

IN THE COURT OF APPEALS OF IOWA

No. 24-0674
Filed May 7, 2025

DENISE D. FARLEY,
Plaintiff-Appellant,

vs.

ERIC SCHULTZ and JEANA SCHULTZ,
Defendants-Appellees.

Appeal from the Iowa District Court for Polk County, Scott Rosenberg,
Judge.

Plaintiff appeals the denial of her motion for new trial involving the
inadmissibility of an expert witness. **AFFIRMED.**

Frederick W. James and Blake Gibney of RSH Legal, P.C., Des Moines, for
appellant.

Stefanie J. Thomas-Nichols of Law Offices of John M. Guthrie, Des Moines,
for appellees.

Considered without oral argument by Greer, P.J., and Langholz and Sandy,
JJ.

GREER, Presiding Judge.

Not all cases require experts, especially where a jury can understand the facts. Here, Denise Farley slipped and fell on ice at Eric and Jeana Schultz's property. After Farley instituted a lawsuit, the district court excluded the testimony of Farley's expert witness, a mechanical engineer. The jury returned a verdict finding her to be fifty-one percent at fault, requiring an order for judgment in the Schultzes' favor. Farley moved for a new trial asserting the district court abused its discretion by excluding her expert. The district court agreed with the Schultzes—the expert's opinions were either not proper expert testimony or not properly disclosed—and denied the motion for new trial.

On our review of the denial of the motion for new trial, the opinions solicited through Farley's expert did not go to subjects that required any established expertise, thus, the court did not abuse its discretion in making its evidentiary ruling, we affirm the jury's verdict.

I. Factual and Procedural Background.

On January 5, 2021, Farley slipped and fell on ice that accumulated on the Schultzes' sidewalk. The fall was captured on the Schultzes' home security camera system. As a part of her legal claims against the Schultzes, she alleged that the Schultzes were negligent in: (1) allowing ice to accumulate on the sidewalk in front of their home; (2) failing to maintain their premises in a safe condition; (3) failing to treat their sidewalk when ice was present; (4) failing to re-treat their sidewalk when ice was present; and (5) failing to warn pedestrians of the hazardous conditions existing at the time, along with any other acts or omissions that might become known in discovery. The Schultzes denied the allegations and

asserted several affirmative defenses, including a contention that Farley's fault should be compared to the fault of other parties, if any.

The parties designated expert witnesses; Farley listed Duane Wolf as an expert in mechanical engineering who would testify "regarding the fall, the West Des Moines, Iowa municipal code, [the Schultzes'] non-compliance with the Code and actions [the Schultzes] could have taken to make their property safe." The Schultzes designated Dan Hicks, a member of the American Meteorological Society to testify about the weather conditions and the Schultzes' compliance with "certain West Des Moines city ordinances." Wolf provided a written report that listed what he had reviewed to form his opinions. He also addressed the topography of the area, showing that the Schultzes' lot sloped from the west to the east such that any snow accumulated on the west side of the driveway would melt and flow "across the sidewalk and apron portion of the driveway en route to the street." Also included in the report was Wolf's research of weather data for the days surrounding the fall, his review of the West Des Moines applicable ordinances and four opinions, set out as follows:

(1) The source of the ice which initiated the slip and fall which resulted in the injuries suffered by [Farley] was most likely water from melted snow along the west side of the driveway which thawed, flowed across the sidewalk and then froze again following sunset as temperatures fell in the late afternoon and evening hours on January 5, 2021.

(2) Based upon the topography of the area in front of [the Schultzes' property], moving snow from the driveway to an area east of the driveway and south of the sidewalk (between the sidewalk and street) would help to minimize the potential for snow to melt, flow across the sidewalk and freeze again in the area [where Farley fell].

(3) According to the requirements of [West Des Moines], property owners are required to remove or maintain snow and ice on their sidewalks within a reasonable time from when they accumulated and this time period is not to exceed 24 hours. . . .

Because [the Schultzes] were home throughout the day, they would have had adequate time to apply . . . ice melt, sand or cinders to the sidewalk area prior to the development of ice on the sidewalk and prior to [Farley's fall].^[1]

(4) If some form of ice maintenance had been performed on the sidewalk area prior to [Farley's fall], the potential for the subject incident and her subsequent injuries would have been significantly reduced.

Prior to trial, the Schultzes moved to exclude the opinions offered by Wolf.

The district court reserved ruling until the pretrial motions were heard, but the case was continued and no one returned to the question until almost a year later, when trial again was on the horizon. By this time, the Schultzes had deposed Wolf, and in January 2024, they renewed their motion to exclude his testimony with details from the March 2023 deposition. Neither party amended or supplemented their expert disclosures. At the pretrial hearing, the court orally sustained the motion to exclude Wolf's expert testimony in full.

During the trial, Farley presented an offer of proof related to Wolf's testimony. In that offer, Wolf set out the opinions he would testify to at trial, which summarized those listed in his written report but also disclosed other opinions related to the subjects of thermodynamics and heat transfer. Following that offer of proof, the district court confirmed its earlier ruling, excluding the testimony of Wolf. After the jury returned its verdict finding Farley to be fifty-one percent at fault, thus allowing no recovery, Farley moved for a new trial. She asserted that the exclusion of Wolf's testimony was an abuse of discretion and prejudiced her. After the motion for new trial was denied, the court filed a written order noting that the

¹ In a ruling addressing the Schultzes' motion in limine, the court excluded any testimony related to the West Des Moines ordinances imposing civil liability on property owners.

disclosed opinions did not aid the jury and because Wolf made no specific calculations and make findings duplicating the weather conditions in testing in the earlier disclosures, the general additional testimony involving thermodynamics or heat transfer were later opinions not disclosed.

Farley appeals the denial of her motion for new trial.

II. Scope and Standard of Review.

The standard of review over a ruling on a motion for new trial depends on the grounds for new trial asserted in the motion and ruled upon by the district court. *Hansen v. Cent. Iowa Hosp. Corp.*, 686 N.W.2d 476, 480 (Iowa 2004). “If the motion and the ruling are based on a discretionary ground, we review the ruling for abuse of discretion.” *Id.* Such is the case here, when we review for abuse of discretion over whether a district court properly excluded expert witness testimony. *See Eisenhauer ex rel. T.D. v. Henry Cnty. Health Ctr.*, 935 N.W.2d 1, 9 (Iowa 2019). “An abuse of discretion occurs when the court exercises its discretion on grounds or for reasons clearly untenable or to an extent clearly unreasonable.” *Graber v. City of Ankeny*, 616 N.W.2d 633, 638 (Iowa 2000) (cleaned up). “Grounds are untenable when they are unsupported by substantial evidence or based on an erroneous application of law.” *Haskenhoff. v. Homeland Energy Sols., LLC*, 897 N.W.2d 553, 570 (Iowa 2017). Even if a trial court has abused its discretion, we will only reverse if we are also “convinced that the error materially affected [Farley’s] substantial rights.” *Fry v. Blauvelt*, 818 N.W.2d 123, 130 (Iowa 2012); see Iowa R. Civ. P. 1.1004(1) (allowing a new trial if “an abuse of discretion . . . prevented the movant from having a fair trial”).

III. Discussion.

To start with, Iowa courts are “committed to a liberal view on the admissibility of expert testimony.” See *Ranes v. Adams Lab’ys, Inc.*, 778 N.W.2d 677, 685 (Iowa 2010). And “[a]n opinion is not objectionable just because it embraces an ultimate issue.” *Haskenhoff*, 897 N.W.2d at 600 (quoting Iowa R. Evid. 5.704). Yet the opinion should be “helpful to the jury and bear[] on matters outside the realm of common knowledge and experience.” See *State v. Fox*, 480 N.W.2d 897, 899 (Iowa Ct. App. 1991). We recognize the tension that can occur between the court’s discretionary decision to disallow expert testimony and a party’s desire to creatively try his or her case.

So, we look to our rules of evidence for guidance on what qualifies as admissible expert testimony. See Iowa R. Evid. 5.702 (“A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue.”). In *Ranes*, the test for determining the admissibility of expert testimony was (1) “if the testimony will assist the trier of fact in understanding the evidence or to determine a fact in issue (because of the existence of a reliable body of knowledge, which is also relevant to the issues being decided by the factfinder)” and (2) “if the witness is qualified to testify as an expert by knowledge, skill, experience, training, or education.” 778 N.W.2d at 685 (cleaned up). Here, as to the first step, evidence is relevant if “[i]t has any tendency to make a fact more or less probable than it would be without the evidence” and; “is of consequence in determining the action.” Iowa R. Evid. 5.401.

Because the genesis of this appeal stems from Farley's assertions in her motion for new trial, we examine the opinions she believed Wolf should have been allowed to proffer at trial as set out in her motion. To determine if the court exercised its discretion on grounds or for reasons clearly untenable or to an extent clearly unreasonable, we must begin with what opinions were properly disclosed by Farley and if they would have assisted the jury with its determination of the facts. Because we can resolve this matter at the first step, we do not have to reach the expert's qualifications.² But, even when an expert's credentials are sufficient to qualify him as an expert in relation to the excluded material, that alone is not enough. See *Osborn v. Massey-Ferguson, Inc.*, 290 N.W.2d 893, 900 (Iowa 1980). In her motion for new trial, Farley set out Wolf's opinions that the jury should have been able to consider as:

1. The source of ice upon which [Farley] slipped was snowmelt from [Schultzes'] property which flowed across the sidewalk and their driveway and re-froze as temperatures fell in the late afternoon and early evening.

2. Based upon the topography of the area and moving snow from the driveway to the east and south of the driveway would help minimize potential snowmelt across the sidewalk and driveway.

3. [Schultzes] were both working from home that day, did not leave the residence until that evening, and would have had adequate time to apply ice melt, sand, or cinders to the sidewalk prior to ice developing and prior to [Farley's] fall.

4. Ice formation, at ground level, can and will form when the actual air temperature is above 32 degrees and how and why this occurs.

² Given our liberal standards regarding the testimony of experts, Wolf's qualifications as summarized in his deposition and the offer of proof would not have been the impediment here. The dissent seems to assert that the district court found Wolf to be unqualified to testify, but we do not read the substance of the ruling on the motion for new trial in that manner. And, we find there are other more compelling reasons that justified the district court's exercise of its discretion here.

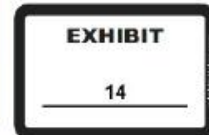
5. If some form of ice maintenance had been performed on the sidewalk/[Schultes'] driveway prior to [Farley's] fall, the potential for [Farley's] fall would have been significantly reduced.

In this slip-and-fall case, the jury was instructed that they should resolve whether the Schultes breached their duty as defined by Iowa Code section 364.12(2)(b) (2021) ("The abutting property owner [of a public sidewalk] is responsible for the removal of the natural accumulations of snow and ice from the sidewalks within a reasonable amount of time and may be liable for damages caused by the failure of the abutting property owner to use reasonable care in the removal of the snow or ice."). From here we ask—would Wolf's specialized knowledge allow for opinions that would help the jury understand the evidence or decide a fact in issue?

Returning to the opinions Farley wanted Wolf to discuss, a video exhibit clearly showed Farley slipping and falling in the Schultes' driveway on what all agreed was an icy surface. All parties conceded that the sidewalk area where Farley fell was ice-covered and that it appeared to be from the snowmelt flowing down the Schultes' driveway from the west side of the property where snow had accumulated on the lawn.³ When subjected to cross-examination during the offer of proof, Wolf agreed that both parties testified that the ice on the sidewalk area was from snow melt and that fact was not a "disputed aspect of the case." In the second conclusion, Farley wanted Wolf to discuss the lawn and driveway's

³ Eric Schultz testified that over the fourteen years at the property he was aware that the snow melt on nice days would cross over the area of the sidewalk and driveway where Farley fell and that the area was prone to refreezing.

topography, but a photograph of the yard was offered as an exhibit, which clearly showed the snow melt pattern:



And to the assertion that Wolf could have informed the jury that Schultzes could have shoveled their yard to have minimized the melting/freezing effect across their driveway, it was certainly a suggestion that would be in the knowledge of a typical layperson juror. But more to the point, it would not be a duty that was required under the law the jury was instructed to follow.

The jury was instructed that Farley had to prove Schultzes knew about the natural accumulation of snow and ice, or that it existed long enough for Schultzes to have discovered and removed it in the exercise of ordinary care. And as to that duty to apply ice remediation products, the witnesses, without dispute, confirmed that the Schultzes were home earlier that day before the fall and that no ice melt or sand was ever applied to the area where Farley fell that day. Again, without

expert testimony, a layperson juror could understand that had ice melt or sand been applied to an icy area would reduce the risk of a fall. And laypersons certainly understand how ice melt and sand work on sidewalks. So Wolf's expert opinions relating to the ice existing at the time of the fall, the topography of the yard and the use and benefits of applying ice remediation products were not essential to understanding these facts. Or as stated another way, the "expert's scientific, technical, or other specialized knowledge" on these subjects was not essential to understanding the facts at issue. See Iowa R. Evid. 5.702.

But here, the jury also had to answer the question if Schultzes had a duty to apply those ice remediation products before Farley fell, given the law of the case. No one could testify that when Schultzes left the home before the fall, there was ice on the area where Farley fell. As to Wolf's conclusions related to the thermodynamics of ice formation at ground level during certain temperatures, the district court reasoned that the expert "performed no experiments or [made] any attempts to duplicate the weather conditions on the day in question or make any calculations." And while one of Wolf's conclusions suggested that the Schultzes should have pretreated the sidewalk before any ice formed, that is not a duty required under Iowa law, even Wolf opined that he could not pinpoint when the ice formed on the Schultes' property the day of Farley's fall.

Instead Wolf's opinions were cumulative, and thus, the exclusion was not untenable or unreasonable and, in the end, did not prejudice Farley. Yet Farley argued:

The other thing with respect to the cumulative point, I think the testimony is not cumulative. We expect that [Schultzes are] going to have an expert who's going to testify about what the air temperature

was that evening and that temperatures were above freezing. I think it's important for us to be able to offer expert testimony to explain how it is, in fact, possible that air temperature can be above freezing, above 32 degrees, while surface area like here, the system that Mr. Wolf has talked about can, in fact, be freezing and have ice on it.

The Schultzes responded that “difference in air temperature versus ground temperature” was not in Wolf’s designated opinions and that evidence would not be relevant because their expert “is simply testifying that at the time that [the Schultzes] left their home, it is possible that the condition they viewed, wet, was possible. They left before Ms. Farley crossed the sidewalk.” And in Wolf’s deposition, he confirmed that he was not providing any opinion as to what time the water froze by noting, “I have not tried to predict that at this point in my investigation.” Likewise, Hicks testified that it was “not likely possible to predict precisely what time meltwater from the snow cover would begin to refreeze on the Schultzes’ driveway.” “[T]rial courts have a well-recognized role as guardians of the integrity of expert evidence offered at trials.” *Ranes*, 778 N.W.2d at 686. “[F]or the expert’s opinion to be competent, sufficient data must be present upon which an expert judgment can be made; these facts must be sufficient for the witness to reach a conclusion which is more than mere conjecture or speculation.” *Iowa Power & Light Co. v. Stortenbecker*, 334 N.W.2d 326, 330–31 (Iowa Ct. App. 1983); see also *Osborn*, 290 N.W.2d at 900. Any testimony offered about when the snow melt turned to ice on the day of the fall would have involved speculation and was not competent evidence for the jury’s consideration.

And as for the disclosure of the opinions described in the motion for new trial, the court stated: “The disclosures regarding [Wolf’s] testimony did not assert that he would give an expert opinion based upon his knowledge and experience

with the laws of thermodynamics and heat transfer. In addition, at the time of his deposition, Wolf had performed no experiments or made any attempts to duplicate the weather conditions on the day in question or made any calculations. Therefore, the opinions later asserted in the offer of proof were undisclosed to [the Schultzes].” The written expert disclosure did not contain reference to thermodynamics or heat transfer. Although, to be fair, some reference was made in the Wolf’s deposition to these scientific topics, but no defining opinions were offered at that stage that went towards a fact the jury was to resolve. See *McGrew v. Otoadese*, 969 N.W.2d 311, 324 (Iowa 2022) (noting that the expert disclosure rule involving the summary of facts and opinions “does not require a high level of specificity, [but] clearly there must be some summary of the actual facts and opinions to which the witness is expected to testify. A mere list of topics or subject areas does not meet the requirements of the rule”).

Thus, expert testimony was not required to show there was ice on the property or that the topography of the property created a situation where melting snow on the lawn traveled across the sidewalk and driveway. The opinion related to the topography and effort to minimize the flow of snow melt across the property was common knowledge based on the testimony of the Schultzes and the photograph entered as an exhibit. Wolf’s testimony would not have provided any specialized information a general layperson would not already have known. Likewise, the expert opinions related to the use of ice melt, sand, or cinders after discovery of the ice, related to common sense layperson topics and did not require

expert testimony.⁴ Finally, the conclusions involving thermodynamics were undeveloped and not timely disclosed in a format that would aid the jury in determining when ice might have formed before the fall.

Based upon the above reasoning, we find that the court's grounds for excluding Wolf's expert testimony were not "clearly untenable or to an extent unreasonable." *Graber*, 616 N.W.2d at 638.

IV. Conclusion.

Finding no abuse of discretion related to the exclusion of the expert testimony, we affirm the jury verdict rendered.

AFFIRMED.

Langholz, J., concurs; Sandy, J., dissents.

⁴ In the third disclosed opinion in his first report, Wolf also referenced an obligation by the Schultzes to pre-apply ice inhibiting measures, but given the law of the case as found in the jury instructions, that was not a relevant issue and it would have been improper expert testimony in any event. Also the district court did not allow testimony about the application of the city ordinances related to snow removal so those opinions were not relevant.

SANDY, Judge (dissenting).

He is a mechanical engineer, and his report really discusses weather events . . . and whether putting salt or ice down would have done anything. None of those opinions involve any mechanics So I don't know what a mechanical engineer is offering with respect to melting and freezing snow when he's providing no opinion that a machine could have done anything to change it.

Those words were spoken by defense counsel to the trial court at the final pre-trial conference in support of its motion to exclude plaintiff's expert based on relevant qualifications. The trial court agreed and granted the motion. But a mechanical engineer is not a mechanic tinkering with machines—he is an expert in physical science dealing with force and energy. Because the trial court took too narrow a view of what a mechanical engineer is, it incorrectly excluded Wolf as a plaintiff's expert.

In addition, I do not agree with the district court's conclusion that Wolf's opinions were not adequately disclosed through a combination of his report (filed almost one and a half years prior to trial), his filed affidavit in resistance to the defendant's motion to disqualify (filed almost one year prior to trial), and his deposition (taken almost one year prior to trial). Finally, I disagree with the majority and district court's reasoning that Wolf's trial testimony would only support that which was already known by the jury: there was ice on the sidewalk. Like the misunderstanding of the scope of expertise of a mechanical engineer, I find this reasoning takes too narrow a view of the purpose of the excluded testimony. Because of these differing views, I respectfully dissent.

I. Disclosure.

I disagree that “no defining opinions were offered” at Wolf’s deposition relative to thermodynamics or heat transfer. An expert is permitted to testify on matters “within the fair scope of the discovery proceedings.” *Milks v. Iowa Oto-Head Neck Specialists, P.C.*, 519 N.W.2d 801, 807 (Iowa 1994). In my view, the following excerpts from Wolf’s deposition (taken eleven months prior to trial) demonstrate that “defining opinions were offered” relative to “the fair scope of the discovery proceedings”:

And so I wanted to have some articles in my file that backed up what I knew to be the phenomenon, the heat transfer phenomenon and characteristics I believe are involved in this matter.

. . . .

My background on the energy side has been on the thermal side. Thermal energy is one of six forms of energy. And specifically, I’ve got extensive background in thermodynamics, which is the study of heat, temperature, and energy and their relations.

. . . .

Mechanical, again, goes back to the word mechanics, which is the physical science dealing with force and energy. And if you look at the interaction between Ms. Farley’s feet and the slick surfaced posed by the ice, that is force, and that force—the available force or friction between her shoes and the ice is dictated by friction.⁵

. . . .

The potential for the subject incident or subsequent injuries would have been significantly reduced, while ice maintenance would be the application of some sort of salt or ice-melt compound or the application of sand or some other friction enhancement material.

. . . .

As I’ve said, I’ve received extensive education in thermodynamics and heat transfer. Water was far and away the most studied substance in those classes. So, the thermophysical properties of water and its performance in various temperatures and conditions, I have studied extensively as part of my mechanical engineering background.

⁵ This answer was specifically explaining his written expert report opinion “[i]f some form of ice maintenance had been performed on the sidewalk area prior to the incident involving Ms. Farley, the potential for the subject incident and her subsequent injuries would have been significantly reduced.”

. . . .
 Water's behavior on that sidewalk is going to be a function of the energy content, which the energy content of that water is going to be dependent upon what the temperature of the weather conditions are.

. . . .
 Well the thing with the weather data is the weather data is ambient air temperature. But what happens when the sun goes down is that you can begin to have what's known as radiative cooling. When the night sky turns dark, instead of the warm, radiant energy coming from the sun, an object can now start to radiate energy back into the dark sky.

. . . .
 So in this particular case, when you are two, two and a half hours past sunset, that the water on the sidewalk can now radiate energy to the dark sky and potentially freeze even before the air temperature reaches thirty-two degrees.

. . . .
 The salt will dissolve and a thin layer on the top, and the sodium and chlorine ions separate, and it lowers the vapor pressure of the water, which reduces the freezing point of the water. The addition of salt to the surface of the ice, it's—some descriptions of the event that the addition of salt creates chaos, or the increase is what we call it in thermodynamics, the entropy of the system or the water. So, when you increase that entropy, that lowers the freezing point of the water. Entropy of water is a thermophysical property that we study in our thermodynamics classes.

These excerpts coupled with the written expert designation⁶ clearly place thermodynamics and heat transfer principles within the “fair scope” of Wolf's testimony, as they directly relate to the weather conditions and condition of the sidewalk where “the fall” occurred as disclosed by Wolf.

But the deposition aside, I find that the *written* disclosures contained references to thermodynamics or heat transfer. As a starter, the Iowa Supreme Court has recognized that so long as the general scope of testimony is designated,

⁶ The written expert designation stated Wolf would testify about “the fall, the West Des Moines . . . and actions [the Schultzes] could have taken to make their property safe.”

a line-by-line verbatim transcription of every opinion an expert may give is not required. *Eisenhauer ex rel. T.D. v. Henry Cnty. Health Ctr.*, 935 N.W.2d 1, 20-21 (Iowa 2019) (finding expert designation stating that the purpose of expert testimony was to have him testify on issues “standard of care, causation, and damages” and that his opinions regarding the maneuvers he used in treating the patient were within the fair scope of his designation); see also *Millis v. Hute*, 587 N.W.2d 625, 628 (Iowa Ct. App. 1998) (finding that where the plaintiff claimed the defense expert’s “deposition testimony went beyond the fair scope of the opinions expressed in his written report,” the purpose of now Iowa Rule of Civil Procedure 1.508 was “to avoid surprise to litigants and to allow the parties to formulate their positions on such evidence as is available” and because the deposition was taken several months before the trial date, the plaintiffs “had sufficient opportunity to seek further testimony on the disputed issues from their own experts but chose not [to] do so”).

The question is thus, what is within the “fair scope” of the designation and whether the defendants were “surprised without sufficient opportunity to seek further testimony on the disputed issues from their own expert.” Under paragraph one of the comments section from his expert report, Wolf states that the runoff “was most likely water from melted snow along the west side of the driveway which thawed, flowed across the sidewalk, and then froze again following sunset as the temperatures fell in the late afternoon and early evening hours of January 5, 2021.” Moreover, he wrote “[i]f some form of ice maintenance had been performed on the sidewalk area prior to the incident involving Ms. Farley, the potential for the subject incident and her subsequent injuries would have been significant reduced.”

Here, Wolf applied thermodynamic and heat transfer concepts to conclude the above as further explained in his deposition. Wolf's opinions need to be read cumulatively and with common sense given all available materials (his report, his affidavit, and his deposition). In my view, the exclusion of Wolf's testimony for lack of disclosure is inconsistent with case law and too narrowly accounts for all of the record (his report, his affidavit, and his deposition). It does a disservice to the process. The fact that Wolf "opined that he could not pinpoint when the ice formed on the Schultes' property" does not matter if his expertise nonetheless would have assisted the jury in determining the window of time within which the ice did form. All of Wolf's opinions were within the "fair scope" of the evidentiary disclosures made to the defendants by way of his report, affidavit, or deposition—all of which were provided some one year prior to trial.

I am not persuaded that Wolf provided "newly developed opinions." The defendants were put on ample notice about what Wolf would testify to and why—if not by his report and affidavit, certainly by the end of his deposition nearly one year before trial. And because the defense had their own expert (who had the benefit of testifying) they had a "fair opportunity to seek further testimony on the disputed issues."

II. Qualifications.

Although somewhat lost in translation, the exact motion the defense filed to disqualify Wolf was based on his lack of qualifications. And that was the exact motion sustained by the trial court at both the pre-trial conference and the offer of proof during trial. Iowa Rule of Evidence 5.702 provides that "[a] witness who is qualified as an expert by knowledge, skill, experience, training, or education may

testify in the form of an opinion or otherwise if the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue." Iowa courts generally take a liberal and flexible approach to the admissibility of expert opinions. *Leaf v. Goodyear Tire and Rubber Co.*, 590 N.W.2d 525, 533 (Iowa 1999).

Wolf has a bachelor of science and master of science in mechanical engineering from Iowa State University (ISU) and was formerly a doctor-of-philosophy candidate in mechanical engineering at ISU. Wolf is a registered professional engineer in twenty-eight states, including Iowa. He completed graduate coursework, including some doctorate work, in advanced thermodynamics subjects, as well as statistics, which focused on building prediction correlations. During work on his master's degree, he completed a research assistantship and taught a thermodynamics course at ISU. His graduate work emphasis was in thermodynamics and heat transfer area. Since 1995, he has served as a consultant in slip-and-fall cases in a number of engineering areas, including moisture control and source analysis. He has conducted seminars and professional presentations involving weather-related events and their effects on mechanical systems. He has extensively studied the thermophysical properties of water and its performance in various temperatures and conditions as part of his mechanical engineering background.

He has owned his own mechanical engineering consulting firm, Duane A. Wolf Engineering, located in Ames, Iowa, since 2012. The types of matters he consults on regularly involve aspects of the weather or weather conditions. He is a member of the American Society of Mechanical Engineers and a published

author of several field-related technical papers and industry journal articles. He is a member of the American Society of Heating, Refrigerating, and Air Conditioning Engineers, an organization very active in climate-related matters, which sponsors many seminars and technical sessions at their semi-annual conferences involving climate related topics. As a licensed professional engineer, he completes thirty hours of continuing education every two years in which he continues to study advancements in heat transfer and weather-related information.

Wolf has served on the City of Ames Building Board of Appeals since April 2019. In that role, he has heard appeals involving safety-related issues with structures in the City of Ames, city ordinances, and the decision-making process. As a mechanical engineer, he routinely relies on codes, standards, and ordinances as they pertain to his investigations. Wolf has also served as an expert witness in over one hundred cases, including those involving slip and falls on sidewalks and ice. He routinely uses a variety of meteorological and climatological data to analyze information and form opinions in a wide variety of cases, including slip and falls. Wolf relies on weather data regularly in his work and is experienced and knowledgeable about how weather conditions affect surfaces, including residential sidewalks and driveways. In the present case, the weather or meteorology aspect that he considered was looking at the temperatures and the weather data during the relevant time of Farley's fall. Wolf is also familiar with how ice melt affects the physical properties of water. His training and education included learning how to account for how weather conditions affect physical structures and mechanisms, including residential sidewalks and driveways. He explained during his deposition

that mechanical engineering plays a role in how snow and ice responds to various remediation efforts.

He is also familiar with how the topography of an area—including its grade, slope, and elevation—affects the direction and rate of the flow of water over that area. In connection with this case Wolf consulted technical papers including topics covering the effect of salt on freezing point, water vapor data, sand as a friction coefficient, ice on roadways and surfaces, and nighttime radiative cooling. Basic concepts within his expertise that are relevant to this case include forces and friction, fluid mechanics, heat transfer, and city and state ordinances regarding property maintenance requirements.

Wolf is very qualified. His knowledge, skill, experience, training, and education qualify him under Iowa case law and evidentiary rules to serve as an expert witness. While the majority does not take issue with Wolf's qualifications but rather whether his opinions would aid the jury in understanding the evidence or determine a fact in issue,⁷ in my estimation, the two are inextricably linked. That is, a full appreciation of his qualifications is key to comprehending how he could aid the jury in not only understanding the evidence but the fault—which was most certainly in dispute. Further, while the majority does not question Wolf's qualifications, the district court certainly did and it formed the entirety of its exclusion of him as witness prior to trial commencing. Cognizant that the jury returned a verdict of forty-nine percent fault to the defendants and fifty-one percent to the plaintiffs, I next address the relevance of Wolf's properly disclosed opinions

⁷ The trial court's actual pre-trial and offer of proof rulings were not based on "aid to the jury" reasoning—it was based on Wolf's qualifications.

and how disallowance of his relevant opinions to contested issues prejudiced the plaintiffs.

III. Relevance and Prejudice

I disagree with the majority's adoption of district court's reasoning that "Wolf's trial testimony would *only* support that which was already known by the jury: there was ice on the sidewalk." (Emphasis added.) In my view, this oversimplifies Wolf's testimony, does not give adequate consideration to his qualifications and expertise as outlined above, and does a disservice to the effect of the numerous other opinions he would have been able to explain to the jury. Here is a fair summary of all the properly disclosed opinions of Wolf:

- The weather conditions for the month of January 2021;
- The Schultzes' specific duty to remove ice from the sidewalk;
- The Schultzes' specific duty to prevent ice from forming;
- Whether Farley's slip-and-fall arose from the icy sidewalk;
- How piling snow removed from the driveway in a different location could have prevented the snowmelt from running onto the sidewalk;
- Adequate time existed for the Schultzes to treat the sidewalk prior to the Farley's fall; and
- Preventative measures the Schultzes should have taken would have significantly reduced the potential for the subject incident.

I cannot read a cold transcript of the trial testimony and summarily conclude that photographs and self-serving testimony of the Schultzes achieved the same effect on the jury that an expert with Wolf's qualifications would have provided.

For example, as to the timing relative to the application of preventative measures given the climate variables, Wolf opined that since the Schultzes were both working from home that day and did not leave the residence until that evening, they would have had adequate *time* to apply ice melt, sand, or cinders to the sidewalk prior to ice developing and prior to Farley's fall. And that if some form of

ice maintenance had been performed on the sidewalk area prior to Farley's fall, the potential for the subject incident would have been significantly reduced. Establishing a timeline and pinpointing an exact time are distinct. While Wolf may not have been able to pinpoint the exact minute the ice developed, he did not need to for the above opinion to help the jury understand the evidence, the general timeline, or form an opinion as to the following fact at issue—did the Schultzes act reasonably?

I am not convinced that just because everyone agrees the sidewalk was icy at the time Farley fell and the snowmelt that caused the ice formation came from the Schultzes' property, that Wolf's testimony would have been cumulative and not needed to "understand the evidence or determine a fact in issue." The issue is not simply whether the sidewalk was icy at the time Farley fell or whether snowmelt from the Schultzes' property caused the formation of ice. The issue is whether the Schultzes were negligent in allowing the icy condition to occur and/or remain. Wolf's testimony could have provided the jury valuable expertise making them capable of more accurately determining whether ice was present on the sidewalk *before* the Schultzes left home that evening, that they had ample time and notice to rectify the situation, how the ice melt and the ice presence on the sidewalk could have been prevented, and what defendants should have done differently. His failure to provide the exact minute when the ice formed does not make his testimony any less helpful to the jury in assisting them in their determination of that ultimate fact question.

The jury was instructed as follows:

Instruction No. 26**Owner Liability for Sidewalks – Natural Accumulation of Snow and Ice**

The owner of land next to a sidewalk must remove, within a reasonable amount of time, any snow and ice that has naturally accumulated on the sidewalk. The owner must exercise ordinary care in removing the snow and ice.

The plaintiff must prove that the owner knew about the natural accumulation of snow and ice, or that it existed long enough for the owner to have discovered and removed it in the exercise of ordinary care.

A violation of this law is negligence.

Wolf certainly had disclosed prior opinions relevant to disputed facts at issue in this instruction,⁸ and no photograph or lay testimony would have equaled that testimony to a scientific degree of certainty.

This is but one example. Wolf concluded not only that the source of the ice upon which Farley slipped was most likely snowmelt from the Schultzes' property, but that based upon the topography of the area, had the piled-up snow from the driveway been moved to the east and south of the driveway, the potential for snowmelt to flow across the driveway and sidewalk would have been minimized. In a case with a two percent differential of fault, such expert testimony was indeed relevant to the Schultzes' negligence and exclusion of such was prejudicial to Farley.

I am not able to proclaim that such testimony would not have changed the way the jury viewed the allocation of fault in this matter. I do not view Wolf's

⁸ Such as: why ice can form on a sidewalk when the ambient air temperature is above 32 degrees; the principles of heat transfer and thermodynamics and how they are related to and relevant to the issues in the case; why it is relevant and related to heat transfer and thermodynamics vis-à-vis shading; lack of direct sunlight and the night sky; the efficacy of ice-melt; and how ice melt works.

propounded testimony as merely “cumulative” but rather an application of scientific principles to objective facts to draw conclusions about the Schultzes’ acts (or omissions) that caused Farley’s fall. To reason that photographs and lay witness testimony aided the jury in the same way someone with Wolf’s qualifications would ignores how a mechanical engineer is able to use his or her expertise in force and energy in rendering scientific opinions.

Finally, there is one additional matter that I find troubling. The trial court allowed the Schultzes’ expert, Dan Hicks, to testify. Hicks relied on weather data to reach his conclusions. Hicks was permitted to opine about whether the sidewalk was icy or merely “wet” when the Schultzes left the property for the evening but competing and conflicting expert testimony by Wolf was disallowed. Like Wolf, Hicks could not ascertain the exact minute that ice had formed. Yet he testified about the general timeline. I fail to understand how the defense expert was allowed to testify about the condition of the sidewalk and timing of such condition relative to the weather when the court had previously ruled that Wolf’s testimony “would *only* support that which was already known by the jury: there was ice on the sidewalk.” (Emphasis added.) If the propounded testimony would truly not aid the jury, it would not aid the jury for both parties.

Because liability was determined without the benefit of Wolf’s timely disclosed and relevant testimony on the Schultzes’ negligence and liability, and because such was critical to Farley’s case and thus prejudiced her, I respectfully dissent. I would reverse and remand the case back to the district court to be retried to a jury consistent with the opinions set forth above.