

Expert's opinion in case lacks scientific methodology

Today's case involves a product-liability claim for a 7-year-old minisccaffold, which collapsed because of a broken wheel caster stem as the plaintiff climbed on it, causing hand and knee injuries. The question before the court was whether the plaintiff's mechanical engineering expert's opinion on whether the minisccaffold was defective because the brittle fracture in the wheel caster stem was caused by it being overtightened under *Daubert v. Merrell Dow Pharm., Inc.* and Federal Rule of Evidence 702 was admissible. *Bielskis v. Louisville Ladder, Inc.* No. 663 F.3d 887 (7th Cir. 2011)

The plaintiff, Raymond Bielskis, sued the defendant, Louisville Ladder Inc., claiming a minisccaffold produced by the company and purchased in 1997 collapsed while he climbed on it on March 17, 2005, when a caster stem above one of the wheels broke. (Three photos appear at p. 890-91 in the opinion.) Bielskis retained mechanical engineer Neil J. Mizen, who had a bachelor's and

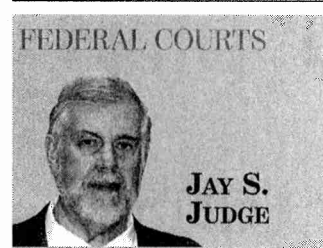
master's in mechanical engineering. Mizen produced a report and gave deposition testimony that said the collapse was caused by a brittle fracture in the wheel caster stem holding the wheel (it had four wheels on the corners) because it was "overtightened."

Louisville moved to bar the testimony of Mizen and then for summary judgment, claiming the conclusion of "overtightening" lacked any scientific methodology under *Daubert* and amounted only to "talking off-the-cuff." The U.S. District Judge Harry D. Leinenweber barred the expert and granted summary judgment for Louisville, finding no proof of a defective product.

The 7th U.S. Circuit Court of Appeals, in an opinion authored by Judge Ilana Diamond Rovner, affirmed, finding the expert's methodology failed the four-pronged *Daubert* test.

Beginning the court's discussion of the *Daubert* criteria, Rovner stated:

"*Daubert* sets forth the following nonexhaustive factors for the district court to consider when



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assessing an expert's methodology: 1) whether the theory has been or is capable of being tested; 2) whether the theory has been subjected to peer review and publication; 3) the theory's known or potential rate of error; and 4) the theory's level of acceptance within the relevant community. The Rule 702 inquiry is 'a flexible one,' and we give the district court wide latitude in performing its gate-

keeping function and determining both how to measure the reliability of expert testimony and whether the testimony itself is reliable."

Noting Mizen's testimony failed this test, the court explained: "The court concluded that Mizen's opinion was not reliable in light of his leap from the accepted premise that a crack without plastic deformation is a brittle fracture to his ultimate conclusion that the caster stem broke because it had been screwed in too tightly. When questioned as to what scientific methodology he used to reach this conclusion, Mizen replied that he had relied on 'basic engineering intelligence' and 'solid engineering principles that any other engineer would use.'"

After Louisville Ladder moved to exclude his testimony, Mizen supplemented his opinion with several articles that he claimed supported his conclusion. At his deposition, he explained that he located the articles by using the Internet search engine Google and

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typing in the phrase "brittle fracture." We think the district court was within its discretion to conclude that Mizen's methodology sounded more like the sort of "[t]alking off-the-cuff" — without data or analysis — that we have repeatedly characterized as insufficient. See, e.g., *Lang v. Kohl's Food Stores, Inc.* 217 F.3d 919, 924 (7th Cir. 2000).

Observing that Mizen did not testing, relied on his naked eye and mistakenly opined the caster stem was 3/8-inch when it was 1/2-inch, the court wrote:

"First, Mizen made no attempt to test his hypothesis. Bielskis suggests that this inquiry is unnecessary because Mizen needed nothing more than his engineering background and experience to conclude that the caster stem col-

lapsed on account of a brittle fracture brought on by overtightening. But that theory is certainly capable of being tested. Mizen reached his conclusion by examining the broken scaffold for approximately an hour with his naked eye. He did not take the time to measure the caster stem; indeed, he assumed in his report that the caster stem was 3/8-inch and only later discovered that it was in fact 1/2-inch. He admitted in his deposition that he had no idea what alloy was used to construct the caster stem and that he had made no effort to quantify its tensile strength or yield strength."

The court considered the testing done by Louisville Ladder indicative of the testing needed, stating:

"For example, Louisville Ladder's expert, Engineering Systems Inc. (ESI), first used digital calipers to measure the height between the HEX mating surface, the caster

insert mating surface, and the corresponding fracture surfaces. Positive and negative replicas were also created of the fracture surfaces so that the fractographic appearance of the surfaces could be examined in detail. ESI then performed stress analysis calculations with the caster installed in two different configurations in order to assess the stresses present at the stud site with different degrees of tightness."

Concluding the expert's testimony failed the *Daubert* test, Rovner said:

"Bielskis argues on appeal that the fact that Louisville Ladder's experts also concluded that the caster stem failed as a result of a brittle fracture further demonstrates that Mizen's methodology was reliable. But as the district court recognized, it was Mizen's further assertion that the caster stem failed from excessive stress as a result of overtightening that was unreliable. Mizen submitted

nothing with his opinion demonstrating that there would be any consensus in the engineering community for such a conclusion. Nor is it possible to assess the known or potential rate of error behind Mizen's methodology because he used no particular methodology to reach his conclusions. And, of course, Mizen's methodology of looking at the failed caster stem with his naked eye could not be subjected to peer review."

Finally, concluding that Mizen's proposed alternative designs were unmeritorious as they lacked testing and scientific methodology, Rovner wrote:

"Then at his deposition he suggested that instead of a threaded stud, the scaffold could have been supported by a 'set screw, a spring, [or] a snap ring.' When asked if those design alternatives had been tested, Mizen stated, 'I don't have to test it.'"

Judgment for Louisville Ladder affirmed.