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Lee Larsen and Amy Larsen, husband and wife, and Plattsmouth Chiropractic Center, Inc., a Nebraska corporation, appellants, v. 401 Main Street, Inc., a Nebraska corporation, doing business as Quart House Pub, and H. & C., Inc., a Nebraska corporation, appellees. N.W.2d

Filed March 8, 2019. No. S-18-168.

- Trial: Expert Witnesses: Appeal and Error. An appellate court reviews de novo whether the trial court applied the correct legal standards for admitting an expert's testimony.
- 2. ____: ____: An appellate court reviews for abuse of discretion how the trial court applied the appropriate standards in deciding whether to admit or exclude an expert's testimony.
- 3. Summary Judgment: Appeal and Error. An appellate court will affirm a lower court's grant of summary judgment if the pleadings and admitted evidence show that there is no genuine issue as to any material facts or as to the ultimate inferences that may be drawn from those facts and that the moving party is entitled to judgment as a matter of law.
- 4. _____. In reviewing a summary judgment, an appellate court views the evidence in the light most favorable to the party against whom the judgment was granted and gives that party the benefit of all reasonable inferences deducible from the evidence.
- 5. Courts: Expert Witnesses. Under the *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Schafersman v. Agland Coop*, 262 Neb. 215, 631 N.W.2d 862 (2001), framework, the trial court acts as a gatekeeper to ensure the evidentiary relevance and reliability of an expert's opinion.
- Trial: Expert Witnesses. Under the framework established by *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Schafersman v. Agland Coop*, 262 Neb. 215, 631 N.W.2d 862 (2001), if an expert's opinion involves scientific or

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specialized knowledge, a trial court must determine whether the reasoning or methodology underlying the testimony is valid (reliable). It must also determine whether that reasoning or methodology can be properly applied to the facts in issue.

Appeal from the District Court for Cass County: MICHAEL A. SMITH, Judge. Affirmed.

Thomas A. Grennan, and Adam J. Wachal, of Gross & Welch, P.C., L.L.O., for appellants.

Robert D. Mullin, Jr., of McGrath, North, Mullin & Kratz, P.C., L.L.O., for appellees.

HEAVICAN, C.J., MILLER-LERMAN, CASSEL, STACY, FUNKE, PAPIK, and FREUDENBERG, JJ.

PAPIK, J.

A fire broke out in the basement of the Quart House Pub, a bar in Plattsmouth, Nebraska. The fire spread and damaged nearby real and personal property belonging to Lee Larsen and Amy Larsen and Plattsmouth Chiropractic Center, Inc. (collectively Plattsmouth Chiropractic). Plattsmouth Chiropractic sued the entities that owned the bar and its premises (collectively Quart House), alleging that equipment located in the basement of the bar had been negligently maintained. The district court did not allow testimony from Plattsmouth Chiropractic's expert on the cause of the fire and sustained Quart House's motion for summary judgment. Plattsmouth Chiropractic now appeals those rulings.

We find that the district court did not abuse its discretion in striking the testimony of Plattsmouth Chiropractic's expert as to the cause of the fire. And without that testimony, Plattsmouth Chiropractic could not present evidence that would allow a finder of fact to reasonably conclude that Quart House's negligence caused the fire and resulting damage. For this reason, summary judgment was proper. Finding no error, we affirm.

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BACKGROUND

Pleadings, Motions to Strike, and Motion for Summary Judgment.

On January 2, 2014, a fire broke out in the basement of the Quart House Pub. The fire spread to Plattsmouth Chiropractic's neighboring office, resulting in property damage. Plattsmouth Chiropractic sued Quart House, alleging negligent maintenance of the property. More specifically, it claimed that Quart House failed to adequately service and maintain the mechanical equipment in the basement, including but not limited to the boiler and water heater. Plattsmouth Chiropractic alleged that this failure proximately caused damages to its property. Quart House's answer denied the allegations in the petition pertaining to the origin and cause of the fire.

Plattsmouth Chiropractic designated Duane Wolf as an expert witness concerning the origin and cause of the fire. Quart House moved to strike and exclude Wolf's testimony. Quart House asserted that Wolf's testimony did not provide an admissible causation opinion, was based solely on unreliable assumptions and/or methodology, and failed to meet the requirements of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Schafersman v. Agland Coop*, 262 Neb. 215, 631 N.W.2d 862 (2001). Plattsmouth Chiropractic filed its own motion to strike and exclude the opinion testimony of Quart House's expert.

Quart House also moved for summary judgment. The parties subsequently addressed the motions to exclude expert testimony and the motion for summary judgment at the same hearing.

Hearing on Motions to Strike and for Summary Judgment.

At the hearing, the district court received evidence that on the date of the fire, the bartender on the main floor observed smoke emanating from some cabinets. The bartender called the 911 emergency dispatch service and left the building. Within minutes, volunteer fire department personnel arrived and observed flames in the cabinets, apparently coming from the basement. Despite the efforts of the volunteer firefighters and firefighters from other area fire departments, the fire eventually overtook the building. Due to the unsafe conditions that resulted from extensive damage, fire investigators were not allowed to inspect the scene and the building was demolished.

Both parties agree that the fire originated in the basement of the bar. The basement housed a walk-in cooler, several air compressors used for coolers, an old natural gas boiler, and a water heater. The parties presented evidence concerning the condition, inspection, and maintenance of the boiler, which was at least 50 years old. From approximately 1980 to 2010, the boiler was inspected annually by service professionals, who performed maintenance as needed. In the 3 to 4 years prior to the fire, however, no maintenance or inspection of the boiler had occurred. Neither the cooler nor the water heater ever received regular inspections.

Plattsmouth Chiropractic presented the opinions and testimony of Wolf concerning the origin and cause of the fire. Wolf, a mechanical engineer with a background in fire and explosion investigation, based his opinion upon a reasonable degree of "engineering certainty" after reviewing 27 documents related to the fire at the bar. Wolf admitted in his deposition that he was unable to determine a "root cause" of the fire, but testified that it was his belief that the fire originated "in the vicinity of the boiler." Wolf believed the fire most likely originated in the boiler, but he could not eliminate the possibility that the fire started in the nearby water heater. Additionally, Wolf acknowledged a possibility that the fire originated in one of several compressors. When Wolf was asked if he was able to rule out electrical wiring as the cause of the fire, he responded that the building's electrical service was "outside my area of expertise."

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Wolf believed that the fire originated from a failure of one of the items of mechanical equipment in the area of the boiler. Wolf opined that, because the fire most likely originated due to the failure of mechanical equipment in the basement, the fire most likely would not have occurred if the mechanical equipment "had been regularly serviced and replaced as needed."

Wolf was critical of Quart House's maintenance of the boiler. He stated that boilers require annual maintenance by qualified service technicians. Wolf testified that because the boiler lacked certain modern safety features, more monitoring and maintenance were required, but he did not specify what those measures entailed. In opposition to the opinions expressed by Wolf, Quart House presented evidence that yearly inspections were not warranted for such a boiler unless problems developed and that the bar's owner had not observed any problems since leasing the property in 2010.

While Wolf testified to his beliefs that the fire originated in the vicinity of the boiler and that the fire most likely originated in the boiler itself, he admitted that he could not with reasonable certainty identify a specific way in which the boiler caused the fire. He did testify that the boiler lacked a "low water cutoff" and that the absence of this feature posed the risk of a "dry fire." Even so, he could not offer an opinion that the fire was caused by a dry fire. He testified that if he could have inspected the boiler, he would have looked for evidence of a dry fire. He also conceded that a dry fire could result from a progressive loss of water or a sudden one, the latter of which could not have been prevented by an inspection the month before the fire.

As for the water heater, Wolf testified that he did not know the maintenance requirements for that piece of equipment. When asked to assume the fire started in the water heater, Wolf could not identify the most likely failure mode of the water heater.

Wolf conceded that his report was not consistent with the National Fire Protection Association's publication No. 921

(NFPA 921), which requires ruling out other possible causes of a fire before adopting a particular hypothesis, and he testified that a postfire forensic inspection was typically required to rule out possible causes of a fire. Wolf testified that his analysis did not determine the root cause of the fire, because the information available limited his investigation.

Quart House retained Kenneth Ward, a fire investigator, as an expert in the area of fire origin and cause. In Ward's opinion, because no fire investigators or experts were allowed inside the building before it was demolished, no adequate scientific or professional basis existed for any fire investigator or expert to render an opinion as to the cause or origin of the fire.

According to Ward, NFPA 921 was the generally accepted guideline for proper scientific methodology in "origin and cause" fire investigations. He stated that Wolf's methodology did not comply with NFPA 921 methodology. Ward explained that NFPA 921 does not allow an investigator to determine the cause of a fire without first pinpointing the origin of the fire, and in this instance, Ward named 26 possibilities that could not be eliminated. Furthermore, Ward testified that Wolf's opinion that the fire originated in a particular part of the basement was not based upon acceptable scientific methodology, because it was based on observations rather than interpretation of burn patterns and area mapping procedures. Ward was not aware of guidelines or standards for fire investigation that would support Wolf's methodology.

District Court's Rulings.

The district court overruled the motion to strike Ward's testimony and sustained the motion to strike Wolf's testimony. The district court reasoned that although Wolf was well qualified as an expert in mechanical engineering, his testimony regarding causation did not meet the *Daubert/Schafersman* threshold, because the methodology could not be properly applied to the facts at issue. See *Daubert v. Merrell Dow*

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Pharmaceuticals, Inc., 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Schafersman v. Agland Coop*, 262 Neb. 215, 631 N.W.2d 862 (2001). The district court pointed to the fact that Wolf could not offer an opinion as to the cause of the fire. The district court emphasized that, at best, Wolf could testify only that the cause of the fire was consistent with boiler failure, but he could not testify that a failure of the boiler caused the fire. The district court also noted that Wolf could not determine whether the boiler ignited due to a progressive loss of water or a sudden one and that, by Wolf's own admission, a recent inspection would not have prevented a sudden loss of water in the boiler. Given these concessions by Wolf, the district court stated that it was mere speculation that the fire could have been prevented by regular inspections and maintenance of the mechanical equipment.

The district court also sustained Quart House's motion for summary judgment. It found that Plattsmouth Chiropractic could not show that, but for the alleged failure to maintain and inspect the boiler, the fire and resulting damages would not have occurred. According to the court, there was a gap between the alleged acts of negligence and the cause of the fire. The district court reiterated that the evidence did not support a reasonable inference as to the cause of the fire, only impermissible speculation.

Plattsmouth Chiropractic now challenges these rulings on appeal.

ASSIGNMENTS OF ERROR

Plattsmouth Chiropractic assigns, condensed and restated, that the district court erred in (1) sustaining the motion to strike the testimony of its expert and (2) granting summary judgment.

STANDARD OF REVIEW

[1,2] We review de novo whether the trial court applied the correct legal standards for admitting an expert's testimony. *Roskop Dairy v. GEA Farm Tech.*, 292 Neb. 148, 871 N.W.2d

776 (2015). We review for abuse of discretion how the trial court applied the appropriate standards in deciding whether to admit or exclude an expert's testimony. *Id*.

[3,4] An appellate court will affirm a lower court's grant of summary judgment if the pleadings and admitted evidence show that there is no genuine issue as to any material facts or as to the ultimate inferences that may be drawn from those facts and that the moving party is entitled to judgment as a matter of law. *Sparks v. M&D Trucking*, 301 Neb. 977, 921 N.W.2d 110 (2018). In reviewing a summary judgment, an appellate court views the evidence in the light most favorable to the party against whom the judgment was granted and gives that party the benefit of all reasonable inferences deducible from the evidence. *Id*.

ANALYSIS

Exclusion of Wolf's Testimony.

We first address the contention that the district court erred in excluding the testimony of Plattsmouth Chiropractic's expert, Wolf.

[5,6] The Nebraska Evidence Rules provide: "If 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, experience, training, or education, may testify thereto in the form of an opinion or otherwise." Neb. Evid. R. 702, Neb. Rev. Stat. § 27-702 (Reissue 2016). Under the Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and Schafersman v. Agland Coop, 262 Neb. 215, 631 N.W.2d 862 (2001), framework, the trial court acts as a gatekeeper to ensure the evidentiary relevance and reliability of an expert's opinion. Hemsley v. Langdon, 299 Neb. 464, 909 N.W.2d 59 (2018). Therefore, if an expert's opinion involves scientific or specialized knowledge, a trial court must determine whether the reasoning or methodology underlying the testimony is valid (reliable). Freeman v. Hoffman-La Roche,

Inc., 300 Neb. 47, 911 N.W.2d 591 (2018). It must also determine whether that reasoning or methodology can be properly applied to the facts in issue. *Id.*

In this case, the district court did not permit Wolf to testify to his conclusion that the fire and resulting damages were caused by negligent maintenance of mechanical equipment on the part of Quart House. It found that Wolf could reach that conclusion only by engaging in speculation. We have recognized that an expert's opinion cannot be based on "'unsupported speculation.'" See *King v. Burlington Northern Sante Fe Ry. Co.*, 277 Neb. 203, 227, 762 N.W.2d 24, 43 (2009). Here, we find that the district court did not abuse its discretion in excluding Wolf's causation testimony on this basis.

While Wolf expressed opinions as to the general vicinity where the fire originated and that the fire was caused by a mechanical issue, he did not have an opinion about what that mechanical issue was. In fact, he could not even form an opinion as to the specific piece of equipment in which a mechanical failure occurred. Wolf did testify that he believed the fire most likely originated in the boiler, but he could not say that a particular condition in the boiler caused the fire. He mentioned one scenario involving the boiler-a dry fire caused by a low water level—as a possible cause, but he could not testify that scenario was actually the cause of the fire, because he did not have the opportunity to inspect the boiler. And, in any event, he admitted that even if the fire was caused by a dry fire in the boiler, that condition could have developed suddenly; in which case, by Wolf's own admission, periodic inspections would not have prevented the fire.

If Wolf had opined that the fire was caused by a particular mechanical failure, we understand how he might have been able to conclude that proper inspections and maintenance would have prevented that failure and thus prevented the fire. But, as we have explained, Wolf did not have an opinion as to the specific cause of the fire. And, as the "dry fire" scenario raised by Wolf illustrates, the fire might have been caused by some condition that would have arisen even if Quart House had performed all the inspections and maintenance Wolf claims it should have. In the absence of an explanation from Wolf as to how he could conclude that proper inspections and maintenance would have prevented the fire without forming an opinion as to its specific cause, we do not believe the district court abused its discretion by finding that Wolf's opinion was based on unsupported speculation.

Summary Judgment.

Plattsmouth Chiropractic also argues that the district court erred in granting summary judgment in favor of Quart House. Plattsmouth Chiropractic contends that there is a genuine issue of material fact as to the cause of the fire and maintains that this is the case even if Wolf's causation testimony is excluded.

As we stated above, and as we have often said, an appellate court will affirm a lower court's grant of summary judgment if the pleadings and admitted evidence show that there is no genuine issue as to any material facts or as to the ultimate inferences that may be drawn from those facts and that the moving party is entitled to judgment as a matter of law. Sparks v. M&D Trucking, 301 Neb. 977, 921 N.W.2d 110 (2018). Here, as in any negligence action, Plattsmouth Chiropractic was required to adduce evidence showing that there was a negligent act or omission by Quart House and that such act or omission was the proximate cause of its injury or was a cause which proximately contributed to it. See Stones v. Sears, Roebuck & Co., 251 Neb. 560, 558 N.W.2d 540 (1997). But without Wolf's expert opinion as to causation, only Ward's opinion remained, and he unequivocally stated that the condition of the site precluded an adequate scientific basis for fire experts to render an opinion as to the cause or origin of the fire. Thus, no admissible expert opinion established the key element of causation.

Plattsmouth Chiropractic would have us conclude that summary judgment was improper even without an expert opinion

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that negligence on the part of Quart House proximately caused the fire. Plattsmouth Chiropractic points to evidence that on the night of the fire, smoke first emerged from the area above the boiler and water heater. It also points to testimony from the bartender that it was cold inside the bar on the night of the fire and suggests the cold temperature is consistent with a failure of the boiler. Plattsmouth Chiropractic argues this is sufficient circumstantial evidence to create a genuine issue of fact as to the cause of the fire.

avoid summary judgment, however, То Plattsmouth Chiropractic had to adduce evidence from which a finder of fact could conclude, without engaging in guess, speculation, conjecture, or choice of possibilities, that a negligent failure to adequately maintain equipment caused the fire and resulting damage. See Swoboda v. Mercer Mgmt. Co., 251 Neb. 347, 557 N.W.2d 629 (1997). The evidence summarized above suggests, at most, that the fire originated near or in the boiler. It does not constitute a basis for the finder of fact to conclude that negligent maintenance on the part of Quart House caused the fire. Since the record did not contain evidence that would allow a finder of fact to find that negligent maintenance caused the fire, without engaging in guess, speculation, conjecture, or a choice of possibilities, we find that the district court did not err in granting summary judgment.

CONCLUSION

For the foregoing reasons, we affirm the order of the district court that excluded Wolf as an expert witness and granted summary judgment in favor of Quart House.

Affirmed.