STATE OF MICHIGAN COURT OF APPEALS

MICHAEL H. BERNARDI,

UNPUBLISHED June 18, 2020

Plaintiff-Appellant,

 \mathbf{v}

No. 347134 Lapeer Circuit Court LC No. 17-051096-NI

TONYA MELYNDA ROCK,

Defendant-Appellee.

Before: GLEICHER, P.J., and GADOLA and LETICA, JJ.

PER CURIAM.

In this automobile-negligence action, plaintiff, Michael Bernardi, appeals as of right the trial court's order granting defendant Tonya Rock's motion for summary disposition under MCR 2.116(C)(10). In particular, the trial court determined that the expert's opinion that the accident caused plaintiff's herniated disc was unreliable, and, without it, there was no evidence of causation. We affirm.

I. BACKGROUND

On September 9, 2014, defendant was driving a Jeep Grand Cherokee Laredo behind plaintiff, who was operating a school bus transporting five middle schoolers. Plaintiff was wearing a shoulder harness and lap belt and had just come to a stop. Defendant testified that she had been following the bus when she looked down, swept some crumbs off her lap, and looked back up to see the stopped bus. Defendant slammed on her brakes, but nevertheless "slid into the back of" the bus.

At that point, plaintiff testified that he was leaning forward to grab the park brake with his right hand to pull it, but was uncertain whether he actually grabbed the park brake. Defendant described the impact as "[j]ust tap[ping] the [bus's] bumper" and testified that her air bags did not deploy. Plaintiff, who is 5' 8" and, at that time, weighed approximately 245 pounds, described feeling the impact "a little bit," explaining "[i]t's a heavy bus." Plaintiff's foot moved off the brake, and the bus, that was in neutral, rolled forward, "maybe ten feet or so" before plaintiff stopped it. After engaging the parking brake and determining that no one on the bus was injured,

plaintiff testified that he contacted his supervisor and remained in his seat. Plaintiff felt "okay" and was "not in any discomfort."

Although plaintiff testified that he did not speak to defendant or look at the back of the bus, defendant testified that plaintiff left the bus, told her "he was fine," "walked around the bus, and pointed out that there wasn't even a scratch on the [bus's] bumper."

The Undersheriff, who responded to the scene, confirmed that there was no visible damage to the bus, assessing it as zero in his report. If the Undersheriff had seen a single scratch, he would have scored the damage as a one. However, the Undersheriff rated the damage to the SUV as two, meaning that there was damage to the hood that would require repair. The later repair bill was \$3,580.83 as the Jeep had damage to its front grille and hood. The Undersheriff also specifically asked plaintiff if he was injured and plaintiff replied that he was not.

Plaintiff's supervisor arrived and completed the route before returning plaintiff to the garage. Per policy, plaintiff was sent to a clinic for a urinalysis screening and drug test.

Thereafter, plaintiff returned to the garage and provided a written statement, explaining that he had "heard tires" before the bus was "hit in the rear by [a] car." Plaintiff reported that there was "[n]o damage to [the] bus" and "no inj[u]ries."

Plaintiff clocked out and went home "feeling fine." The next morning, however, plaintiff "couldn't get out of bed." Plaintiff nevertheless went to work and guided another driver through his route for two- and one-half hours before he went to the hospital at his supervisor's direction after reporting his back pain to her. At the hospital, plaintiff reported pain in his right buttocks and down his right leg almost to the area behind his right knee. An x-ray was ordered and the resultant report revealed degenerative disc disease, including at L3-L4 and L4-L5 levels. Plaintiff was diagnosed with a right sciatica and lumbar gluteal myositis, and prescribed medication.

After a few weeks, plaintiff sought help from his primary care physician, who referred him to Dr. Geoffrey Seidel, a specialist in physical medicine and rehabilitation. On October 24, 2014, more than six weeks after the accident, plaintiff first saw Dr. Seidel, who noted that plaintiff was limping and ordered a CT without contrast dye. The written result accompanying the CT noted a history of "[m]otor vehicle collision." It also revealed that plaintiff had a ruptured disc at L4-L5 of his spine with a large extrusion of the disc material. Additionally, plaintiff suffered from chronic degeneration in his spine along with nerve damage due to his age (sixty), arthritis, obesity, and diabetes.

Dr. Seidel referred plaintiff to Dr. Sidhu, a surgeon. On November 14, 2014, Dr. Sidhu reviewed Dr. Seidel's CT images, which he opined "were somewhat fuzzy" with certain detail being "relatively poor." At that point, plaintiff had not engaged in physical therapy and an MRI could not be performed because plaintiff had metal in his eye from an earlier employment injury. Dr. Sidhu ordered a CT with dye contrast. It revealed that plaintiff suffered from severe stenosis,

¹ Dr. Seidel later conceded that the images were fuzzy.

a narrowing of the spaces within his spine, at L3-L4 and L4-L5, with near complete occlusion of the dural sac. Dr. Sidhu agreed that plaintiff also had a herniated disc.

In January 2015, Dr. Sidhu performed a "[b]ilateral decompressive laminectomy with partial facetectomy L3, L4, L5 with severe [spinal] stenosis with excision of herniated disc at L4-L5[.]" Plaintiff engaged in physical therapy, but ultimately underwent a second surgery, a spinal fusion, in November 2017.

In the interim, plaintiff sued defendant, alleging that he had suffered a serious impairment of body function as a result of the 2014 accident, and that, even if he had a pre-existing condition, defendant's negligence had aggravated it. After engaging in discovery, defendant filed a motion for summary disposition under MCR 2.116(C)(10), contending that there was no genuine issue of material fact regarding plaintiff's ability to establish that this accident caused plaintiff's injuries as well as a serious impairment of an important body function. Defendant noted that plaintiff had been involved in an earlier separate rear-end accident about a month before this incident—a fact that plaintiff had failed to disclose to his various treating and examining physicians. Moreover, in reviewing the respective damage to the bus and SUV, defendant's expert accident reconstructionist opined that the maximum impact-induced velocity change was 2 to 3.7 mph. "Impact tests using human subjects indicate[d] that velocity changes within this range are below levels associated with injuries." And "[t]his energy exchange would result in a maximum g-force of only 0.9 to 1.7 g for the" bus. According to defense counsel, such g-forces were less than those involved in a sneeze or cough. Defendant also submitted the opinion of Dr. Roth, a physiatrist like Dr. Seidel, who had evaluated plaintiff as part of an independent medical examination (IME) for plaintiff's workers' compensation claim and determined that plaintiff's lower back pain resulted from his pre-existing, long-term diabetes, not the September 2014 accident.

Plaintiff's response detailed his 35-year career with Ford Motor Company, including his time as a hi-lo driver before he retired in 2009. In 2011, plaintiff began his part-time position as a school bus driver and worked until the day after this accident. Plaintiff conceded that he initially believed that he was uninjured; however, "as his adrenaline wore off," he awoke in pain. Plaintiff asserted that his "medical records clearly establish that his injuries and treatment stem[med] from" this accident. In part, plaintiff attached a letter from Dr. Seidel to plaintiff's primary-care physician and copied to his surgeon, stating: "I consider this disc herniation to be work[-]related." Plaintiff rejected defendant's contention that plaintiff's earlier August 2014 accident caused his current injuries. Plaintiff explained that the August accident occurred when his sedan was rear-ended while it waited in a line to enter the county fairground. Plaintiff claimed to be traveling at less than 5 mph, and, although the later repair bill was \$777.24, plaintiff testified that he was uninjured. Regarding Dr. Roth's IME, plaintiff noted that all of his medical bills were paid pursuant to his claim under the workers' compensation act³ and that his request for Social Security disability

² This was plaintiff's counsel's description, not plaintiff's deposition testimony.

³ Plaintiff testified that he settled his workers' compensation claim.

(SSD) benefits⁴ was approved as of the day after the accident.⁵ Moreover, plaintiff asserted that defendant was legally responsible even if plaintiff's physical condition had predisposed him to injury as a result of this accident.

Defendant responded that plaintiff's medical records confirmed degenerative or arthritic damage in plaintiff's spine and evidenced nothing more than plaintiff's complaints after the accident. There was no admissible medical or expert opinion that plaintiff's actual injury was caused by the accident rather than by plaintiff's degenerative condition.

At the hearing on defendant's motion, the trial court rejected defendant's claim that there was evidence that plaintiff's injuries arose from the earlier accident as opposed to this accident. The circuit court also reasoned that temporal connection alone could not establish a causal relationship and that plaintiff's reliance on the SSD determination did not aid him because it did not connect his injury to this accident. But Dr. Seidel's referral letter indicated that Dr. Seidel considered plaintiff's herniated disc to be "work-related," and "when viewed in the light most favorable to plaintiff, [it] would be some evidence to support a finding of causation if the opinion would be admissible at trial." Because the circuit court needed additional information underlying Dr. Seidel's conclusion, it afforded plaintiff the opportunity to demonstrate that Dr. Seidel's opinion testimony was admissible evidence.

The attorneys then deposed Dr. Seidel, who had practiced for 26 years and saw approximately 850 patients annually, and met with plaintiff three times. As already mentioned, plaintiff's initial visit was on October 24, over six weeks after the accident. Plaintiff reported that there was a concern that he had "a pinched nerve in his back" and had not improved. Plaintiff was limping and reported a history of "trauma," being rear-ended while driving a bus. Although plaintiff had no immediate pain, he "developed lower back pain over the next few hours[.]" Plaintiff reported never "having a problem like this before." Dr. Seidel thought that "there might have been an underlying non-trauma related peripheral neuropathy, the tips of the nerves not working as well as they should, and that there was obesity."

Although Dr. Seidel would have preferred to conduct an MRI of plaintiff's lumbar spine, it was not possible because of the metal that plaintiff had in his eye. Dr. Seidel also thought that a herniated disc was a possibility so he ordered a CT scan of plaintiff's lower back and scheduled an electromyography (EMG) to evaluate plaintiff for nerve damage. Dr. Seidel did not document and had no independent recollection of reviewing plaintiff's earlier hospital x-ray.

⁴ The SSD determination was governed by a rule that factored in the claimant's age, educational level, and the investment required to readjust the claimant's employment. Plaintiff's impairments included his spine disorders (primary), reconstructive surgery of a weight-bearing joint (secondary), and diabetes mellitus (other).

⁵ Plaintiff testified that he was awarded disability back to the date of the accident (plus an additional five months); however, the paperwork related to the disability determination reflects the "established onset date" was the day after the accident.

The following week, Dr. Seidel performed the EMG and a nerve conduction velocity test. This testing confirmed that the tips of plaintiff's nerves were not working well. Dr. Seidel diagnosed peripheral neuropathy, ⁶ but could not explain the absence of plaintiff's H reflexes from that condition. Instead, Dr. Seidel thought it might "be consistent with lumbar spinal stenosis for potential disc herniation in [plaintiff's] lumbar spine."

Although Dr. Seidel was not a radiologist, in his review of plaintiff's CT scan, he suspected that there was disc material at L5-S1. Moreover, Dr. Seidel described "a large disc herniation" at L4-L5.

The following week, plaintiff was not improving as expected. Dr. Seidel then sent a letter to plaintiff's primary care physician with a copy to Dr. Sidhu, referring plaintiff to the latter for a surgical consultation. Therein, Dr. Seidel stated that he considered plaintiff's "disc herniation to be work-related."

During his deposition, Dr. Seidel opined that with a reasonable degree of medical certainty, plaintiff's herniated disc was caused by the accident in light of plaintiff's history, including plaintiff's report of "a bus/auto accident trauma event," and plaintiff's lack of prior symptoms. Dr. Seidel recognized that plaintiff's pre-existing arthritis was "not work-trauma related," but concluded that plaintiff's disc herniation was "work-related trauma related." In particular, Dr. Seidel testified that he "documented, a very large disc protrusion" and "[t]hat's not something I typically see in lumbar spinal stenosis cases, and there was trauma related to that."

Dr. Seidel was "aware that there was no substantial damage done to the physical structure of the bus." If witnesses to the accident had reported little to no physical damage to the bus, this fact would not alter Dr. Seidel's opinion because "cars hitting buses lose[.]"

Dr. Seidel further explained that in his "experience dealing with bus drivers is that they are not restrained[.]" When plaintiff's counsel informed Dr. Seidel that plaintiff had earlier testified that "he was leaning forward and attempting to pull the parking brake of the bus," Dr. Seidel

⁶ Peripheral neuropathy is the result of damage to the nerves outside the spinal cord (peripheral nerves). One of its most common causes is diabetes, which plaintiff had.

⁷ When Dr. Seidel was later asked if he would be surprised to know that the five others on the bus "didn't even feel an impact," Dr. Seidel responded: "I don't know that fact." Dr. Seidel then testified that plaintiff "just told me there was an accident. He didn't tell me any other details about that." Dr. Seidel later repeated that plaintiff "said he was in an accident[.]" Dr. Seidel believed that plaintiff was not "someone that was embellishing or exaggerating And [Dr. Seidel] felt that [plaintiff] was credible in his report."

⁸ Plaintiff's counsel had disclosed this information to Dr. Seidel before Dr. Seidel's deposition began.

opined that plaintiff then "had more of a distance translation of the torso versus the lower half of the body."

Dr. Seidel was not surprised that plaintiff did not seek medical attention until the next morning. Dr. Seidel explained that it was "common for patients to be sore and think that they are going to get better." So "long as they can move around, they don't seek immediate care." And "[m]uscle spasm tends to come on in the hours after." "[M]any people are shaken up and sore, and they don't always go in that day." Furthermore, "[d]isc herniations are not immediate." Instead, one has "to create a crack or fissure in the disc and then, over the ensuing days, the disc material works its way out of the crack or the gap."

Before rendering his opinion, Dr. Seidel never reviewed plaintiff's prior medical records, including any pre-accident imaging or pain complaints. Plaintiff also failed to disclose his earlier rear-end accident to Dr. Seidel. If plaintiff had done so, Dr. Seidel would have made additional inquiries, but, given that the reported damage from the August accident was minimal, Dr. Seidel did not "think a significant injury occurred during that" accident. Dr. Seidel further testified that the prior accident was inconsequential because plaintiff did not "bring it up." With the history provided by plaintiff and given that "individuals can herniate discs with low-velocity trauma," Dr. Seidel's opinion regarding causation did not change.

Dr. Seidel added that "[d]isc herniations are known to occur without trauma" and "[t]hey are known to occur with trauma." Whether the low-velocity impact described by defendant's expert "in an elderly male with underlying arthritic change is more at risk for disc herniation, it appears it is." Dr. Seidel recognized that "[t]he literature says to have post[-]traumatic disc herniation requires breakage of bone and separation of the disc from the bone[.]" However, there is "no study [pertaining to the low-velocity impact described by defendant's expert] in [plaintiff's] age group, to say whether it causes or doesn't cause disc herniation." Likewise, with g forces, "disc herniations occur at various forces in various individuals." Dr. Seidel analogized to warning signs posted at Cedar Point that caution individuals with arthritis or spinal problems about boarding rides with up to 3 or 4 g forces "because they get injuries to their spine by going on those rides." Dr. Seidel then opined that "the elderly are more at risk for g-force changes and disc herniations than younger people."

Asked whether coughing or sneezing could have caused plaintiff's spinal issues, Dr. Seidel responded:

I don't know. I just said to you that coughing or sneezing is something that some people say is associated with disc herniation. Some people say putting their child in a car seat can do the same thing.

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Plaintiff's deposition testimony was that he was leaning forward to grab the park brake with his right hand to pull it; however, plaintiff was uncertain whether he had actually grabbed the park brake.

⁹ Plaintiff's back pain appeared the next morning, not days later.

In any event, even factoring in the police report's description of the accident and defendant's expert's determination regarding the low-velocity impact involved, Dr. Seidel's opinion remained unchanged based on plaintiff's history, his examination, and his review of the CT images without contrast dye.

When further asked to opine regarding Dr. Sidhu's post-surgery conclusion that plaintiff's disc herniation was chronic in nature¹⁰ and not the result of the accident, the following exchange ensued between Dr. Seidel and defense counsel:

- A. You are giving me a hypothetical, and I don't know that information. So at this moment, I am not deferring to Dr. Sidhu regarding the disc herniation.
- Q. My question is, if Dr. Sidhu were to state that, would you have any evidence to dispute that?
- A. At this moment, I would say I would like to look at the CT scan and then make my decision about it before giving you an answer.
- Q. So you would not be able to testify today as to any evidence that you have to dispute that scenario?

* * *

A. I said that I looked at this disc herniation on a CT scan on the day I looked at it, and I felt it was post[-]traumatic and due to the accident and I made that statement.

Now I did not spend time and describe the details of what it looked like at that moment, and I don't recall the details of what it looked like at that moment. [11]

I am not going to defer to Dr. Sidhu, who is looking at different aspects of what the disc is in the operating view. I will respect what Dr. Sidhu has to say and I will consider it, but I'm not deferring to him.

Q. I am not asking you to defer to him. I am just asking if there was anything that you can state today for us, . . . if there is anything that you know or you have seen that could dispute the fact that the disc herniation was something more chronic in nature?

¹⁰ Dr. Sidhu's post-operative note was "[1]umbar spinal stenosis, L3-L [sic? 4], L4-5 with herniated disc at L4-5 with severe stenosis and impending cauda equnia."

When questioned as to whether he would be able to review the CT images and "state whether or not [his individual findings were] related to the . . . accident," Dr. Seidel responded: "Well, I would be able to review [the CT scan], and consider what my answer would be. I wouldn't know if I could meet the criteria you are outlining in your statement." Dr. Seidel explained that, in part, his inability to do so was due to the potential limitations of CT images.

A. I have no answer for you, and you have asked this several times. So I don't have any more information. [Deposition of Dr. Geoffrey K. Seidel, dated October 12, 2018, pp 35-37.]

Thereafter, the parties filed supplemental briefs. Plaintiff relied upon Dr. Seidel's deposition testimony to establish a causal effect from this accident to his disc herniation or aggravation of his previously asymptomatic spinal degeneration.

At the continued hearing, the circuit court again reviewed the facts and applicable law. It granted defendant's motion for summary disposition, ruling:

Dr. Seidel stated in his deposition that his opinion was based on the medical history he received from the Plaintiff that [he] had never experienced symptoms of a ruptured disc prior to the bus collision and only began experiencing these painful symptoms after this event. Again[,] that's from his deposition pages 8 and 11. Plaintiff did not disclose any details about the crash, he only told his doctor that he was -- that there was a collision. The Plaintiff did not tell Dr. Seidel that he had been in an earlier collision one month[] prior to the bus crash. Dr. Seidel said that if he had known about the earlier crash, he would have asked some follow-up questions, but it is unlikely that it would have changed his opinion. Dr. Seidel further stated that he assumed the force of the collision was fairly significant because regardless of whether the bus showed vehicle damage, the smaller vehicle showed damage. He also assumed that the bus driver was probably not restrained in the seat and that because the driver was leaning forward, he had more of a distance translation of the torso versus the lower half of the body. That's at page 13. This is contrary to the established fact that the driver [plaintiff] was belted into his seat. The other assumptions are speculative as there is no evidence that the force of the impact caused the Plaintiff's body to physically move other than his foot slipped off the brake. And that's [plaintiff's] dep[osition], page 16.

Dr. Seidel also stated that the extent of the disc protrusion he observed was typical of trauma-related injury and it was not unusual for symptoms to develop some time after the injury because 'disc herniations are not immediate. You have to create a crack or a fissure, in the disc and then over ensuing days the disc material works it[]s way out of the crack or gap.' Again, that's at pages 14 and 21. He also stated that 'disc herniation can occur with or without the trauma and can occur with minor trauma such as a cough, sneeze, or lifting a small child.' Again, pages 27 and 30. He further stated that he is aware of medical literature that says 'to have post[-]traumatic disc herniation requires breakage of bone and separation of the disc from the bone,' and Plaintiff did not have any fractures or torn ligaments. However, he said he was not aware of whether any of these studies considered the case of a 60-year-old man with arthritis in his back like the Plaintiff. He said 'it appears an elderly man with arthritic changes is more susceptible to this kind of injury,['] but he was not aware of any medical literature specific to the Plaintiff's circumstances.

Dr. Seidel is undoubtedly a highly qualified expert in his field who conducted a thorough and methodical examination of the Plaintiff. However, because his understanding of the nature of the collision was based on incomplete information and inaccurate or speculative assumptions not supported by the record and because there is a lack of published research supporting the proposition that the Plaintiff was unusually susceptible to suffering disc herniation in a low-speed rear end collision without spinal fracture, this Court cannot find the opinion sufficiently reliable to assist the trier of fact in this case. Excluding this evidence, Plaintiff's remaining evidence does not establish a causal link between the bus crash and the injury causing impairment of a body function.

The circuit court entered an order granting defendant's motion for summary disposition and for dismissal with prejudice and without costs.

Plaintiff appeals.

II. STANDARD OF REVIEW

We review a trial court's grant of summary disposition de novo. Planet Bingo, LLC v VKGS, LLC, 319 Mich App 308, 319; 900 NW2d 680 (2017). Summary disposition may be granted under MCR 2.116(C)(10) only "if there is no genuine issue regarding any material fact and the moving party is entitled to judgment as a matter of law." Dancey v Travelers Prop Cas Co of America, 288 Mich App 1, 7; 792 NW2d 372 (2010) (quotation marks and citation omitted). In determining whether a genuine issue of material fact exists, the trial court considers "the affidavits, pleadings, depositions, admissions, and other evidence submitted by the parties " Joseph v Auto Club Ins Ass'n, 491 Mich 200, 206; 815 NW2d 412 (2012). These materials are considered only to the extent that they are admissible in evidence. Nuculovic v Hill, 287 Mich 58, 62; 783 NW2d 124 (2010); MCR 2.116(G)(6). "A genuine issue of material fact exists when the record, giving the benefit of reasonable doubt to the opposing party, leaves open an issue upon which reasonable minds might differ." Dancey, 288 Mich App at 8 (quotation marks and citation omitted). In any event, "'[a] trial court's ruling may be upheld on appeal where the right result issued, albeit for the wrong reason.' " Southfield Ed Ass'n v Bd of Ed of Southfield Pub Schs, 320 Mich App 353, 374; 909 NW2d 1 (2017), quoting Gleason v Dep't of Transp, 256 Mich App 1, 3; 662 NW2d 822 (2003).

III. ANALYSIS

A. CAUSATION

The no-fault insurance act, MCL 500.3101 *et seq.*, imposes a threshold injury requirement for recovery in third-party automobile negligence actions. A plaintiff must demonstrate that because of a defendant's ownership, maintenance, or use of a motor vehicle, the plaintiff has suffered "death, serious impairment of a body function, or permanent serious disfigurement."

¹² The no-fault act was amended effective June 11, 2019; however, we rely on the pre-amendment version in effect during the course of these proceedings in deciding this case.

MCL 500.3135(1). "'Serious impairment of a body function' means an objectively manifested impairment of an important body function that affects the person's general ability to lead his or her normal life." MCL 500.3135(5). To demonstrate a serious impairment of body function, a plaintiff must show: "(1) an objectively manifested impairment (2) of an important body function that (3) affects the person's general ability to lead his or her normal life." McCormick v Carrier, 487 Mich 180, 191; 795 NW2d 517 (2010). As to the first prong, a plaintiff must show that injuries resulting from the accident were "evidenced by actual symptoms or conditions that someone other than the injured person would observe or perceive as impairing a body function." Id. "[T]he aggravation or triggering of a preexisting condition can constitute a compensable injury." Fisher v Blankenship, 286 Mich App 54, 64; 777 NW2d 469 (2009). See also Wilkinson v Lee, 463 Mich 388, 395; 617 NW2d 305 (2000) ("Regardless of the preexisting condition, recovery is allowed if the trauma caused by the accident triggered symptoms from that condition."). Likewise, a degenerative condition can be exacerbated by subsequent injury such that it constitutes an impairment of a bodily function. Washington v Van Buren County Road Com'n, 155 Mich App 527, 529-530; 400 NW2d 668 (1986). The question here is whether plaintiff suffered an aggravation or a triggering of the symptoms associated with the preexisting condition because of the accident. Fisher, 286 Mich App at 63.

"Causation is an issue that is typically reserved for the trier of fact unless there is no dispute of material fact." *Patrick v Turkelson*, 322 Mich App 595, 616; 913 NW2d 369 (2018) (citation omitted). Although our courts are cognizant that motions for summary disposition "implicate considerations of the jury's role to decide questions of material fact[,] . . . litigants do not have any right to submit an evidentiary record to the jury that would allow the jury to do nothing more than guess." *Skinner v Square D Co*, 445 Mich 153, 174; 516 NW2d 475 (1994).

"To establish proximate cause, the plaintiff must prove the existence of both cause in fact and legal cause." *Patrick*, 322 Mich App at 616, quoting *Weymers v Khera*, 454 Mich 639, 647; 563 NW2d 647 (1997). "To be adequate, a plaintiff's circumstantial proof must facilitate reasonable inference of causation, not mere speculation." *Skinner*, 445 Mich at 164. Our Supreme Court has explained "the basic legal distinction between a reasonable inference and impermissible conjecture with regard to causal proof:

'As a theory of causation, a conjecture is simply an explanation consistent with known facts or conditions, but not deducible from them as a reasonable inference. There may be 2 or more plausible explanations as to how an event happened or what produced it; yet, if the evidence is without selective application to any 1 of them, they remain conjectures only. On the other hand, if there is evidence which points to any 1 theory of causation, indicating a logical sequence of cause and effect, then there is a juridical basis for such a determination, notwithstanding the existence of other plausible theories with or without support in the evidence.'" [*Id.* at 164, quoting *Kaminski v Grand Trunk WR Co*, 347 Mich 417, 422; 79 NW2d 899 (1956).]

"[A]t a minimum, a causation theory must have some basis in established fact." *Id.* at 164. "[A] basis in only slight evidence is not enough." *Id.* It is not "sufficient to submit a causation theory that, while factually supported, is, at best, just as possible as any other theory." *Id.* Instead, "the plaintiff must present substantial evidence from which a jury may conclude that more likely than

not, but for the defendant's conduct, the plaintiff's injuries would not have occurred." *Id.* at 164-165.

In this case, plaintiff asserts that the circuit court erred in granting summary disposition on the causation question after it determined Dr. Seidel's opinion that this accident caused plaintiff's disc herniation was unreliable.

Initially, plaintiff mentions his award of SSD benefits and his workers' compensation settlement, which presumably support a causal connection. The circuit court, however, rejected plaintiff's reliance on the outcome of the separate SSD legal proceeding as it neither involved a determination that this accident caused plaintiff's herniated disc or his aggravated his back condition. We agree. The same is true of plaintiff's worker's compensation settlement. Cf. Chouman v Home Owners Ins Co, 293 Mich App 434, 438-439; 810 NW2d 88 (2011) (recognizing that "settlements may be motivated by a great many possible considerations unrelated to the substantive merits of a claim.").

Plaintiff also contends that our recent decision in *Patrick* controls the outcome here. It does not.

In *Patrick*, the defendant's vehicle turned into the driver's side of the plaintiff's vehicle, where the plaintiff was seated. *Patrick*, 322 Mich App at 599. Multiple air bags deployed within the plaintiff's vehicle; one of them struck the left side of the plaintiff's face, including her ear. *Id*. The plaintiff described the sound of those "air bags as an 'explosion.' " In the aftermath of the accident, the plaintiff "was examined in the emergency room where she reported experiencing sharp pain in her left ear, ringing in both ears, and a headache." *Id*. The plaintiff sought professional evaluation, including with a doctor specializing "in otology and neurotology who treat[ed] patients with ear disorders and hearing loss." *Id*. at 599-600. The doctor "testified that peer-reviewed scientific literature includes reports of hearing loss and tinnitus following air bag deployment due to the sound generated." *Id*. at 601. The plaintiff testified about continued hearing loss in her left ear and its detrimental impact on her life. *Id*. at 602.

The *Patrick* plaintiff sued the driver of the other car, who moved for summary disposition, contending that she had not suffered a serious impairment of body function and could not prove causation. *Id.* at 604. The circuit court granted the defendant's motion because the plaintiff failed to establish a serious impairment of body function and did not reach the causation question. *Id.* This Court reversed, concluding that the evidence was sufficient to present a jury the question of the serious impairment issue. *Id.* at 607-615. Even though the circuit court had not addressed the parties' causation arguments, this Court did so because the defendant argued, as an alternate ground for affirmance, that causation was lacking. *Id.* at 615-616. Recognizing "that hearing loss can occur as part of the aging process" and that the plaintiff had had no pre-accident hearing test, this Court concluded that, viewing the evidence in the light most favorable to the plaintiff, her lack of pre-accident hearing issues and her doctor's testimony about "peer-reviewed literature" created a jury question on causation. *Id.* at 619.

¹³ See footnote 4.

In this case, on the other hand, Dr. Seidel readily admitted that there was no scientific literature supporting his conclusion that a low-impact accident caused plaintiff's disc herniation. This alone distinguishes *Patrick*. And Dr. Seidel recognized that there was arthritic degeneration of plaintiff's spine that, in his opinion, was not attributable to this accident. Dr. Seidel admitted that he did not know if he would be able to sort out which of plaintiff's injuries were attributable to this accident with review of the CT images he obtained, while also maintaining his opinion that the large protrusion of disc material resulted from trauma. And when asked what fact he would point to in order to dispute Dr. Sidhu's opinion that plaintiff's disc herniation was more chronic in nature, Dr. Seidel had "no answer," saying that he had answered the question several times. Finally, while recognizing that disc herniation occurs without any trauma at all, Dr. Seidel remained steadfast in his opinion that plaintiff's disc herniation resulted from this accident, even assuming it had been a low-impact bump, given plaintiff's age and self-reported history of no prior back problems.

Plaintiff is correct that here, as in *Patrick*, there were no pre-accident images of plaintiff's spine. 14 322 Mich App at 619. In direct contrast to *Patrick*, however, plaintiff here did not immediately report an injury and did not believe that he struck his body on any part inside the bus. Plaintiff did not lose consciousness, suffered no bruising, repeatedly reported being uninjured, and felt "okay" after the accident. Plaintiff testified that he only felt the impact a "little bit" because the bus was "heavy." And, when specifically asked whether he "physically move[d] at all as a result of the impact," plaintiff's sole response was that his "foot came off the brake pedal" and that the bus rolled forward a few feet. After going to the clinic, not for any injury, but for a mandatory drug and urine test, plaintiff arrived home and continued to feel "fine." It was not until the following morning that plaintiff felt back pain.

Importantly, Dr. Seidel testified that disc herniation occurs with and without trauma. In fact, Dr. Seidel recognized that disc herniation could be caused by every day activities, like coughing, sneezing, or placing a child into a car.

In light of these potential alternatives, we turn to the next question—the propriety of the circuit court's ruling that Dr. Seidel's testimony regarding causation was inadmissible.

B. ADMISSIBILITY OF EXPERT TESTIMONY

We review for an abuse of discretion a circuit court's decision regarding the admission of evidence. *Edry v Adelman*, 486 Mich 634, 639; 786 NW2d 567 (2010). "An abuse of discretion occurs when the trial court chooses an outcome falling outside the range of principled outcomes."

¹⁴ On appeal, defendant contends that plaintiff "neglected" to inform Dr. Seidel that plaintiff had "had an x-ray of his lumbar spine just several years prior due to back pain." While there is some indication in the record that plaintiff's former long-time employer failed to timely respond to defendant's subpoena for records, defendant's contention is unsupported by citation to the record, and we find no such mention of this x-ray in the record. MCR 7.210(A)(1). Therefore, we decline to consider this information.

Id. "'[T]he proponent of the evidence bears the burden of establishing . . . admissibility[.]' " *Id.*, quoting *People v Crawford*, 458 Mich 376, 386 n 6; 582 NW2d 785 (1998).

MRE 702 governs the admissibility of expert witness testimony. *Edry*, 486 Mich at 639. It provides:

If the court determines that 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 if (1) the testimony is based on sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

MRE 702 incorporates standards of reliability derived from *Daubert v Merrell Dow Pharms, Inc*, 509 US 579; 113 S Ct 2786; 125 L Ed 2d 469 (1993). *Gilbert v DaimlerChrysler Corp*, 470 Mich 749, 781; 685 NW2d 391 (2004). "[T]he rule's reference to 'knowledge' 'connotes more than subjective belief or unsupported speculation.' " *Gilbert*, 470 Mich at 781, quoting *Daubert*, 509 US at 590. Indeed, "[c]areful vetting of all aspects of expert testimony is especially important when an expert provides testimony about causation." *Id.* at 782.

"Under MRE 702, it is generally not sufficient to simply point to an expert's experience and background to argue that the expert's opinion is reliable and, therefore, admissible." *Edry*, 486 Mich at 642. "A lack of supporting literature, while not dispositive, is an important factor in determining the admissibility of expert witness testimony." *Elher v Misra*, 499 Mich 11, 23; 878 NW2d 790 (2016).

In addition to considering MRE 702 in determining the reliability of an expert's testimony, the trial court must consider MCL 600.2955(1). "MCL 600.2955(1) requires the court to determine whether the expert's opinion is reliable and will assist the trier of fact by examining the opinion and its basis, including the facts, technique, methodology, and reasoning relied on by the expert[.]" *Elher*, 499 Mich at 23. MCL 600.2955(1) sets forth the following factors to be considered in making this determination:

- (a) Whether the opinion and its basis have been subjected to scientific testing and replication.
- (b) Whether the opinion and its basis have been subjected to peer review publication.
- (c) The existence and maintenance of generally accepted standards governing the application and interpretation of a methodology or technique and whether the opinion and its basis are consistent with those standards.
 - (d) The known or potential error rate of the opinion and its basis.
- (e) The degree to which the opinion and its basis are generally accepted within the relevant expert community. As used in this subdivision, "relevant expert

community" means individuals who are knowledgeable in the field of study and are gainfully employed applying that knowledge on the free market.

- (f) Whether the basis for the opinion is reliable and whether experts in that field would rely on the same basis to reach the type of opinion being proffered.
- (g) Whether the opinion or methodology is relied upon by experts outside of the context of litigation. [MCL 600.2955(1)(a) through (g).]

Even so, not every factor identified in MCL 600.2955 is relevant to every case. *Elher*, 499 Mich at 27.

Where a plaintiff relies upon the testimony of an expert to prove factual causation, "'there must be facts in evidence to support the opinion testimony of an expert.' "Skinner, 445 Mich at 173, quoting Mulholland v DEC Int'l Corp, 432 Mich 395, 411; 442 NW2d 340 (1989). "It is axiomatic in logic and in science that correlation is not causation." Craig v Oakwood Hosp, 471 Mich 67, 93; 684 NW2d 296 (2004). Courts must remain wary of post hoc ergo propter hoc reasoning. Lowery v Enbridge Energy Limited Partnership, 500 Mich 1034; 898 NW2d 906 (2017) (where an expert testified that an oil spill caused the plaintiff's injury because it followed the spill and the plaintiff had not had any problem before the spill, the circuit court properly granted summary disposition). Stated otherwise, showing only a temporal relationship is generally insufficient to establish a causal relationship. See e.g., West v Gen Motors Corp, 469 Mich 177, 186; 665 NW2d 468 (2003).

Plaintiff first argues that the circuit court misapplied MRE 702 and MCL 600.2955 because Dr. Seidel's experience, knowledge, and expertise rendered his testimony reliable. But, as already mentioned, "it is generally not sufficient to simply point to an expert's experience and background to argue that the expert's opinion is reliable and, therefore, admissible" under MRE 702. *Edry*, 486 Mich at 642. Furthermore, the "lack of supporting literature, while not dispositive, is an important factor in determining the admissibility of expert witness testimony." *Elher*, 499 at 23. Here, despite Dr. Seidel's credentials, which were recognized by the circuit court, Dr. Seidel's conclusion was unsupported by peer-reviewed medical literature.

And even as plaintiff recognizes that a temporal connection alone is insufficient to establish causation, he asserts that his history of asymptomatic back pain and Dr. Seidel's later medical testing confirm the existence of a herniated disc or back pain, or both, shortly after the accident. Again, the fact that there is an injury or aggravation after an accident does not establish that the accident caused either. *Lowery*, 500 Mich at 1034; *Craig*, 471 Mich at 93; *West*, 469 Mich at 186.

Plaintiff further asserts that it was the circuit court, not Dr. Seidel, that misconstrued the facts underlying this accident. But the circuit court began by appropriately recognizing that Dr. Seidel's opinion regarding causation was rooted in plaintiff's self-reported history that he had no back pain before the accident with the onset of symptoms commencing the next morning. Regarding plaintiff's history, the circuit court noted that plaintiff did not go into detail about the accident and this was confirmed during Dr. Seidel's deposition. The circuit court also referenced plaintiff's failure to mention his involvement in the August 2014 accident, which would have

prompted some follow-up questions, but, ultimately, not changed Dr. Seidel's opinion regarding causation.

The circuit court also indicated that Dr. Seidel assumed that the force involved in the instant accident was fairly significant because defendant's vehicle had damage. While Dr. Seidel testified that vehicles involved in accidents with buses "lose and they show the damage," we agree that review of the record reveals no assumption on Dr. Seidel's part that a fairly significant force was involved in this accident due to the damage to defendant's Jeep. Regardless, review of Dr. Seidel's testimony reveals that he questioned the veracity of the defendant's accident reconstruction regarding the g forces involved in this accident as well as the estimated impact velocity change of 2 to 3.7 mph to plaintiff's bus from this accident. And, despite Dr. Seidel's testimony that plaintiff simply disclosed the fact that he had been in an accident without sharing additional details, Dr. Seidel also testified that "[t]he only history I have is that he was in a bus/auto accident trauma event" and "[t]he history was that there was trauma driving a bus on 9-10-14 [sic September 9, 2014], hit from behind[.]" Plaintiff's initial CT scan, ordered by Dr. Seidel, also reflects a history that plaintiff was in a "[m]otor vehicle collision." All of this suggests that Dr. Seidel believed that significant force was involved in this accident.

The circuit court next mentioned Dr. Seidel's assumption that plaintiff was unrestrained when the accident occurred. We agree that the record reflects that Dr. Seidel initially, and incorrectly, assumed that plaintiff was unrestrained because, in Dr. Seidel's experience "dealing with bus drivers . . . , they are not restrained." With that assumption, Dr. Seidel opined "there may have been a translation of [plaintiff's] body over a distance when the accident occurred." Before Dr. Seidel's deposition, however, plaintiff's counsel informed Dr. Seidel that plaintiff had earlier testified that he "was leaning forward and attempting to pull the parking brake of the bus." Confronted with this scenario, Dr. Seidel opined that plaintiff "had more of a distance translation of the torso versus the lower half of the body." Dr. Seidel later recognized that "he did not have [the] specifics of [plaintiff's] body position" as part of plaintiff's history and learned of plaintiff's actual body position just before he was deposed.

The circuit court determined that Dr. Seidel's assumptions about how plaintiff's injury occurred—plaintiff was unrestrained and leaning forward, resulting in a distance translation of the torso versus the lower half of plaintiff's body—were "contrary to the established fact that the [plaintiff] was belted into his seat." Plaintiff contends that Dr. Seidel, not the circuit court, better understood plaintiff's position during the accident. But plaintiff testified that he was wearing a shoulder harness and lap belt; the Undersheriff's testimony along with the police report confirmed this fact. Plaintiff also testified that he was leaning forward, and, as the circuit court rightly recognized, plaintiff testified the only movement caused by the accident was his foot moving off the brake. Plaintiff described no other physical movement of his body as he was seated in the driver's seat, leaning forward while restrained by his shoulder belt. Plaintiff never reported being flung forward or backward due to the impact or injured in any manner. As such, the circuit court determined that Dr. Seidel's assumption that plaintiff otherwise suffered trauma to his body,

¹⁵ See footnote 8.

including his back, that caused a herniated disc was speculative. *Skinner*, 445 Mich at 173, quoting *Mulholland*, 432 Mich at 411 (stating that when a plaintiff relies upon the testimony of an expert to prove factual causation, "'there must be facts in evidence to support the opinion testimony of an expert'"). ¹⁶

Plaintiff also argues that the circuit court elevated the lack of medical literature to "a litmus test" for the admission of expert medical testimony. We disagree. The circuit court appropriately relied upon the lack of literature as a factor in addition to Dr. Seidel's incorrect assumptions or speculation about the facts surrounding this accident, namely that plaintiff was unrestrained and that trauma occurred. *Elher*, 499 Mich at 23.

Accordingly, we conclude that the circuit court did not abuse its discretion in excluding Dr. Seidel's testimony and opinion regarding causation or in granting summary disposition. And because plaintiff otherwise failed to produce admissible evidence to create a material question of fact to demonstrate that his herniated disc or aggravation of his degenerative spinal conditions was causally related to the accident, the trial court properly granted defendant summary disposition.

Indeed, even if the circuit court had abused its discretion in excluding Dr. Seidel's opinion regarding causation, this record demonstrates that defendant would nevertheless be entitled to summary disposition. Dr. Seidel candidly recognized that plaintiff's herniated disc could have resulted from trauma or no trauma at all. Because a litigant does "not have any right to submit an evidentiary record to the jury that would allow the jury to do nothing more than guess," *Skinner*,

¹⁶ It appears that Dr. Seidel's testimony may have led to the circuit court to conclude that evidence of a broken bone was required before a trauma-related disc herniation. Important to this point is that the x-ray taken the morning after the accident revealed that plaintiff suffered no broken bones.

During Dr. Seidel's deposition, he testified that plaintiff did not break any bones or tear any ligaments. And, in the course of addressing whether any literature supported Dr. Seidel's opinion that a low-impact trauma could cause a herniated disc, Dr. Seidel volunteered that "[t]he literature says to have post[-]traumatic disc herniation requires breakage of bone and separation of the disc from the bone[.]" Throughout his deposition, Dr. Seidel repeatedly characterized plaintiff's disc herniation as trauma or trauma-related or post-traumatic.

On appeal, plaintiff attaches a peer-reviewed article, that was not part of the record below and cannot be considered by this Court. *Sherman v Sea Ray Boats, Inc*, 251 Mich App 41, 56; 649 NW2d 783 (2002); see also MCR 7.210(A)(1). Based on this article, plaintiff explains that Dr. Seidel was referencing literature pertaining to a lumbar disc herniation involving endplate junction failure, not an annulus fibrosus failure, which occurred here.

To the extent that the circuit court relied upon Dr. Seidel's testimony, its determination regarding the admissibility of Dr. Seidel's causation opinion did not depend solely on this point. Thus, the circuit court reached the right result, albeit, in part, for a wrong reason. *Southfield Ed Ass'n*, 320 Mich App at 374, quoting *Gleason*, 256 Mich App at 3.

445 Mich at 174, we conclude that summary disposition was appropriate on this alternate ground as well. *Southfield Ed Ass'n*, 320 Mich App at 374, quoting *Gleason*, 256 Mich App at 3.

Affirmed.

/s/ Michael F. Gadola /s/ Anica Letica

STATE OF MICHIGAN COURT OF APPEALS

MICHAEL H. BERNARDI,

UNPUBLISHED

Plaintiff-Appellant,

TONYA MELYNDA ROCK,

v

No. 347134 Lapeer Circuit Court LC No. 17-051096-NI

Before: GLEICHER, P.J., and GADOLA and LETICA, JJ.

Defendant-Appellee.

GLEICHER, P.J. (dissenting).

Let's say you were trying to hang a picture and you hit your thumb with the hammer. The blow was somewhat glancing and not terribly hard, but you have arthritis and the thumb throbbed for a few minutes. Ice helped. The next day the pain was excruciating, so you visited your family doctor. He recommended Advil and immobilization. The pain persisted and you saw a specialist. An x-ray revealed a fracture. The specialist told you the hammer blow likely did it. He explained that the "temporal connection" between the hammer blow and your pain was a compelling fact.

Would a reasonable person agree that you probably broke your thumb with the hammer? Would a reasonable person find the specialist's opinion that the hammer blow caused the fracture "speculative?" Would a reasonable person be "guessing" by concluding that the hammer trauma broke the bone? Maybe your arthritis made your thumb more susceptible to breaking. Maybe a previous injury to the thumb weakened the surrounding ligaments. But the specialist's opinion hardly qualifies as unreliable, hypothetical, or built on thin air.

This case is about an equally clear-cut cause-and-effect relationship. Unfortunately, the majority has tied itself up in legal knots trying to avoid the obvious—that a specialist's causation opinion predicated in part on a patient's report of recent trauma is sufficiently buttressed by "facts" and is the product of reliable principles and methods. Because the majority has misapplied the legal standards governing expert testimony, I respectfully dissent.

Plaintiff Michael Bernardi drove a school bus for the Lapeer Community Schools. Late one afternoon he stopped the bus to drop off a student, shifting into neutral. Bernardi had one foot on the brake pedal and reached with his right arm to pull the "park brake" into place before opening the bus door. While looking down at her lap, defendant Tonya Rock hit the back of the school bus with her Jeep Laredo. She estimated that she was traveling 20 miles per hour when she saw the bus and applied her brakes. On impact, Bernardi's foot came off the brake pedal and the bus rolled "ten feet or so." The Jeep sustained about \$3,500 in damage.

Bernardi denied any injury at the scene. The next morning, however, he felt "terrible" and could not get out of bed. Pain radiated down the back of his leg and into one buttock. He saw a physician who prescribed rest and pain medication. Bernardi never had back pain before. During his 60-plus years of life, he had never consulted a doctor for a back problem or received any backpain treatment, despite having spent 35 of those years in an auto plant working as a hi-lo driver. This evidence is unrefuted.

Over the next six weeks, conservative medical therapy did not alleviate Bernardi's unrelenting back pain, which at times radiated into his foot. His family doctor referred him to Dr. Geoffrey Seidel, a board-certified specialist in Physical Medicine and Rehabilitation. Dr. Seidel obtained a history from Bernardi, and learned that the back pain began less than 24 hours after an accident in which the bus Bernardi was driving was struck from behind. On examination, Dr. Seidel noted that Bernardi had "an antalgic gait, a positive Trendelenburg on the right." Dr. Seidel explained that this meant that Bernardi exhibited a right-sided limp and that pain or weakness caused the gait alteration. Dr. Seidel further noted "hypersensitivity in the L5 nerve root distribution." Dr. Seidel's "impression[]" was that Bernardi had sustained a "work-related bus driving accident" and had "low back pain" and "right lumbar radicular symptoms."

Dr. Seidel ordered a CT scan of Bernardi's spine that revealed evidence of chronic spinal stenosis as well as a disc herniation. At the L4-L5 level, the radiologist identified a "[1]arge central/left paracentral disc extrusion with superior migration of disc material resulting in moderate-to-severe central canal stenosis and mass effect upon the cauda equina." The radiologist's impression was "[1]arge disc extrusion at L4-L5 with superior migration of disc material in impingement of the cauda equina."

In other words, Bernardi had long-standing degenerative disease of his back, as well as a ruptured disk, and the disk material was close to an important nerve bundle. This case is about the etiology of the ruptured disk. Dr. Seidel testified that the "very large disc protrusion" seen on the scan was "not something I typically see in lumbar spinal stenosis cases, and there was trauma related to that." The defense contends that the timing of Bernardi's pain was a mere coincidence, the cause of the herniation was his underlying spinal stenosis, and that the accident the day before the symptoms began had nothing to do with it.

Dr. Seidel treated Bernardi's back pain conservatively. When it did not improve, Dr. Seidel referred Bernardi to a surgeon. Dr. Seidel's referral letter noted: "I consider this disc herniation to be work related."

After reviewing Bernardi's CT scan, the surgeon confirmed the presence of a herniated disc. He performed a laminectomy and removed the disk fragments. Despite the surgery and physical therapy, Bernardi did not obtain much relief. He consulted other physicians who agreed that he was disabled due to his back pain and associated neurological symptoms. Additional back surgery was recommended. Bernardi then filed this third-party no-fault action against Rock. He underwent spinal fusion surgery while this case was pending.

II

The circuit court granted summary disposition to Rock, ruling that Dr. Seidel's testimony linking the accident and Bernardi's herniated disk was inadmissible because it was "unreliable" under MRE 702. The majority affirms, holding that the trial court did not abuse its discretion because Dr. Seidel's testimony was "unsupported by peer-reviewed medical literature," a "temporal connection alone is insufficient to establish causation," and Dr. Seidel erroneously assumed that Bernardi had not been wearing a seat belt at the time of the accident. The circuit court "appropriately" relied on these facts, the majority holds, to exclude Dr. Seidel's testimony.

The majority and the circuit court have misapplied MRE 702, and in so doing the circuit court abused its discretion. Dr. Seidel is an exceptionally well qualified specialist in spinal disease. His expert opinion rested on a solid factual foundation consisting of Bernardi's medical history, his physical examination, and the results of several objective radiologic and electrophysiological tests. Dr. Seidel employed differential diagnosis analysis in reaching his causation opinion, a methodology universally used by physicians to determine the etiology of a patient's disease. "In the medical context, differential diagnosis is a common method of analysis, and federal courts have regularly found it reliable under *Daubert*." Bitler v AO Smith Corp, 400 F3d 1227, 1237 (CA 10, 2004). The reasons offered by the circuit court for excluding Dr. Seidel's testimony (and affirmed by the majority) are either irrelevant to the inquiry or go to the weight of his testimony, not its admissibility.

"MRE 702 incorporates the standards of reliability that the United States Supreme Court articulated in *Daubert*[.]" *Elher v Misra*, 499 Mich 11, 22; 878 NW2d 790 (2016). A circuit court's gatekeeping function focuses on an examination of the expert's *methodology* and the principles animating it. *Daubert v Merrell Dow Pharm, Inc*, 509 US 579, 595; 113 S Ct 2786; 125 L Ed 2d 469 (1993). The reliability standard "entails a preliminary assessment of whether the reasoning or methodology is scientifically valid." *Id.* 592-593. Reliability depends "solely on principles and methodology, not on the conclusions that they generate." *Id.* at 595.

MRE 702 focuses on four aspects of an expert's proposed testimony: (1) whether the expert is qualified to testify "by knowledge, skill, experience, training, or education," (2) whether the proposed testimony "is based on sufficient facts or data;" (3) whether "the testimony is the product of reliable principles and methods," and (4) whether "the witness has applied the principles and methods reliably to the facts of the case." Dr. Seidel's testimony fulfills these requirements. The circuit court's decision to the contrary, echoed by the majority, confuses the task of assessing *reliability* with the job of the jury—weighing the evidence and deciding which side should prevail.

¹ Daubert v Merrell Dow Pharm, Inc, 509 US 579; 113 S Ct 2786; 125 L Ed 2d 469 (1993).

Whether the expert is persuasive is not a legal question. Nor does the existence of evidence that might challenge the soundness of the expert's ultimate conclusion render the opinion legally inadmissible.

Dr. Seidel's expert qualifications are rock solid. He is board certified in Physical Medicine and Rehabilitation and achieved an additional board certification from the American Academy of Neuromuscular and Electrodiagnostic Medicine. He has practiced in these fields for more than a quarter century, and serves as a clinical professor in the medical schools of both Michigan State and Wayne State Universities. Dr. Seidel is the medical director of the spine clinic at Henry Ford Macomb Hospital. His regular practice includes patients with brain and spinal injuries, stroke, and musculoskeletal problems. He also reads the radiologic studies he orders and performs and interprets his own electrodiagnostic studies. Dr. Seidel is fully qualified to give an expert opinion in this case. The defense has not offered a physician witness in opposition to Dr. Seidel.

Dr. Seidel testified that he formed his opinion that trauma—the bus accident—caused Bernardi's disk herniation based on Bernardi's history, his physical examination, and the objective studies he reviewed (a CT scan and an EMG). Bernardi reported that he never experienced back pain before being involved in the accident underlying this case. He did not report any other trauma that might have caused the rupture.² Within 24 hours of the bus accident, he experienced debilitating back pain. He saw a physician and reported the pain within that same time frame. When Dr. Seidel examined Bernardi he considered several possible diagnoses, but suspected a disc herniation, as the symptoms had been triggered by trauma and Bernardi exhibited objective signs of that condition: he limped and had a positive Trendelenburg sign. Dr. Seidel investigated this potential diagnosis by personally performing an EMG. He also reviewed the images of Bernardi's CT scan. This data confirmed "there was an anatomical abnormality that was correlating [with] the symptoms that were down his leg." Dr. Seidel testified:

Based upon the timing, I consider the anatomical findings on the CT scan image to correlate with the timing of onset of symptoms. And I have the benefit of physical exam findings, electrodiagnostic exam findings that I interpreted all in real time to say, in my view, this is all related to that incident.

The "facts or data" considered by Dr. Seidel were unquestionably sufficient under MRE 702 to form a medical opinion regarding the causation of disease, fulfilling the second aspect of MRE 702. The same type of facts or data are routinely relied upon by physicians; the defense has not suggested that any *relevant* facts were missing.

Based on Bernardi's history, physical examination, and his review of the studies, Dr. Seidel concluded that Bernardi's pain was caused by the ruptured disk, which in turn was caused by trauma. Contrary to the majority's view, there was nothing "speculative" or "unreliable" about this methodology. Dr. Bernardi engaged in the differential diagnosis method. This method

accident. This minor accident is a quintessential red herring, a diversion utterly without relevance.

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² As discussed below, the record contains no evidence that the minor accident predating the bus accident, mentioned by the majority and cited by the circuit court, caused any injury or damage to Bernardi or anyone else. Bernardi did not experience pain or even consult a physician after that

represents "a *standard* diagnostic tool used by medical professionals to diagnose the most likely cause or causes of illness, injury and disease." *Glaser v Thompson Med Co, Inc*, 32 F3d 969, 978 (CA 6, 1994) (emphasis added). "Differential diagnosis, or differential etiology, is a standard scientific technique of identifying the cause of a medical problem by eliminating the likely causes until the most probable one is isolated." *Westberry v Gislaved Gummi AB*, 178 F3d 257, 262 (CA 4, 1999). "[T]he overwhelming majority of the courts of appeals that have addressed the issue have held that a medical opinion on causation based upon a reliable differential diagnosis is sufficiently valid to satisfy the first prong of the Rule 702 inquiry." *Id.* at 263. See also *People v McKewen*, 326 Mich App 342, 351; 926 NW2d 888 (2018) (characterizing differential diagnosis as "a well-recognized process"); *Alder v Bayer Corp, AGFA Div*, 2002 UT 115; 61 P3d 1068, 1084 (2002) ("[D]ifferential diagnosis is one of the oldest and most widely used and recognized of all the methods. Historically and even presently, in many instances, differential diagnosis has been the only method available."). Because the differential diagnosis method is regularly used by physicians to determine the cause of a patient's disease, Dr. Seidel's testimony is "the product of reliable principles and methods," fulfilling the third prong of MRE 702.

Contrary to the majority's suggestion that Bernardi's "self-reported history" of pain rendered it suspect, Dr. Seidel's reliance on a patient's history is unobjectionable evidentially and legally.

A reliable differential diagnosis typically, though not invariably, is performed after "physical examinations, *the taking of medical histories*, and the review of clinical tests, including laboratory tests," and generally is accomplished by determining the possible causes for the patient's symptoms and then eliminating each of these potential causes until reaching one that cannot be ruled out or determining which of those that cannot be excluded is the most likely. [*Hardyman v Norfolk & Western R Co*, 243 F3d 255, 260-261 (CA 6, 2001) (quotation marks and citation omitted, emphasis added).]

Physicians rely on medical histories as a matter of course. No evidence supports that Bernardi's history was inaccurate. No law supports that Dr. Seidel's reliance on that history was improper or rendered his opinion unreliable.

Dr. Seidel formulated a causation opinion by applying the differential diagnostic method used by doctors who diagnose and treat back pain. The patient's history revealed no pain before the accident, and extreme, debilitating back pain within 24 hours afterward. The physical examination and objective diagnostic studies revealed the presence of a ruptured disk. These facts, taken together, are sufficient to serve as the foundation for a medical opinion. No evidence suggests that Dr. Seidel applied the differential diagnosis method improperly. No evidence suggests that the central premise of Dr. Seidel's opinion—that trauma can rupture an intervertebral disc—is incorrect scientifically. Accordingly, his methodology was inherently reliable. MRE 702 requires nothing more than this showing.

It bears emphasis that ruptured disks are not rare, and that trauma is a well-recognized cause of disk rupture. A cursory review of Michigan caselaw confirms these facts, and reflects that even small forces can cause a disc rupture. See, e.g., *Samhoun v Greenfield Constr Co, Inc*, 163 Mich App 34, 37; 413 NW2d 723 (1987) (twisting to avoid being hit by a piece of steel); *Adas*

v Ames Color-File, 160 Mich App 297, 299; 407 NW2d 640 (1987) (disc ruptured while moving a filing unit); *Woods v Sears, Roebuck & Co*, 135 Mich App 500, 505; 353 NW2d 894 (1984) (disc ruptured by a fall at work; symptoms did not emerge until five months after the fall).

So how did we get here? Why is there any dispute at all about the reliability of Dr. Seidel's opinion? While it is true that Bernardi had preexisting spinal stenosis, no one disputes that the degenerative changes in Bernardi's back were, until the accident, entirely asymptomatic. The spinal changes never restricted Bernardi's activities, and he never so much as took an Advil to treat his degenerative spinal disease. The aggravation of a preexisting condition can create a compensable injury under the no-fault act, as the majority concedes. See *Fisher v Blankenship*, 286 Mich App 54, 63; 777 NW 2d 469 (2009).

The defense contends that the bus accident was too minor to generate the forces required to rupture a disk. What evidence did the defense present on this score, you might ask? Good question. Rock presented no testimony from a physician disputing Dr. Seidel.³ None. The defense presented no peer-reviewed literature calling Dr. Seidel's opinion into question. None. Rather, the defense relied on the report of an accident reconstructionist, John Bethea, who concluded that the forces involved in the accident were minimal. He estimated the bus's velocity changed "approximately 2.0 to 3.7 mph" due to the impact, and opined that "[i]mpact tests using human subjects indicate that velocity changes within this range are below levels associated with injuries."

Bethea's qualifications are unknown; they are not described in the report or the record. Bethea's report states that he was not provided with Bernardi's medical records. He averred that his conclusions were "given within a reasonable degree of *engineering* probability and certainty;" obviously, as a nonphysician, Bethea is unqualified to render medical opinions of any sort, much less regarding causation. He cited no literature or other support for his opinion that the velocity change he believed to have been involved in the accident was insufficient to cause Bernardi's ruptured disk.

Bethea's report was not accompanied by an affidavit and therefore should not have been considered by the circuit court. See MCR 2.116(G)(6). But even ignoring that defect, the report is not admissible regarding *medical* causation, as it does not come close to satisfying the requirements of MRE 702. The circuit court's consideration of this report as causation evidence, standing alone, qualifies as an abuse of discretion. As a gatekeeper under MRE 702, the circuit court was charged with screening expert qualifications as well as the reliability of expert opinion, regardless of which side offered it. Bethea, an engineer who never reviewed a single page of Bernardi's medical record, is patently unqualified to testify regarding the causation of Bernardi's ruptured disc. See *Gilbert v DaimlerChrysler Corp*, 470 Mich 749, 788; 685 NW2d 391 (2004) ("In order for Mr. Hnat to provide an admissible opinion interpreting medical records for purposes other than those related to the expertise of social workers, plaintiff bore the burden of showing that Mr. Hnat was qualified by knowledge, skill, experience, training, or education in medicine. Given the absence of such evidence, plaintiff failed to carry the burden of establishing the admissibility

³ Dr. Roth, the defense physician who examined Bernardi, rendered an opinion focused on Bernardi's current condition, not the cause of the herniated disc, and concluding that he had made a full recovery. The omission of a causation opinion speaks volumes.

of Mr. Hnat's medical opinions, regardless of the admissibility of the records that ostensibly informed this opinion."). The circuit court not only considered Bethea's report as medical causation evidence, it *relied* on it to exclude Dr. Seidel's opinion. I cannot conceive of a more obvious *Daubert* error.

Given that the defense presented no admissible evidence calling Dr. Seidel's testimony into question, a *Daubert* analysis was unnecessary and inappropriate. While judges should act as gatekeepers when presented with potentially questionable scientific evidence, there was nothing questionable, novel, or shaky about Dr. Seidel's methodology. His was a medical opinion drawn from a patient's history, physical exam, and imaging studies—routine practice, not "junk science." Dr. Seidel was presented with a reason for the disc rupture—trauma—that all recognize as a potential cause. The defense proposition that the trauma was too slight to cause a herniation might have opened the door to a *Daubert* inquiry had it been accompanied by any admissible medical evidence—but it was not.

In a post-*Daubert* opinion, the United States Supreme Court observed that in ordinary cases, a gatekeeping inquiry may be unnecessary because "the reliability of an expert's methods is properly taken for granted." *Kumho Tire Co, Ltd v Carmichael*, 526 US 137, 152; 119 S Ct 1167; 143 L Ed 2d 238 (1999). This is precisely such a case. The defense offered no scientific basis calling into question the reliability of Dr. Seidel's causation opinion other than that the impact was relatively small, and that Dr. Seidel initially believed (incorrectly) that Bernardi had not been wearing a seat belt. Dr. Seidel was well aware of the circumstances surrounding the impact, including that the bus sustained no damage. Nevertheless, he held steadfast to his opinion, explaining that even a small force, such as a cough or a sneeze, can rupture a disk. No admissible evidence contradicted this. He emphasized that the history of a trauma, combined with the timing of Bernardi's severe symptoms, cemented his view that the two were linked. There is nothing novel, unreliable, unscientific, or improperly speculative about this opinion.

The objective of the requirements encapsulated in MRE 702 "is to ensure the reliability and relevancy of expert testimony. It is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho*, 526 US at 152. The *Daubert* factors "may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert's particular expertise, and the subject of his testimony." *Id.* at 150 (quotation marks omitted). "[A] trial court should consider the specific factors identified in *Daubert* where they are reasonable measures of the reliability of expert testimony." *Id.* at 152. When confronted with a challenge to the admission of expert testimony, the overarching question is not "whether an expert's opinion is necessarily correct or universally accepted. The inquiry is into whether the opinion is rationally derived from a sound foundation." *People v Unger*, 278 Mich App 210, 217; 749 NW2d 272 (2008) (quotation marks and citation omitted).

⁴ As discussed below, the seat belt issue is another red herring.

Dr. Seidel's opinion was reasonable on its face, and was supported methodologically. That is enough to allow its admission. The additional reasons offered by the circuit court and the majority for rejecting it, discussed below, lack legal merit.

Ш

The majority asserts that Dr. Seidel's testimony qualified as unreliable under MRE 702 because Dr. Seidel failed to produce any peer-reviewed literature supporting his opinion, and because "a temporal connection alone is insufficient to establish causation[.]" The majority misunderstands the law.

Dr. Seidel testified that he was unaware of any peer-reviewed literature on the question of how much trauma is necessary to rupture a disc. When confronted with Bethea's opinion that a low-velocity accident such as this one could not cause "the damage to Mr. Bernardi's spine that he is alleging in this accident," Dr. Seidel responded:

Disc herniations are known to occur without trauma. They are known to occur with trauma.

There is no literature describing how much velocity is required to herniate a disc in this situation. *There is no literature that supports that*.

So whether a 2.0 to 3.7 velocity change in an elderly male with underlying arthritic change is more at risk for disc herniation, it appears it is.

Dr. Seidel also clarified:

Disc herniations are not immediate. You have to create a crack or a fissure in the disc and then, over ensuing days, the disc material works its way out of the crack or the gap.

I don't see anything unusual about this scenario. [Emphasis added.]

The defense offered no literature—peer-reviewed or otherwise—contradicting Dr. Seidel's statement that the medical literature does not address the subject in dispute. The only evidence before the circuit court is that no such peer-reviewed evidence exists. Absent evidence that published literature speaks to the subject, it was an abuse of discretion for the circuit court to have required Dr. Seidel to produce any.

Daubert itself contradicts the circuit court's view. "Publication (which is but one element of peer review) is not a *sine qua non* of admissibility; it does not necessarily correlate with reliability.... Some propositions, moreover, are too particular, too new, or of too limited interest to be published." Daubert, 509 US at 593 (citations omitted). The United States Supreme Court reemphasized this point in *Kumho*:

Daubert . . . made clear that its list of factors was meant to be helpful, not definitive. Indeed, those factors do not all necessarily apply even in every instance in which the reliability of scientific testimony is challenged. It might not be surprising in a

particular case, for example, that a claim made by a scientific witness has never been the subject of peer review, for the particular application at issue may never previously have interested any scientist. [Kumho, 526 US at 152.]^[5]

Our Supreme Court has made the same point. In *Edry v Adelman*, 486 Mich 634, 641; 786 NW2d 567 (2010), the Court observed that "peer-reviewed, published literature is not always a necessary or sufficient method of meeting the requirements of MRE 702[.]" In that case, "the lack of supporting literature, combined with the lack of any other form of support" for the expert's opinion rendered it unreliable and inadmissible. *Id.* However, in *Edry*, the challenged expert's opinion "was contradicted by both the defendant's oncology expert's opinion *and the published literature on the subject that was admitted into evidence*[.]" *Id.* at 640 (emphasis added). "Moreover," the Supreme Court continued, "no literature was admitted into evidence that supported [the challenged expert's] testimony." *Id.*

Requiring literature when no evidence that such literature exists is an abuse of discretion. "Where there are other factors that demonstrate the reliability of the expert's methodology, an expert opinion should not be excluded simply because there is no literature on point." *Schneider ex rel Estate of Schneider v Fried*, 320 F3d 396, 406 (CA 3, 2003). See also *Dickenson v Cardiac & Thoracic Surgery of Eastern Tenn, PC*, 388 F3d 976, 980 (CA 6, 2004) ("The district court appears to have relied most heavily upon its supposition that a 'purported expert must demonstrate a familiarity with accepted medical literature or published standards in these other areas of specialization in order for his testimony to be reliable in the sense contemplated by Federal Rule of Evidence 702.' This is an erroneous statement of the law. No authority was cited by the district court in support of its above-quoted statement regarding Rule 702, nor have we found any."). If there is literature describing the forces required to herniate a disc in a patient with spinal stenosis, why didn't the defense produce it? No caselaw supports that imaginary literature may suffice to exclude an otherwise admissible expert opinion.

The circuit court and the majority also gravely err by rejecting the evidentiary importance of the temporal connection between the accident and the emergence of Bernardi's symptoms. Citing *Lowery v Enbridge Energy Ltd Partnership*, 500 Mich 1034; 898 NW2d 906 (2017), the majority scolds that "[c]ourts must remain wary of *post hoc ergo propter hoc* reasoning." Continuing in the same vein and citing *West v Gen Motors* Corp, 469 Mich 177, 186; 665 NW2d 468 (2003), the majority asserts that "showing only a temporal relationship is generally insufficient to establish a causal relationship."

The majority's cut-and-paste approach to jurisprudence elides the facts of *this* case and perverts the role of the "temporal relationship" principle. *Lowery* is a toxic tort case, and *West* presented an employment discrimination claim. Neither involved trauma. The "temporal relationship" rubric served different purposes in those case contexts, as a basic review of the cases reveals.

⁵ Here, the larger problem is not "interest" in the subject matter, but likely the difficulty in studying the effects of varying levels of trauma in human subjects, especially those with preexisting spinal disease.

In *Lowery*, the plaintiff alleged that exposure to oil fumes caused vomiting which led, weeks later, to the rupture of his gastric artery. *Lowery v Enbridge Energy Ltd Partnership*, unpublished opinion of the Court of Appeals, issued April, 2, 2015 (Docket No. 319199), slip op at 1. The plaintiff's medical expert had not actually examined the plaintiff, and instead relied only on medical records before offering a causation opinion. *Id.* at 1-2. But the records "and the testimony of plaintiff's treating surgeon indicate that plaintiff did not mention oil fumes at the time of treatment." *Id.* at 1. Critically, the plaintiff failed to produce any evidence that his theory of causation was biologically plausible. The *only* evidence he could point to was that the vomiting started after the exposure. The Supreme Court held that slim reed inadequate, and equivalent to conjecture. *Lowery*, 500 Mich 1034.

Lowery has no bearing on this case. In Lowery, no scientific evidence was presented linking the toxic exposure and the claimed injury. Here, there is no dispute about the fact that trauma can rupture an intervertebral disc. The scientific relationship between trauma and Bernardi's injury is well established—the defense has not claimed otherwise. That symptoms of a disc rupture emerged shortly after the accident provides powerful evidence that the two are related, and Dr. Seidel's reliance on temporal proximity as one strand of his medical opinion was neither inappropriate nor scientifically irrational.⁶

In *Heller v Shaw Indus, Inc*, 167 F3d 146, 158 (CA 3, 1999), the Court explained that a "strong temporal relationship" that is part of "a standard differential diagnosis" represents a sufficient methodology under *Daubert*. The Court continued:

A number of courts, including our own, have looked favorably on medical testimony that relies heavily on a temporal relationship between an illness and a causal event. See, e.g., *Zuchowicz v United States*, 140 F3d 381, 385 (CA 2, 1998); *Kannankeril v Terminix Int'l, Inc*, 128 F3d 802, 809 (CA 3, 1997). The temporal relationship will often be (only) one factor, and how much weight it provides for the overall determination of whether an expert has "good grounds" for his or her conclusion will differ depending on the strength of that relationship. For example, if there was a minor oil spill on the Hudson River on the same day that Heller began experiencing her symptoms in West Chester, Pennsylvania, and she recovered around the time the oil was cleaned up, a proper differential diagnosis and temporal analysis by a well-qualified physician such as Dr. Papano could not possibly lead

⁶ The majority's unthinking rejection of the importance of the temporal relationship between the trauma and Bernardi's symptoms raises an interesting question. If the timing is irrelevant, the majority's position means that the relationship between the disc rupture and the accident was purely coincidental. A man who had never had a single moment of back pain, had never received treatment or consultation for back pain, suddenly ruptured a disc. That this occurred without any relationship to the undisputed trauma he endured the day before is not only remarkable, but incredible. The defense's insistence that the previous accident may have caused it—an accident involving far less force—only highlights the illogical nature of the majority's "temporal proximity" reasoning.

to the conclusion that the oil spill caused Heller's illness.... Conversely, "if a person were doused with chemical X and immediately thereafter developed symptom Y, the need for published literature showing a correlation between the two may be lessened." [Id. at 154 (emphasis added, final citation omitted).]

The majority opinion rests on a fundamentally incorrect premise: that because Dr. Seidel's causation opinion correlates the timing of Bernardi's symptoms with the trauma, it is legally unreliable. No caselaw supports that extreme position. And as my thumb example demonstrates, the majority's view lacks common sense, too.

Dr. Seidel was justified in relying on the temporal relationship between the accident and Bernardi's disc rupture as one element of his differential diagnosis. The circuit court abused its discretion by finding otherwise.⁷

IV

The circuit court cited, and the majority relies on, a plethora of facts which have no bearing on the legal issue at the center of this case: whether the data and methodology underlying Dr. Seidel's opinion testimony were reliable. Before reviewing those facts, it bears mention that MRE 702 appoints the circuit court as a gatekeeper, not a fact finder. The circuit court's gatekeeping role does not extend to resolving disputed fact questions. "The soundness of the factual underpinnings of the expert's analysis and the correctness of the expert's conclusions based on that analysis are factual matters to be determined by the trier of fact, or, where appropriate, on summary judgment." *Smith v Ford Motor Co*, 215 F3d 713, 718 (CA 7, 2000). When credible, qualified experts disagree, a litigant is entitled to have the jury, not the trial court, decide which expert to believe. *Dorn v Burlington Northern Santa Fe R R Co*, 397 F3d 1183, 1196 (CA 9, 2005).

⁷ The majority's citation to West v Gen Motors Corp, 469 Mich 177; 665 NW2d 468 (2003), as support for its "temporal relationship" holding is similarly thoughtless. In West and many other employment cases, direct evidence of discrimination is nonexistent and causation proof depends on the plaintiff's ability to create an inference of causation. Plaintiffs sometimes cite the timing of an adverse employment event as evidence of an illegal motive. But in those cases, too, causation may be properly inferred if an adverse employment action occurs shortly after an employee threatens to report or experiences illegal conduct. West itself specifically cites a case in which a "close temporal relationship supported the plaintiff's claim[.]" West, 469 Mich at 186. See, e.g., Love v RE/MAX of America, Inc, 738 F2d 383, 386 (CA 10, 1984) ("With respect to a causal connection between the protected activity and the adverse employment action, the evidence shows that Liniger fired Love within two hours of receiving her memo containing a raise request and a copy of the Equal Pay Act."). Timing can also work inferentially against a plaintiff. See Carlton v Mystic Transp, Inc, 202 F3d 129, 137 (CA 2, 2000) ("Case law teaches that where the termination occurs within a relatively short time after the hiring there is a strong inference that discrimination was not a motivating factor in the employment decision."). The majority's one-size-fits-all "temporal relationship" reasoning does not apply in employment cases, either.

Part of the *Daubert* inquiry involves an evaluation of whether the data utilized in the expert's methodology is reliable. But this does not mean that a circuit court may pick and choose which underlying—and disputed—*case* facts it chooses to believe. The distinction between disputed case facts and the data underlying an expert's opinion is at the heart of one of the majority's analytical errors.

In the *Daubert* realm, the "data" underlying an expert's opinion generally are derived from studies of a relationship between a toxic exposure and a disease. See, e.g., *Chapin v A & L Parts*, *Inc*, 274 Mich App 122; 732 NW2d 578 (2007) (involving epidemiological statistics concerning exposure to brake dust and the development of mesothelioma); *Nelson v American Sterilizer Co*, 223 Mich App 485; 566 NW2d 671 (1997) (involving animal studies examining whether low-level, chronic exposure to a chemical used to sterilize heat and moisture sensitive medical equipment can cause liver disease). The numbers and statistics involved in those studies—the "data" in *Daubert* parlance—directly related to the reliability of an expert's opinion. As discussed at length in *Nelson*, animal studies may not relate to human experience with a toxin, or may generate a wide range of results. When exposure to a chemical is alleged to have caused an injury, the proof depends on studies containing data that establish the association, the necessary dose, and the time frame over which exposure is required. Without such data, an expert considering a toxic tort claim would have no reliable basis on which to form an opinion.

The "facts" relied on by the circuit court and the majority to bar Dr. Seidel's testimony bear no relationship to the "facts or data" referred to in MRE 702. For example, the majority spills considerable ink discussing a prior accident in which Bernardi was involved and whether Bernardi was wearing a seat belt at the time of the bus accident, and highlighting Bethea's averment that the accident was a "low-energy transfer event." These *case* facts are not relevant to the question presented under MRE 702, and the majority's discussion of them highlights the majority's misapprehension of the gatekeeping role.⁹

The circuit court found that Bernardi's alleged failure to inform Dr. Seidel of an earlier fender-bender type accident was a factor that rendered Dr. Seidel's opinion inadmissible because

⁸ In Nelson v American Sterilizer Co, 223 Mich App 485, 497; 566 NW2d 671 (1997), this Court held:

These findings demonstrate, when viewed together, that different species react differently to exposure to EtO, with some species evidencing adverse effects at lower exposure levels than other species. The lack of capacity for the mouse and rat models to predict how even the guinea pig, rabbit, and monkey models would respond to EtO exposure necessarily undercuts confidence that the mouse and rat models will predict accurately how humans will respond to EtO exposure.

⁹ The majority's misguided effort to discredit Dr. Seidel's testimony is epitomized by its mention that the CT images were "fuzzy," implying that the images did not actually reveal the herniation. The surgeon who operated on Bernardi noted that the CT scan confirmed a herniated disc at L4-L5, and that he found a ruptured disc during surgery. No evidence supports that the CT scan was misread. Why does its alleged "fuzziness" matter?

it was based on "incomplete information." Bernardi testified that the earlier accident was minor and caused no physical consequences. No evidence contradicted these facts. The prior accident was irrelevant to Dr. Seidel and is irrelevant to this case. The circuit court's claim that Bernardi's failure to share information about a nonevent with Dr. Seidel undercut the reliability of Dr. Seidel's opinion is, for lack of a better word, nonsensical.

The seat belt issue is yet another example of the majority's failure to understand the difference between a fact relevant to an expert's credibility and "fact or data" calling into question the reliability of an expert's opinion. Dr. Seidel admitted that he presumed, incorrectly, that Bernardi had not been belted in at the time of the accident. But he also explained that the "distance translation" that may have contributed to the herniation occurred when Bernardi leaned forward to set the parking brake—a fact that no one contested:

- Q. If you were to hear from witnesses that this was an accident that didn't cause much, oiff any, damage to the bus, would that change your opinion?
- A. No. Buses are huge. And the vehicles that hit the buses lose and they show the damage, and the buses don't.

My experience dealing with bus drivers is that they are not restrained. They have a large area in which they operate physically.

So there may have been a translation of his body over a distance when the accident occurred.

Q. During Mr. Bernardi's deposition, he explained to us that the accident occurred while he was leaning forward and attempting to pull the parking brake of the bus.

Does that come into your medical analysis in any way?

A. If that was the case, then he had more of a distance translation of the torso versus the lower half of the body.

Dr. Seidel's opinion that the accident caused the herniation was not premised on the incorrect assumption that Bernardi was unbelted. He stated that there "may" have been a "distance translation" if Bernardi was unbelted, and that there was "more" of a distance translation due to Bernardi's act of reaching for the brake when Rock's car struck the bus. The majority unfairly and inaccurately mischaracterizes this testimony as reflecting an opinion that Bernardi was "flung forward or backward due to the impact." Dr. Seidel never said anything of the kind, or even hinted at such a mechanism. His misperception about the seat belt was fodder for cross-examination, not a ground for the exclusion of his testimony. Under MRE 702, a trial court's gatekeeping function focuses on an examination of an expert's methodology. "A *Daubert* inquiry is not designed to have the district judge take the place of the jury to decide ultimate issues of credibility and accuracy." *Lapsley v Xtek, Inc*, 689 F3d 802, 805 (CA 7, 2012).

Citing Bethea's estimate of the forces involved in the accident, the majority again misstates the facts and draws a blatantly incorrect conclusion. The majority accurately recounts that the

circuit court offered as one ground for disallowing Dr. Seidel's testimony that Dr. Seidel had inaccurately assumed that the forces involved in the accident were fairly significant. The majority concedes that "[w]hile Dr. Seidel testified that vehicles involved in accidents with buses 'lose and they show the damage,' we agree that review of the record reveals no assumption on Dr. Seidel's part that a fairly significant force was involved in this accident due to the damage to defendant's Jeep." (Emphasis added.) Yet four sentences later, citing evidence that Dr. Seidel was aware that Bernardi had been in an accident, the majority states: "All of this suggests that Dr. Seidel believed that significant force was involved in this accident."

Aside from the fact that the majority manages to completely contradict itself in a single paragraph, the majority is wrong. As the majority initially admitted, Dr. Seidel knew perfectly well that this was a low-impact collision. He addressed this issue in his deposition by pointing out that a cough or a sneeze can herniate a disc. He added that an "elderly male with underlying arthritic change" is at increased risk of a traumatic herniation, and that carnival rides exerting low g-forces routinely carry "warnings that say, if anyone has arthritis or problems with their spine, they should not go on those rides. And that's because they get injuries to their spine by going on those rides." The claim that Dr. Seidel overlooked the collision facts or ignored them is utterly disingenuous, yet another reason the circuit court abused its discretion.

Dr. Seidel's testimony rested on a sound and reliable scientific foundation. That some case facts might undercut the believability of that opinion did not render it inadmissible. The circuit court and the majority have displaced the role of the jury searching out and relying on facts irrelevant to a proper inquiry under MRE 702.

V

Finally, the majority has also misconstrued and misapplied basic proximate cause principles. Citing *Skinner v Square D Co*, 445 Mich 153; 516 NW2d 475 (1994), the majority holds that Bernardi's causation proofs are too "speculative" to go to a jury. This case is a far, far cry from *Skinner*.

At the time of his death, the decedent in Skinner had been operating an electric metal "tumbling machine" of his own design and manufacture. Id. at 157. The plaintiffs theorized that defendant Square D Company defectively designed a switch that the decedent had incorporated in his tumbling machine such that the switch sometimes malfunctioned. Id. at 158. Because no one witnessed the decedent's accident, no direct evidence demonstrated any relationship between the switch and the decedent's electrocution. The plaintiffs' case against Square D was entirely circumstantial, predicated on a mere assumption that the Square D switch had played a role in the decedent's death. Id. at 163. Some of the physical evidence directly contradicted the hypothetical accident scenario proposed by the plaintiffs. Id. at 171-172. Square D maintained that even assuming the presence of a defect in its switch, the plaintiffs' circumstantial proofs failed to demonstrate that the decedent "was misled by the switch when he was fatally electrocuted." Id. at 158. The Supreme Court agreed, concluding that the record contained no direct or circumstantial evidence from which a reasonable jury could infer the mechanism of the decedent's electrocution or whether the switch contributed to the accident. The Court emphasized in Skinner that "[t]o be adequate, a plaintiff's circumstantial proof must facilitate reasonable inferences of causation, not mere speculation." Id. at 164.

This is not a *Skinner* case by any stretch of the imagination. In *Skinner*, no one saw the accident, and the electrocuted plaintiff could not describe the circumstances surrounding the accident. A defective switch was but one of many possible explanations for what had happened. No such factual vacuums exist in this case. There is no dispute that there was an accident with an impact strong enough to propel a large school bus forward some 10 feet. There is no dispute that Bernardi had no back pain before the accident. There is no dispute that Bernardi woke up the next day in terrible pain. There is no dispute that a herniated disc was discovered shortly thereafter. There is no dispute that trauma can cause a herniated disc. Here, the expert's testimony derives from an established differential diagnosis founded on facts combined with recognized scientific principles, not speculation. *Skinner* is inapposite.

The majority ignores a powerful strand of caselaw that is directly applicable to cases such as this. In Kaminski v Grand Trunk Western R Co, 347 Mich 417, 422; 79 NW2d 899 (1956), our Supreme Court explained that "if there is evidence which points to any 1 theory of causation, indicating a logical sequence of cause and effect, then there is juridical basis for such a determination, notwithstanding the existence of other plausible theories with or without support in the evidence." (Quotation marks and citation omitted.) More recently, in Wilkinson v Lee, 463 Mich 388; 617 NW2d 305 (2000), the Court addressed causation in a factual situation not unlike this one. In Wilkinson, as here, the plaintiff's vehicle was struck from behind. Id. at 389. The crash was more serious in that case, but the plaintiff's symptoms developed far more slowly. Two years after the accident, the plaintiff was diagnosed with a brain tumor. His physicians testified that the trauma could have precipitated or accelerated the plaintiff's symptoms from the tumor. *Id*. at 390. This Court found evidence of proximate cause lacking, but the Supreme Court reversed. The Supreme Court held, "Regardless of the preexisting condition, recovery is allowed if the trauma caused by the accident triggered symptoms from that condition. The medical testimony at trial would clearly have permitted the jury to conclude that the trauma caused by the accident precipitated the symptoms." Id. at 395.

Here as in *Wilkinson*, there was nothing "speculative" about the medical testimony. The Supreme Court observed in *Wilkinson* that the plaintiff's brain tumor "made him more vulnerable to adverse consequences from head trauma than the average person." *Id.* at 397. The Court held that based on the physicians' testimony linking the accident and the symptoms, "the issue of proximate cause was properly submitted to the jury." *Id.* at 398. It is hardly unreasonable or "speculative" to accept that an older man with preexisting spinal disease would be more susceptible to spinal injury, and that even a relatively low-impact collision could set in motion the physiological events precipitating a disc rupture. The evidence created a question of fact regarding the causation of Bernardi's herniated disc. I would reverse the circuit court and remand for trial on the merits.

/s/ Elizabeth L. Gleicher