that there is "nothing controversial" about using differential etiology to establish legal cause. *Schultz v. Akzo Nobel Paints, LLC*, 721 F.3d 426, 433 (7th Cir. 2013). However, an expert must do more than just state that she is applying a respected methodology; she must follow through with it. In deciding whether an expert employed a reliable method, the district court has discretion to consider "[w]hether the expert has adequately accounted for obvious alternative explanations." *Id.* at 434 (quoting Fed. R. Evid. 702 (2000) Committee Note). The expert need not exclude all alternatives with certainty, however. *See Gayton v. McCoy*, 593 F.3d 610, 619 (7th Cir. 2010) ("[A]n expert need not testify with complete certainty about the cause of an injury; rather he may testify that one factor could have been a contributing factor to a given outcome.").

The district court did not abuse its discretion in finding that Brown's motorcycle riding and volunteer firefighting were obvious potential alternative causes for his injuries. The causal link Dr. Fletcher drew between Brown's job and his injuries lay in the presence of vibratory and other types of equipment that can harm elbows, wrists, and shoulders

over time. But the handlebars of a running motorcycle obviously vibrate, and firefighters must frequently struggle with heavy equipment. Brown is correct that under FELA he need only prove that BNSF's negligence was a cause, not the sole cause, of his injury. But without performing an investigation, Dr. Fletcher could not rule out either activity as the sole cause of Brown's condition. And although Brown's weight, history of smoking, and family medical history were each not likely the sole cause of his ailments, these risk factors combined with either the volunteer firefighting or motorcycle riding (or both) could have been wholly responsible for Brown's condition. We do not know how likely this possibility is because Dr. Fletcher did not meaningfully consider it.

Brown insists that Dr. Fletcher did consider these obvious alternative causes, but the record shows otherwise. The doctor disregarded Brown's motorcycle riding as a factor because he assumed Brown worked for longer periods than he rode. But as BNSF rightly points out, the proper question is how long he rode the motorcycle as compared to how long he used vibratory or similarly taxing tools at work. And Dr. Fletcher could not possibly answer that question in a systematic, testable fashion because he did not know the duration and frequency of Brown's motorcycle riding. Even worse, he did not know the duration or frequency of Brown's exposure to vibrations at work. He did not have enough information to conclude that one value was higher than the other, or even to doubt that the former overwhelmingly exceeded the latter. Comparing two unknown, potentially wide-ranging variables is not a scientific exercise. There is no known error rate attached to such a calculation, nor is such guesswork widely accepted in the scientific community. See *Daubert*, 509 U.S. at 593–94. Similarly, Dr.

Fletcher did not know what hours Brown worked as a firefighter, or what his responsibilities were. These were not merely factual oversights; they are flatly inconsistent with differential etiology. That method does not establish a cause for an injury directly, through observation or factual reconstruction. Rather, it relies on the process of elimination by ruling out other alternatives. The failure to rule out obvious potential alternative causes is therefore fatal to Dr. Fletcher's testimony.

Dr. Fletcher's failure to consider Brown's motorcycle riding and volunteer firefighting distinguishes this case from *Schultz*, 721 F.3d 426, which Brown cites in support of his argument. In that case, the plaintiff had smoked in the past, but the expert explicitly stated that exposure to benzene was known to pose an even greater risk. This meant, in the expert's opinion, that the benzene was a "substantial factor" in his cancer. *Id.* at 433–34. Here, Dr. Fletcher did not reliably weigh the risks posed by Brown's job-related exertion as compared to his other activities. This case is also quite different from *Hardyman*, in which the expert "took an extensive history of Plaintiff's non-occupational work activities." 243 F.3d at 261 (discussing the plaintiff's bowling, golf, and other recreational activities).

Not only did Dr. Fletcher fail to investigate and systematically rule out two obvious potential causes, but it is not clear that he ruled out any serious alternative. It is true that Brown apparently does not have diabetes, which could be a risk factor. Dr. Fletcher also determined that Brown's weight was not likely not a problem, because his BMI was "[b]orderline." But even this is difficult to square with his observation during his deposition that "[t]he higher the BMI

the more likely that obesity could be an independent risk factor" for carpal tunnel syndrome. He did not explain at all why this positive relationship would exist only for the "morbidly obese." Brown's weight could have made it more likely that his motorcycle riding or volunteer firefighting was solely responsible for his condition. Of course, we can only speculate because Dr. Fletcher did not adequately investigate this possibility.

As the district court correctly observed, Dr. Fletcher's failure to rule out obvious potential causes was only half the problem. He also failed to reliably "rule in" Brown's workplace activity as a potential cause of Brown's condition. Dr. Fletcher failed to consider that Brown's job duties changed considerably as he progressed, beginning in 2006, from maintenance-of-way work to different roles as a foreman, track inspector, and machine operator. More fundamentally, Dr. Fletcher noted that his method required him to conduct a "job site analysis." This involved "traveling to the literal worksite with the patient and reviewing his or her job duties; measuring frequency and force required for various job tasks; videotaping and photographing job task activities for further analysis"; identifying "variances in the written job description as compared to the actual duties performed; using scientific measuring tools, such as a Chatillon gauge, which constitutes an objective measure of force; assessing push/pull job function factors; and evaluating the level of force exertion required to perform a job task." Observing Brown's actual working conditions was important in order to avoid "ruling in" risk factors that were not actually present at his job. The use of videotape and photography to record Dr. Fletcher's observations would have been crucial to ensuring that his conclusions could be objectively tested,

peer reviewed, and reproduced. The same applies to the use of scientific tools that provide recorded measurements and the written job description that could offer an objective comparison with the doctor's observation. Dr. Fletcher also testified that he usually had a professional ergonomist conduct much of this investigation, but he did not use his services in this case. All of these steps are designed so that the expert can rely not on his own subjective experience or bias but on reliable scientific methods. Dr. Fletcher noted that the above safeguards were important in his own report, yet he failed to follow them. This again distinguishes Brown's case from *Hardyman*, where the plaintiff's ergonomics expert "conducted an extensive investigation of Plaintiff's work conditions." 243 F.3d at 263. Without a legitimate investigation, Dr. Fletcher could not reliably ascertain whether Brown's work was even a contributing factor to his injury.

In response, Brown contends that precise measurements of the duration and frequency of his exposure to vibratory and other potentially damaging tools are unnecessary because no precise relationship between the frequency and duration of exposure and a particular cumulative trauma injury is known. Indeed, it likely varies from patient to patient. But because Brown was exposed to multiple sources of continued vibration and other trauma, Dr. Fletcher had to have some reliable basis for opining that Brown's work activities played at least a small role in his injury. Data comparing the relative duration and frequency of exposure could have provided that basis; perhaps there were other ways. But Dr. Fletcher did not pursue any of them. Brown also argues that BNSF's experts also did not perform frequency and duration tests of its equipment either, but pointing out deficiencies in the defendant's expert testimony cannot help Brown, who

bears the burden of proving negligence and demonstrating the reliability of his own expert.

Brown claims that Dr. Fletcher was prevented from conducting the type of job site analysis described in his reports because BNSF would not cooperate by, for example, allowing him to test its tools or providing him with a written job description. But that is a matter that should have been brought to the district court's attention during discovery. A party cannot enter into evidence unhelpful expert testimony on the grounds that the other side made them do it. If Brown felt that BNSF was unreasonably constraining his expert's investigation, he should have raised that issue and then, if unsuccessful, pressed it on appeal.

Nor did Dr. Fletcher follow his own advice in diagnosing Brown's alleged shoulder injury. In his first report he noted that a "formal diagnosis" would not be possible without an MRI. The district court did not abuse its discretion in holding Dr. Fletcher to that representation. And if Dr. Fletcher failed to follow his own stated methods, the court could reasonably conclude that he had failed to follow any reliable method. Brown has not shown that Dr. Fletcher's actual approach, as opposed to what he claimed to have done, was generally accepted in the scientific community. His process could not produce falsifiable results or survive peer review, and it is impossible to put an error rate on his guesswork. *See Daubert*, 509 U.S. at 593–94.

No one disputes that Brown's injuries could have been caused by frequent or long-lasting vibrations, or that his job exposed him to a significant amount of vibration over the years. But if that were sufficient to establish causation, expert testimony would be unnecessary in this case. Any lay-

man can understand that connection. Brown wishes to use Dr. Fletcher's quarter-century of experience in the field to rule out other potential causes. But experience without reliable, testable methodology is not sufficient. *See Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997) (“[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.”). Moreover, Dr. Fletcher's application of his own experience is itself suspect. At his deposition he was forced to rely on his memory of “spen[ding] half an hour, 40 minutes ... a decade ago” at a different rail yard to describe the type of maintenance-of-way work that Brown performed. The vagueness of this testimony is a good illustration of why mere expertise and subjective understanding are not reliable scientific evidence. The district court did not abuse its discretion by concluding that opinions based on this sort of recollection would be no help to the jury.

III. Conclusion

Because the district court did not abuse its discretion in excluding Dr. Fletcher's expert testimony, its grant of summary judgment is AFFIRMED.