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No. 04-5517

**UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT**

ONE BEACON INSURANCE CO.,)	
)	
Plaintiff-Appellant,)	
)	
v.)	On Appeal from the United States
)	District Court for the Eastern
BROADCAST DEVELOPMENT GROUP, INC.,)	District of Kentucky
)	
Defendant-Appellee.)	

Before: BOGGS, Chief Judge; BATCHELDER, Circuit Judge; and GADOLA, District Judge.*

PER CURIAM. One Beacon Insurance Company (“One Beacon”) appeals a jury verdict in favor of Broadcast Development Group (“BDG”) on One Beacon’s negligence claim arising from the collapse of a partially erected broadcast tower. One Beacon was the insurer of Ryan Construction, which had sub-contracted the erection of the tower to BDG. On appeal, One Beacon argues that the trial court erred in instructing the jury on spoliation of evidence by Ryan Construction, and in allowing three expert witnesses to testify on behalf of BDG. For the reasons that follow, we affirm the judgment of the district court.

*The Honorable Paul V. Gadola, United States District Judge for the Eastern District of Michigan, sitting by designation.

I

This case arose from the wreckage of approximately 350 feet of a partially constructed broadcast tower, which collapsed on March 4, 2000. The tower was designed by Central Tower (“Central”). Central manufactured the component parts of the tower, which consisted of three-legged steel members, each with a flange welded to the end that enabled the legs to be bolted together. These parts were bolted together on the job site into twenty-foot sections by Ryan Construction, the sister company of Central. Ryan Construction, in turn, hired BDG to erect the tower from the twenty-foot sections. The tower was erected by attaching a guy wire to each leg of the section, pulling the section into place using a hoist, and steadily increasing the tension of the wires before attaching each wire to an anchor head cemented into the ground.

Blame initially fell on BDG, whose employees failed to anchor, even temporarily, one of the guy wires before leaving for the night, leaving the wire secured only by the brake mechanism of the pulling plates used to haul the tower sections into place. Early the following morning, the wire slipped from the pulling plates, causing the tower to whiplash forward, shearing three of the six flange plates from the legs in sections 34 and 35 of the tower, breaking the connection of those sections, and causing several sections of the tower to catapult away. The remainder of the tower then snapped back, which caused additional sections to break away. Marmaduke Lowrey, the supervisor of the BDG crew, and Bobby Miller, an employee of Ryan Construction, inspected the remains of the tower within three hours of the collapse, and concluded, in a report written shortly thereafter (“the Miller Report”), that the overriding cause of the accident was rigging failure, and that it could only have been prevented by the use of “safeties” to secure the wire that slipped.

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Shortly after the collapse, BDG President Joe Werlinger inspected the site, along with a representative of BDG's insurance company, who videotaped the scene of the accident. Eight days later, Werlinger visited the site again, accompanied by a different representative from the insurance company, and an engineer and tower manufacturing company owner named Tom Nudd. Neither Werlinger nor either of the insurance company representatives asked to remove any sections of the tower from the site. Approximately a week after the collapse, BDG was ordered off the job site, and was not allowed to complete the erection of the tower.

In September 2000, the portions of the tower that were buried in the ground as a result of impact after the collapse were left there and covered over, and the remainder of the tower was taken to a scrap yard.

At this point, too late to inspect the wreckage anew, BDG began to suspect that the collapse may have been caused, at least partially, by defective welds holding the flanges to the legs of the tower. Werlinger spoke to a former employee of Central named Ernie Jones, by then employed by one of Central's competitors. Jones told him it was not inevitable that a tower would collapse after a guy wire slippage, and suggested that defective welds may have been part of the problem. It subsequently came to light that Joe Mooney, Central's quality control supervisor, had complained of defective welds during the manufacture of the tower components, and sent several faulty welds back to be redone. Mooney testified later that he was told at the time by Ray Ryan, owner of both Central and Ryan Construction, that there was no problem with the welds, and that Mooney should concentrate on inspecting the outgoing shipments, which had been going out short of parts. Mooney testified that he was caught inspecting the welds after being told not to, and was told by Ryan that

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he would be fired if caught doing so again. It also came to light that Mooney had been sent by Ryan to the site of the collapse in June 2000, before the wreckage was destroyed, and that Mooney tested some of the welds on one of the damaged sections of the tower that was lying on the ground. Mooney found one leg with the flange broken off, and one leg snapped in two. The leg that had snapped in two was sent back to Central and retained until at least April 2001, thirteen months after the collapse. It was then apparently lost or destroyed. Mooney also gave a report to Ryan stating that one of the legs had snapped “at a support pad right where we had problems with undercut.” “Undercut” was one of the problems Mooney had identified in the welds back in 1999. Neither Mooney’s report nor the leg he sent to Central was ever produced during discovery or the trial in this case, although it is unclear from the record whether BDG’s discovery requests required production or disclosure of either item.

In late 2000, after negotiating the sale of Central and Ryan Construction, Ryan submitted a claim to his insurance carrier, One Beacon, which paid him \$325,307.65 in settlement of his claims. One Beacon then filed suit against BDG in June 2002, alleging that BDG negligently caused the collapse of the tower by failing to prevent the guy wire from slipping. BDG filed a counterclaim against Ryan Construction and Central, alleging that they were responsible for the collapse of the tower, due to their negligent design and manufacturing of its components, specifically the welds holding the flanges to the legs.

BDG retained three experts who testified at trial, each over the objections of One Beacon. Richard Roberts, a metallurgist, examined four pieces of the tower, including two pieces he found at the site in 2003. None of the pieces he examined came from the sections that broke and caused

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the collapse. Roberts testified that he measured the welds on two of the four pieces, and found that they were smaller than called for in Central's design plan for the tower, and that they were defectively executed. He also testified that if the welds had been properly executed, the welds would have been stronger than the bolts used to join the sections of the tower, and that the bolts would have broken before the welds gave way after the guy wires slipped.

Roberts testified that the diagram given by Central to the welders was confusing, and could not have enabled the welders to correctly weld the flanges to the legs, in large part because the type of welds called for on the diagram were impossible to make to the required strength given the way the legs were designed. When asked whether the tower was defectively manufactured, Roberts stated that, in his opinion, "the manufacturing procedure was defective," because the design drawings were confusing and inaccurate, and the two welds he examined were even weaker than called for by the design drawings. He conceded that he was not offering an opinion as to the cause of the tower collapse, and also that the actual design of the tower (as opposed to the drawing given to the welders) would have resulted in appropriately strong welds.

Dr. Joseph Vellozzi, a tower design expert, testified that if the tower had been built as designed, the bolts should have failed before the welds, and that the failure of the welds (as attested to in the Miller Report) led him to believe that the tower had not been built as designed. He testified that it was possible that the tower might not have collapsed if the welds had been properly executed, but "equally possible" that it would have collapsed anyway. He stated that it was impossible to know whether the bolts would have snapped if the welds had held, and that he was "merely saying" that the welds were in fact less strong than the bolts.

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Ernie Jones, a licensed structural engineer and former employee of Central, testified that if the tower had been built as designed, the slippage of the guy wires would not have caused the tower to collapse. He testified that the slippage of the guy wires would have resulted in a force of between 60,000 and 100,000 pounds on the welds and bolts holding the tower together. He testified that the bolts had a maximum strength of about 212,000 pounds, and that if the welds had been properly executed, they should have had a maximum strength of between 280,000 and 300,000 pounds. He concluded that because the bolts would not have failed, the cause of the collapse must have been defective welds. He testified that in his opinion the welds were “either drastically undersized or defective or both.” He explained his analysis for the failure of the welds as follows: he first assumed that all of the welds in the tower were undersized to the extent that each weld had approximately thirty-seven percent of its intended strength, or “about 120,00 pounds,” and then “if you reduced [the strength of the welds] another fifty percent or so due to cracks and other imperfections, then you could have been in the sixty to a hundred thousand-pound range.” He conceded that he had not examined the pieces of the tower that actually broke.

The district court, also over One Beacon’s objection, instructed the jury on the spoliation of evidence, and permissible inferences therefrom, as follows:

The legs, flanges, plates and bolts for sections 35 and 36 for 26 and 27 for the Morehead Tower, manufactured and supplied by Central Tower and supplied by Ryan Construction were destroyed during the clean up of the tower collapse. If you believe the destruction of these legs, flanges, plates and bolts was caused by the unjustified or careless actions or inactions of Central Tower and/or Ryan Construction, then you may infer, but are not required to infer, that such evidence, if available now, would have been favorable to Broadcast Development Group and adverse to Central Tower and/or Ryan Construction.

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On March 19, 2004 the jury returned a verdict in favor of One Beacon on its claim against BDG, and found BDG and Central Tower to share the responsibility for the collapse of the tower, BDG having twenty-five percent liability and Central Tower seventy-five percent liability. The jury awarded One Beacon damages against BDG in the amount of \$81,326.00, twenty-five percent of the \$325,307.65 paid by One Beacon to Ryan. The jury also awarded BDG compensatory damages against Central in the amount of \$18,914.62, seventy-five percent of the \$25,219.50 loss the jury found BDG had suffered as a result of the accident, and punitive damages against Central in the amount of \$100,000.00. One Beacon timely appealed.

II

We review a jury instruction to determine whether it was a correct interpretation of the relevant law. *Barnes v. Owens-Corning Fiberglas Corp.*, 201 F.3d 815, 822 (6th Cir. 2000). In this diversity case, the applicable law is that of Kentucky. *See Gafford v. Gen. Elec. Co.*, 997 F.2d 150, 166 (6th Cir. 1993) (stating that state law controls the substance of jury instructions in diversity cases); *see also McDaniel v. Transcender, LLC*, 119 F. App'x 774, 782 (6th Cir. 2005) (“The rules that apply to the spoiling of evidence and the range of appropriate sanctions are defined by state law . . .”). The propriety of jury instructions is a question of law to be reviewed de novo.¹ *Williams v. Paint Valley Local Sch. Dist.*, 400 F.3d 360, 365 (6th Cir. 2005). If the trial court’s interpretation

¹BDG argues that One Beacon did not specifically object to the spoliation instruction, as required by Fed. R. Civ. P. 51, and that we should therefore review the district court’s instruction for plain error. The record makes clear, however, that One Beacon did specifically object to the spoliation instruction, and that the district court recognized that an objection had been raised to that particular instruction.

of the law was erroneous, we must then decide whether the erroneous interpretation was prejudicial. *See Barnes*, 201 F.3d at 822 (“We will not reverse a decision on the basis of an erroneous jury instruction where the error is harmless”).

Under Kentucky law, a missing evidence instruction, such as the one at issue in this case, is appropriate when there exists a genuine question of fact as to whether one party negligently destroyed or lost evidence relevant to an essential element of an opposing party’s case. *See Rogers v. T. J. Samson Comm. Hosp.*, 276 F.3d 228, 232-34 (6th Cir. 2002) (holding that instruction permitting jury to infer that evidence negligently lost by defendants would have been favorable to plaintiff should have encompassed defendant hospital in addition to other defendants).² As we explained in *Welsh v. United States*, 844 F.2d 1239 (6th Cir. 1988), “[d]estruction of potentially relevant evidence obviously occurs along a continuum of fault--ranging from innocence through the degrees of negligence to intentionality. The resulting penalties vary correspondingly.” *Id.* at 1246. “Whether the defendant’s actions may result or must result in an inference that the missing evidence would be unfavorable to the spoliator, or result merely in a burden-shifting presumption, will depend upon a case by case analysis.” *Id.* at 1247. In *Welsh*, we held that the imposition of a rebuttable presumption that missing evidence would favor the non-spoliating party was justified under

²Although the criminal section of the Kentucky Instructions to Juries contains a model jury instruction similar to the one at issue in this case, the civil section does not contain a missing evidence instruction. However, there is no reason that a trial court may not utilize such an instruction in a civil case. In *Monsanto Co. v. Reed*, 950 S.W.2d 811 (Ky. 1997), a civil case, the Kentucky Supreme Court declined to create a tort claim for deliberate spoliation of evidence in civil matters, and stated that “[w]here the issue of destroyed or missing evidence has arisen, we have chosen to remedy the matter through evidentiary rules and ‘missing evidence’ instructions.” *Id.* at 815.

“Kentucky and federal evidentiary principles” when “a plaintiff is unable to prove an essential element of her case due to the negligent loss or destruction of evidence by an opposing party, and the proof would otherwise be sufficient to survive a directed verdict.” *Id.* at 1248, 1249.³ We noted that a rebuttable presumption is a “middle ground” approach appropriate for negligent loss of evidence, because “it neither simply condones the defendant’s negligent spoliation of evidence at the plaintiff’s expense nor imposes an unduly harsh and absolute liability upon a merely negligent party.” *Id.* at 1249.

When a genuine question exists as to whether a party’s loss or destruction of evidence was negligent (or worse), it is appropriate to defer that question to the jury, by instructing jurors that if they find that the spoliation of evidence was at least negligent, they may infer that the missing evidence would favor the non-spoliating party. *Rogers*, 276 F.3d at 232-33; *cf. Nejo v. Tamaroff Buick Honda Isuzu Nissan*, 88 F. App’x 881, 889 (6th Cir. 2004) (noting that an instruction permitting, but not requiring the jury to draw such an inference is a particularly mild sanction for

³We subsequently stated in *Tucker v. General Motors Corp.*, 1991 U.S. App. LEXIS 23184 (6th Cir. Sept. 30, 1991) (unpublished), that “[i]n general, a court may not allow an inference that a party destroyed evidence that is in its control, unless the party did so in bad faith.” *Id.* at *6. *Welsh* makes clear, however, that negligence alone is sufficient to warrant a rebuttable presumption that missing evidence favors the non-spoliator, and, *a fortiori*, an instruction that merely permits the jury to draw such an inference. It is not clear that *Tucker* is in conflict with *Welsh* in this respect, given that the failure to preserve evidence one knows, or should know, to be relevant to potential litigation could be described as acting in “bad faith,” but, to the extent that such a conflict exists, we must adhere to the holding of *Welsh*. See 6 Cir. R. 206(c); *Salmi v. Sec’y of Health & Human Servs.*, 774 F.2d 685, 689 (6th Cir. 1985) (“A panel of this Court cannot overrule the decision of another panel. The prior decision remains controlling authority unless an inconsistent decision of the United States Supreme Court requires modification of the decision or this Court sitting en banc overrules the prior decision.”).

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spoliation). We also made clear in *Rogers* that, in case of an instruction merely permitting the jury to draw an inference adverse to the negligent spoliator, the evidence in question need not have been necessary to prove an essential element of the non-spoliator's claim, but merely relevant. *See Rogers*, 276 F.3d at 233 (stating in sub-heading that missing evidence "would have been relevant to prove an essential element of Rogers's claim"); *id.* at 234 ("the evidence . . . would have been relevant to Rogers's case against the Hospital."). As the Second Circuit has noted,

"relevant" in this context means something more than sufficiently probative to satisfy Rule 401 of the Federal Rules of Evidence. Rather, the party seeking an adverse inference must adduce sufficient evidence from which a reasonable trier of fact could infer that "the destroyed [or unavailable] evidence would have been of the nature alleged by the party affected by its destruction."

Residential Funding Corp. v. DeGeorge Fin. Corp., 306 F.3d 99, 108-09 (2d Cir. 2002) (internal citation omitted). At the same time,

Courts must take care not to "hold[] the prejudiced party to too strict a standard of proof regarding the likely contents of the destroyed [or unavailable] evidence," because doing so "would subvert the . . . purposes of the adverse inference, and would allow parties who have . . . destroyed evidence to profit from that destruction."

Id. at 109 (internal citations omitted). In short, a missing evidence instruction is appropriate when the negligence of one party in destroying or losing evidence has undermined the ability of an opposing party to prove its case.

We agree with the district court that a missing evidence instruction was appropriate in this case. Negligence in this context requires only "notice of an item's possible relevance to litigation," *Welsh*, 844 F.2d at 1246, and a consequent duty not to destroy it, *Rogers*, 276 F.3d at 233. BDG presented evidence that Ryan was aware during the manufacturing of the tower components that

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there were problems with the welds used to join the parts, and that the report prepared by Mooney in the immediate aftermath of the collapse suggested to Ryan that faulty welds may have been a contributing factor in the collapse. BDG also presented evidence that a piece of the tower had been retained by Central or Ryan Construction but either destroyed, lost, or otherwise concealed during discovery, as was the report prepared by Mooney shortly after the tower collapsed. While we express no opinion as to the weight that should have been given this evidence by the jury in this case, we believe that it would, if credited as true, permit a reasonable jury to find that Ryan knew or should have known that the welds might become an issue in future litigation, and that Central or Ryan Construction acted negligently in disposing of the entire wreckage. While it may be true, as One Beacon claims, that Ryan's companies were under no duty to retain the wreckage indefinitely, if the jury believed that Ryan suspected the welds might have caused the collapse, it could reasonably have concluded that he should have ensured that evidence relevant to that particular issue – such as the sections referred to in the contested instruction – was retained.

We also hold that the destruction of the specified parts of the tower would have undermined BDG's efforts to prove its case. As One Beacon argued at trial, the fact that BDG's experts were unable to examine the specific welds that allegedly failed undermined the significance of their testimony. Were it not for the missing evidence instruction, the jury may well have declined to credit the testimony of those experts without considering where the blame for the destruction of the tower wreckage lay. The instruction given by the district court simply ensured that if the jury believed that the fault for destroying the evidence lay at the door of Central or Ryan Construction,

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it was permitted, if it chose, to infer that the missing welds were defective in the way that BDG's experts described.⁴

We do not agree with One Beacon that BDG's access to the job site shortly after the collapse was sufficient to alleviate any possible prejudice to BDG caused by the subsequent destruction of the wreckage. One Beacon cites *Nationwide Mutual Insurance Co. v. Ford Motor Co.*, 174 F.3d 801 (6th Cir. 1998), for the proposition that a spoliation instruction is inappropriate whenever the non-spoliating party had the opportunity to examine the missing evidence before it was destroyed. This is incorrect. In *Nationwide*, we held that the district court erroneously excluded expert testimony as a sanction for spoliation of evidence, in part because Ford, the alleged victim of spoliation, had two months in which to inspect the part that was destroyed. *See id.* at 804. However, the Ohio law applied in that case expressly provided that the exclusion of expert testimony required a showing that the alleged spoliator intentionally destroyed evidence *before the other party had an opportunity to inspect it. Ibid.* As such, the fact that Ford was able to inspect the parts at issue was dispositive in that case. In this case, the jury instruction given by the district court is appropriate when evidence is destroyed that is *potentially relevant to litigation*. The fact that BDG had some limited opportunity to inspect the wreckage is not dispositive, therefore, but must be viewed in the context

⁴One Beacon argues that it was somehow contradictory for the district court to both give the missing evidence instruction and permit BDG's experts to testify on the basis of second-hand evidence, thereby acknowledging – according to One Beacon – that examination of the sections that broke was not needed for BDG to prove its case. We see no such contradiction in the district court's actions. The fact that impact of the testimony of BDG's experts was reduced by their failure to examine the welds first-hand did not render their testimony inadmissible. Nor did the admissibility of their testimony obviate the role of the missing evidence instruction in alleviating any prejudice to BDG caused by the destruction of the evidence.

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of what the parties knew or should have known about the potential relevance of that wreckage in subsequent litigation. If the significance of the welds had been unknown to either party at the time BDG inspected the wreckage, One Beacon would have a stronger argument that the otherwise-innocent destruction of the wreckage could not subsequently become prejudicial simply because BDG realized too late that it should have examined the welds while it had a chance. But if, as the jury could have found, Ryan knew that the welds might become an issue, the destruction of the wreckage before BDG realized this fact could be deemed prejudicial even though BDG was able for a brief period to visit the site.

The district court did not err in giving the missing evidence instruction.

III

We review the district court's decision to admit expert testimony for abuse of discretion. *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 141 (1997); *United States v. Demjanjuk*, 367 F.3d 623, 633 (6th Cir. 2004). The district court has "wide latitude" to determine the admissibility of expert testimony but "its discretion is not unbridled." *Nemir v. Mitsubishi Motors Corp.*, 381 F.3d 540, 555 (6th Cir. 2004) (internal citation omitted).

Rules 702 and 104(a) of the Federal Rules of Evidence govern the admissibility of expert testimony. *Nelson v. Tenn. Gas Pipeline Co.*, 243 F.3d 244, 250 (6th Cir. 2001). Rule 702 states: "[i]f 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,

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experience, training, or education, may testify thereto in the form of an opinion or otherwise”⁵

Rule 104 provides that the admissibility of evidence is determined by the trial court. Pursuant to these rules, the trial court acts as a gatekeeper in determining whether to admit or exclude evidence. *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579, 597 (1993). The relevant inquiry in making this determination is whether the expert’s proposed testimony “both rests on a reliable foundation and is relevant to the task at hand.” *Ibid.* “Pertinent evidence based on scientifically valid principles will satisfy those demands.” *Ibid.*

In determining whether expert testimony is relevant and reliable, the court must assess “whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue.” *Id.* at 592. We have stated that “[t]he *Daubert* Court made it explicit that in determining the scientific validity and thus the ‘evidentiary reliability’ of scientific evidence, ‘the focus, of course, must be solely on principles and methodology, not on the conclusions that they generate.’ Questions about the certainty of the scientific results are matters of weight for the jury.” *United States v. Bonds*, 12 F.3d 540, 563 (6th Cir. 1993) (citing *Daubert*, 509 U.S. at 594-95). “The assessment of the validity and reliability of the conclusions drawn by the expert is a jury question; the judge may only examine whether the principles and methodology are scientifically valid and generally accepted.” *Ibid.*

Richard Roberts. Roberts stated that he did not intend to testify as to the cause of the collapse, but instead testified that the type of welds called for by the design drawings given to the

⁵One Beacon stipulated that each of BDG’s experts were adequately qualified to testify as experts.

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welders was impossible to execute to the required strength, that the actual welds made were therefore not up to the standards called for in the design, and that the strength of the actual welds he examined was approximately fifty-three percent of the strength called for in the design. One Beacon objects that (1) Roberts based his opinions about the welds on too small a sample (two of four welds he had access to); (2) he conceded various points during his testimony, such as the small sample he worked from, that he did not examine parts from the sections of the tower that broke, and that several welds in the tower survived the collapse; and (3) because Roberts did not testify as to the cause of the collapse, and his opinion was not relied on by either of BDG's other experts, his testimony must have been irrelevant except as an impermissible suggestion that defective welds caused the tower to collapse.

None of these objections have merit. Roberts testified that it would have been *impossible* to make welds of the required strength given the type of welds the design drawings instructed the welders to make, which makes the small number and location of the welds he examined irrelevant. Likewise, the fact that some welds did not fail does not undermine his conclusions or methods, given that, as Roberts testified, the forces applied to different sections of the tower during the collapse varied greatly. One Beacon offers no authority for its claim that Roberts's testimony was irrelevant simply because he did not testify to the overall cause of the collapse, and was not relied on by the other experts. Roberts's testimony was relevant because it addressed one of BDG's key allegations, namely that the welds were defective. Roberts explained the manner in which the welds were defective, and why the defect arose. The fact that he testified as to one particular fact, as opposed

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to the ultimate causal issue in the case, is clearly permitted by Rule 702, which allows experts to help the finder of fact “determine a fact in issue.”

Dr. Joseph Vellozzi. Vellozzi testified that if the tower had been built as designed, the bolts should have failed before the welds, and that the failure of the welds led him to believe that the tower had not been built as designed. He testified that it was possible that the tower might not have collapsed if the welds had been properly executed, but conceded that it was “equally possible” that it would have collapsed anyway. One Beacon objects that (1) Vellozzi should not have been permitted to testify because he did not opine that it was probable that defective welds were responsible for the collapse of the tower; and (2) his testimony that the welds were weaker than the bolts was contradicted by evidence that some of the welds did not fail, while some of the bolts snapped.

One Beacon is correct that Vellozzi did not testify that defective welds were a cause of the tower’s collapse. He said at one point during the *Daubert* hearing that when he had earlier stated in a deposition that it was merely possible that welds had contributed to the collapse, he had meant by “possible” that it was “likely” that they had done so, because it was “unlikely” that the bolts would have snapped under the pressures resulting from the guy wire slippage. However, he also stated during that hearing that there was no way of knowing whether the bolts would have failed, and that any statement he could make about that eventuality was “pure conjecture.” At trial, Vellozzi reiterated that it was “equally as possible” that the tower would have collapsed due to bolt failure even if the welds had held fast. Obviously, if the tower would have collapsed anyway,

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regardless of the condition of the welds, then defective welds could not be said to be a cause of the collapse.

Again, however, One Beacon offers no explanation for its claim that Vellozzi should not have been permitted to testify simply because he did not opine as to the ultimate cause of the collapse. It is true, as One Beacon asserts, that BDG was required under Kentucky law to prove that the defective welds were at least a probable cause of the collapse, *see Midwestern V. W. Corp. v. Ringley*, 503 S.W.2d 745, 747-48 (Ky. 1973), but there is no corresponding requirement that the testimony of every expert witness establish that particular element of the case. The fact that Vellozzi did not testify about the probable cause of the collapse goes only to the significance that should have been attributed to his testimony.

The fact that Vellozzi's testimony is, in One Beacon's opinion, contradicted by other evidence in the record likewise affects the weight that should have been given to his testimony by the jury, not its admissibility. *See Bonds*, 12 F.3d at 563 ("criticisms about the specific application of the procedure used or questions about the accuracy of the test results do not render the scientific theory and methodology invalid or destroy their general acceptance. These questions go to the weight of the evidence, not the admissibility.").

Ernie Jones. Jones, alone among the three experts, did testify as to the cause of the collapse. He testified that if the tower had been built as designed, the slippage of the guy wires would not have caused the tower to collapse, and that the defective welds were therefore a cause of the collapse. The factual bases for this conclusion were (1) that the slippage would have resulted in a maximum force of approximately 100,000 pounds being applied to the sections of the tower that

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broke; and (2) that the bolts, which had a strength of 212,000 pounds, would not have failed under this pressure. He therefore concluded that the cause of the collapse was defective welds, and that the collapse would not have happened were it not for those defects. He explained how the welds could have failed if they had had approximately thirty-seven percent of their intended strength, as a result of being undersized, and lost an additional fifty percent of their strength as a result of cracks and other imperfections.

One Beacon objects to this testimony on the grounds that none of the assumptions made by Jones had any basis in fact, but were simply impermissible “guesstimates.” This objection is unpersuasive. First, Jones’s ultimate conclusion that the tower would not have fallen were it not for the defective welds was based on only one assumption: that the guy wire slippage would have resulted in a maximum of 100,000 pounds of pressure. Jones explained during the *Daubert* hearing that as the wire slipped through the pulling plate, the force pulling the wire would gradually decrease to the point at which the brakes would be able to hold the wire. He explained that he calculated the maximum amount of pressure on the tower sections by determining the point at which the wire would have held. One Beacon argues that Jones never examined the actual pulling plate, and that other evidence was presented that all of the wire slipped out of the pulling plate. But, like most of One Beacon’s arguments, these are arguments about the weight that should be attributed to Jones’s testimony, not about the scientific methodology on which his conclusions were based.

Second, although One Beacon was able to elicit from Jones the admission that his assumptions about the actual strength of the welds were “hypothetical,” these admissions did not form the basis for his conclusion about the cause of the collapse. Jones based that conclusion on the

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strength of the bolts, which no one disputes. He then tried to explain how defects in the welds could have led to sufficient weakness that they would have failed. In effect, he argued: “By exclusion, the welds must have been the cause. And here is a way in which it is possible that they were the cause.” He did not assume that the welds did have a certain strength, but explained that if they had a certain strength, they would have collapsed when the guy wires slipped. Furthermore, although genuine “guesstimates” arguably may not form the basis for scientific opinions, *see, e.g., Coffey v. Dowley Mfg.*, 89 F. App’x 927, 931 (6th Cir. 2003) (“The lack of grounds for these estimates, especially when viewed in light of Wilson’s complete failure to test his predictions, casts doubt on his results.”), One Beacon has not demonstrated that the percentages offered by Jones were based only on guesswork. Although Jones admitted that they were assumptions, counsel for One Beacon did not probe the basis for those assumptions. It is the fault of One Beacon, not Jones, that the jury never heard Jones’s reasons for plugging those particular numbers into his computer model, or the possible defects in those reasons.

In sum, although One Beacon raises some valid questions about the persuasiveness of BDG’s experts, and the weight that should have been given their testimony by the jury, such questions do not suffice to establish that the district court abused its discretion by allowing those experts to testify in the first place.

IV

For the reasons discussed above, we AFFIRM the judgment of the district court.