

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF WAYNE

PEOPLE OF THE STATE OF MICHIGAN,

Plaintiff,

vs.

Case No. 15-0000376-01-FC

SIERRA NICOLE TANKERSLEY,

Defendant.

MOTION

BEFORE THE HONORABLE MICHAEL JAMES CALLAHAN

DETROIT, MICHIGAN - FRIDAY, FEBRUARY 12, 2016

APPEARANCES:

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Detroit, Michigan

Friday, February 12, 2016

- - -

(At 9:29: a.m., proceedings begin.)

THE COURT: *People v Sierra Tankersley.*

Counsel?

MS. JARCZEWSKI: Good morning, your Honor,
Michelle Jarczewski on behalf of the People.

MS. BARNWELL: Good morning, your Honor,
Wendy Barnwell on behalf of Ms. Tankersley.

MS. MURPHY: Good morning, your Honor,
Kathy Murphy on behalf of Ms. Tankersley.

THE COURT: And this is argument in the --
on the issue of the admission to testimony by Dr. Steve
Rundell, biomechanical forensic engineer. Go ahead.

MS. MURPHY: Your Honor, Michigan Rule of
Evidence 702 provides that 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

1 applied the principles and methods reliably to the facts
2 of the case.

3 In *People v Smith*, the Court held the party
4 proffering the expert's testimony must persuade the court
5 that the expert possesses specialized knowledge which will
6 aid the trier of fact in understanding the evidence or
7 determining a fact in issue. Because the critical inquiry
8 is whether the expert's testimony will aid the factfinder,
9 the expert testimony must touch on something beyond common
10 knowledge.

11 In *People v Kowalski* the Michigan Supreme
12 Court said, "Whether expert testimony is beyond the kind
13 of common knowledge is a commonsense inquiry that focuses
14 on whether the proposed expert testimony is on a matter
15 that would be commonly understood by the average person.
16 If the untrained layman would be qualified to determine
17 intelligently and to the best possible degree the
18 particular issue without enlightenment from those having a
19 specialized understanding of the subject involved in the
20 dispute, then expert testimony is unnecessary."

21 Here, it is clear from two facts that Dr.
22 Rundell's testimony is necessary to assist the jury. One,
23 the first jury was unable to reach a verdict based on the
24 expert testimony provided in the first trial. The only
25 defense expert at that trial was Dr. Dragovic.

1 Two, you yourself, your Honor, heard people
2 say during voir dire that children can't die from falling.
3 That is clearly not true. Testimony of Dr. Rundell that
4 sufficient force could have been generated by a fall from
5 a kitchen counter to crack Maliyah's skull will assist the
6 jury in this case.

7 However, even if expert testimony would
8 assist the trier of fact, the proffered testimony must
9 also meet the so-called trilogy of restrictions, which
10 includes a searching inquiry into qualification,
11 reliability, and fit. That is from the recent Michigan
12 Supreme Court case of *Elher v Misra*.

13 A court evaluating proposed testimony must
14 ensure that the testimony will assist the trier of fact is
15 provided by an expert qualified in the relevant field of
16 knowledge, and is based on relevant data from
17 methodologies that are applied reliably to the facts of
18 the case.

19 In *Gilbert v DaimlerChrysler* the Michigan
20 Supreme Court held MRE 702 requires the trial court to
21 ensure that each aspect of an expert witness's proffered
22 testimony, including the data underlying the expert's
23 theories and the methodology by which the expert draws
24 conclusions from that data is reliable.

25 This gatekeeper role applies to all stages

1 of expert analysis. MRE 702 mandates a searching inquiry,
2 not just of the data underlying expert testimony, but also
3 of the manner in which the expert interprets and
4 extrapolates from those data. Thus, it is insufficient
5 for the proponent of expert testimony merely to show that
6 the opinion rests on data viewed as legitimate in the
7 context of a particular area of expertise. The proponent
8 must also show that any opinion based on those data
9 expresses conclusions reached through reliable principles
10 and methodology.

11 We have met the Daubert standard. Dr.
12 Rundell's testimony will assist the trier of fact to
13 determine whether Maliyah's skull could fracture from a
14 fall from the counter. Dr. Rundell is more than qualified
15 in his field. And, your Honor, I have an additional
16 affidavit that I would like to submit. I have a copy for
17 the prosecutor from Dr. Rundell listing some additional
18 sources from his general knowledge that he relies upon and
19 it also has a copy of his CV which I'm not sure your Honor
20 has seen.

21 The proponent must also show that any
22 opinion based on those data express the conclusions
23 reached through reliable principles -- I'm sorry, I said
24 that already.

25 Dr. Rundell is more than qualified in his

1 field, biomechanical engineering, which is relevant to
2 this inquiry, and his opinion is based on reliable data,
3 principles, and methodologies that are applied reliably to
4 the facts in this case. His testimony will help the trier
5 of fact determine a fact in issue, that being the
6 quantification of force. And the quantification of force
7 is beyond the expertise of ordinary people.

8 Yesterday, the prosecutor criticized one of
9 Dr. Rundell's sources by citing an article that many
10 opponents of using science to rebut the unsubstantiated
11 claims of prosecution experts in child fatality cases,
12 deceptively entitled Annual Risk of Death Resulting from
13 Short Falls Among Young Children: Less than One in a
14 Million, by Chadwick et al.

15 When a defendant asserts that an accidental
16 short fall caused the injury leading to death, Chadwick's
17 article is often cited, as it was in the first trial of
18 this case by Dr. Hlavaty and by the prosecutor yesterday.
19 The prosecutor claims that Chadwick discredits the Weber
20 article from Germany that Dr. Rundell consulted. The
21 court should know that Chadwick's article itself has been
22 discredited.

23 In A Probabilistic Analysis of Short Fall
24 Arguments in Legal Cases of Abusive Head Trauma, which we
25 cited in our motion for expert fees in this case, Maria

1 Cuellar of Carnegie Mellon University notes that the
2 database that Chadwick used to come up with in his one-in-
3 a-million statistics was the number of all infants in
4 California. Not all infants who died, not even all
5 infants who died of head trauma, but all living infants in
6 the State of California.

7 There were 13 reported child deaths from
8 falls in California during the time period that Chadwick
9 chose to use as the focus of his study. Chadwick
10 discounted 6 of those for various reasons, some of which
11 are suspect, leaving only six. And the number of infants
12 in California was two-and-a-half million. From that data,
13 he came up with .48 in a million per year over a five-year
14 period.

15 I do not myself understand statistics and
16 could not learn it in less than one day in order to
17 prepare for this argument. However, I will relay the
18 findings in the criticism, two of which are obvious. The
19 database that Chadwick used was flawed. All childhood
20 fatalities are rare, rarer than -- are just that, rare.
21 They are not impossible.

22 The population must be restricted in light
23 of the evidence. The competing hypotheses should be
24 compared in light of the evidence, and the data are
25 insufficient. I have a copy of the source that I'm

1 referring to for the Court.

2 The criticism of Weber in the Chadwick
3 article is also suspect. Chadwick asserts that most
4 children who die from head injuries die from brain
5 swelling and loss of brain circulation, so, therefore,
6 cadaver studies on skull fracturing are irrelevant. If
7 the brain swelling and loss of brain circulation are
8 preceded by skull fractures, however, then studies of
9 skull fractures are relevant. All Dr. Rundell is opining
10 on with respect to the fall is the possibility of a skull
11 fracture from a fall from a countertop, nothing more. And
12 the fact --

13 THE COURT: Well, I'm not sure that's
14 speculating that there are two skull fractures from the
15 single fall, one on the top right and one on the bottom
16 left of the skull; is he not?

17 MS. MURPHY: He is. And --

18 THE COURT: Go ahead.

19 MS. MURPHY: Okay. In addition, the
20 medical examiner testified that an adult woman's fists
21 could have caused the skull fractures in this case. Dr.
22 Rundell studied the punching force generated by Olympic
23 level boxers and they were not as strong as the forces
24 generated from a fall from a countertop.

25 The facts that Dr. Rundell used were the

1 caretaker's explanation and the medical examiner's
2 testimony. The methodologies he used are engineering and
3 mathematics. The studies he consulted are sound. He must
4 be allowed to testify in this case. In addition, your
5 Honor, Ms. Tankersley has federal and state constitutional
6 rights to present a defense to call witnesses and to the
7 effective assistance of counsel.

8 Recently, the Michigan Supreme Court
9 decided the case of *People v. Ackley*. The Supreme Court
10 reversed the defendant's conviction in *Ackley*, a case in
11 which it was alleged that the defendant had intentionally
12 killed his girlfriend's baby, either by blunt force trauma
13 or shaking. And I'd like to also point out, your Honor,
14 with respect to Chadwick. Chadwick was also discussing
15 shaking and not just falling.

16 Anyway, the defendant denied hurting the
17 child in *Ackley* and said that she must have died as the
18 result of an accidental fall. Defense counsel consulted
19 with a pediatrician who told counsel he was not the right
20 person and who recommended that counsel consult another
21 expert in the field. Instead, counsel relied on the
22 original pediatrician to prepare for trial and presented
23 no expert witnesses on the defendant's behalf. The
24 Supreme Court found that counsel's efforts to investigate
25 and attempt to secure suitable expert assistance in

1 preparing and presenting defendant's case fell below an
2 objective standard of reasonableness that was prejudicial
3 to the defendant. *Ackley* imposes a duty on defense
4 counsel to secure and present not just any expert
5 testimony, but to consult appropriate experts who could
6 meaningfully assist counsel in advancing the theory of the
7 defense and in countering the prosecution's theory of
8 guilt.

9 In addition, in the recent case of *People v*
10 *Di Mambro*, the Macomb County Circuit Court entered a new
11 trial -- or ordered a new trial for the defendant in a
12 written opinion issued January 5th, 2016, which I have a
13 copy of for your Honor and for Madam Prosecutor. There,
14 the defendant was accused of abusing his child resulting
15 in death. There had been an assertion that the child had
16 fallen from a bar stool shortly before his death. Defense
17 counsel had proceeded at trial on a theory of involuntary
18 manslaughter and did not consult with the proper medical
19 expert. Defendant was convicted.

20 Defendant filed a motion for new trial in
21 the trial court and a motion for remand for a Ginther
22 hearing with the court of appeals, which was granted. In
23 his motion, defendant included an affidavit by Dr.
24 Dragovic and an affidavit by a biomechanical engineer Dr.
25 Chris Van Ee, whom Dr. Rundell also consulted in this

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case.

In his affidavit, Dr. Dragovic stated that the autopsy did not support the conclusion of the medical examiner and a so-called child abuse expert, Dr. Angelilli, that the death was a homicide and he opined that the injury could have been caused by a fall from a bar stool. Dr. Van Ee supported the possibility that a short fall with the wrong combination of fall dynamics could accidentally cause fatal head trauma in a toddler, just like in this case. He opined further that the child abuse expert lacks the expertise to testify that the fall from the bar stool could not have caused the fatal injuries. After the Ginther hearing, the court issued a written opinion.

In addition to finding a Brady violation that had to do with photographs that were not produced in time for the Ginther hearing, the Circuit Court found trial counsel ineffective for failing to investigate other theories of causation. Counsel had proceeded on a theory of involuntary manslaughter in hopes that it would be supported at trial. His expert, someone names Dr. Cassin, argued with -- agreed with the ME that the fatal injury had to have occurred within hours of the child's death and could not have been attributable to an earlier fall from a barstool. If counsel had known how Dr. Cassin would

1 testify, the Circuit Court held, it was objectively
2 unreasonable to use him. Counsel's assistance was found
3 constitutionally deficient for failing to avail himself of
4 any experts other than Dr. Cassin.

5 In Ms. Tankersley's first trial, Dr.
6 Dragovic testified that biomechanical engineers can be
7 involved in making adjustments in cases like this to
8 quantify force. It's on page 83 of the transcript from
9 October 29th.

10 Ms. Tankersley needs Dr. Rundell to counter
11 the ridiculous statements about force that the medical
12 examiners will again try to make in this case. And, your
13 Honor, we renew our motion to preclude the Wayne County
14 Medical Examiners from testifying about the magnitude of
15 force necessary or likely to cause skull fractures as they
16 are unqualified and have even admitted, in testimony at
17 the trial, that they are unqualified and I cited to the
18 specific pages of their testimony in our motion in limine
19 to preclude them from testifying on that issue.

20 THE COURT: Well, that's a different
21 question.

22 MS. MURPHY: Yes, your Honor. The
23 prosecutor's objection to Dr. Rundell is based solely on
24 the content of his conclusions, which the prosecutor
25 doesn't like, and the objection is couched as an attack on

1 Dr. Rundell's data. We respectfully request that you deny
2 the prosecutor's motion to preclude Dr. Rundell from
3 testifying in this case.

4 THE COURT: Counsel?

5 MS. JARCZEWSKI: Thank you, Judge.

6 Certainly Daubert states the trial judge must ensure that
7 any and all scientific testimony or evidence admitted is
8 not only relevant --

9 THE COURT: Just so the record is clear,
10 I've been dealing with Daubert hearings when both
11 attorneys likely were in high school, but in any event go
12 ahead.

13 MS. JARCZEWSKI: Okay. Thank you, your
14 Honor. Not only relevant but also reliable. The problem
15 here, your Honor, is that whatever this scientist's
16 laboratory tests, test dummies, computer models, cadaver
17 models show does not comport to what actually happens in
18 real life. And we know that based on the actual clinical
19 studies have been documented.

20 In People's Exhibit Number 1, the annual
21 risk of death resulting from short falls among young
22 children less than one in a million. It is a review of
23 five book chapters, two medical society statements, seven
24 major literature reviews, three public data-based searches
25 and 177 peer-reviewed published articles.

1 Based on that, which is the leading source
2 in this area, it was based -- it was determined that the
3 best current estimate of the mortality rate for short
4 falls affecting infants and young children is less than
5 .48 deaths per one million young children per year. And
6 that's only going, your Honor, on the short falls that
7 were actually reported. It's not including all the short
8 falls that were -- where children were never brought for
9 medical care, so certainly that number is actually much
10 less.

11 Clearly, something is amiss between what
12 the biomechanical engineers are able to reproduce in a
13 laboratory and what happens in real life. That is
14 acknowledged in People's Exhibit Number 1 in the following
15 ways.

16 Under studies using biomechanical analysis
17 --

18 THE COURT: That's the one-in-a-million
19 article?

20 MS. JARCZEWSKI: Correct.

21 THE COURT: I'm really more interested in
22 your comment on People's Exhibit 2, Bilateral Pediatric
23 Skull Fractures: Accident or Abuse? Do you have a
24 comment on that?

25 MS. JARCZEWSKI: I do, your Honor.

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THE COURT: Go ahead.

MS. JARCZEWSKI: Okay. Dr. Rundell indicates that this study is somehow similar to the facts in our case and the People could not disagree more. That case deals with a six-week-old in a stroller being pulled up a flight of stairs backwards where a baby fell out and impacted the top of her head. She had bilateral symmetrical simple linear fracturing on the parietal bones radiating from the impact site.

What happened there is common sense, it's acceptable, it happens in real life. We have two impact sites that are not connected, one on the right base of the skull, the other on the top left side of the head. The one on the top of the head was pushing inward. The child in this study lived, had no neurological abnormalities, was absolutely perfectly fine. Our child obviously died.

The fact that Dr. Rundell is going to conclude that these cases are in any way similar, it's absolutely ridiculous, your Honor.

THE COURT: Well, does he agree that there was a depressed fracture?

MS. JARCZEWSKI: And that's another thing, your Honor. We have three medical examiners --

THE COURT: Does he agree that there was --

MS. JARCZEWSKI: No. He questions whether

1 that's depressed despite the fact that four medical
2 doctors involved in this case, three of whom are forensic
3 pathologists, two of whom are chief medical examiners of
4 their counties, one --

5 THE COURT: Well, isn't he required to
6 accept the injury as it was described?

7 MS. JARCZEWSKI: Well, obviously he doesn't
8 because in his report, your Honor, he's concluding that
9 Mayliah -- "Essentially Mayliah's injuries indicate that
10 she experienced blunt impact loaded to the back of her
11 skull with a planar surface."

12 So he indicates that the skull fracture on
13 the top of her head then is due to out-bending as he
14 described it. That is completely logically factually
15 inconsistent with a depressed skull fracture, and even he
16 acknowledged that because when I asked him about that he
17 said to me, well, that's a good question. And that's when
18 he started to backtrack and change his theory to say,
19 well, I'm not exactly sure. I guess I don't know which
20 one happened first.

21 THE COURT: Well, while I haven't read all
22 of the transcripts from Dr. Hlavaty, does anybody describe
23 or did anybody describe for the jury in the first trial
24 exactly how the head of the infant impacted from a fall to
25 the ground from a countertop?

1 MS. JARCZEWSKI: Judge, the People's theory
2 is that a fall from the -- from a countertop --

3 THE COURT: I know your theory, but did
4 anybody ever describe how this infant impacted the ground
5 from that fall?

6 MS. JARCZEWSKI: No.

7 THE COURT: Her body position?

8 MS. JARCZEWSKI: No.

9 THE COURT: Okay.

10 MS. JARCZEWSKI: But I also want to point
11 out the serious limitations that are acknowledged in all
12 of the defense experts own sources, they -- and I've gone
13 through them. Not the ones all on his bibliography but
14 all of the ones that he cited in his actual report where
15 the authors cull out the fact that this provides serious
16 limitations. We cannot apply this to real world
17 situations because the science isn't there yet.

18 THE COURT: But what about the argument
19 from the defense that they can't present their case to the
20 jury in defense of their client without the testimony of
21 Dr. Rundell; do you have any opinion on that?

22 MS. JARCZEWSKI: But unfortunately the
23 theory of Dr. Rundell doesn't comport to what happened in
24 real life, so how is that helpful or reliable? The only
25 thing is is misleading. And every author of his source

1 acknowledges the fact that there are serious limitations
2 because there is no way --

3 THE COURT: Calm down, we don't have a
4 jury.

5 MS. JARCZEWSKI: Okay, I'm sorry. Because
6 there is no way to recreate what happens in real life in a
7 laboratory, because they acknowledge that the results are
8 not consistent with what we know happens in real life. If
9 the Court would allow me I will go through each of the
10 sources --

11 THE COURT: The Court will not allow you.
12 I'm ready to rule.

13 MS. JARCZEWSKI: Okay, thank you, your
14 Honor.

15 THE COURT: In the matter of the defense
16 witness expert Dr. Steven Rundell proposed by the defense
17 to testify as an expert in biomechanics, obviously he's
18 not a medical doctor, he is a Ph.D., the Court is familiar
19 with the standards of MRE 702 and the case of *Elher v*
20 *Murphy and Beaumont Hospital and Preferred Medical Group*.
21 In that case the Supreme Court found that the expert was
22 not a proper person to testify about the standard of care
23 in a medical malpractice case because the Court states at
24 page five of the opinion, "Plaintiff's expert was required
25 to present more than his own opinions, credentials and

1 number of procedures he had performed."

2 Dr. Rundell's testimony before the jury
3 would essentially begin and end with the defendant's
4 theory of the case that the infant suffered an accidental
5 fall from the top of a counter 36 inches from the ground
6 and that the impact with the ground at the speed that Dr.
7 Rundell hypothesized fairly accurately between 9.9 and
8 10.9 miles per hour caused two separate fractures to her
9 skull simultaneously or almost simultaneously, one being
10 to the parietal bone, the top right side, and one to the
11 occipital bone, the bottom left of the skull of Mayliah.

12 The defense urges that they cannot present
13 their defense without his testimony. However, I find that
14 his testimony would not be helpful to the jury and that
15 his testimony is not credible in the sense that it runs
16 counter to an article that both sides have cited called
17 *Bilateral Pediatric Skull Fractures: Accident or Abuse?*
18 from the *Journal of Trauma* volume 45, July 1998. That
19 article is peer-reviewed. Dr. Rundell's testimony before
20 me has not in any sense been peer-reviewed and the
21 injuries suffered by the five-month-old in the *Bilateral*
22 *Pediatric Skull Fractures* is not similar and not the same
23 as the injuries suffered by Mayliah in this accident.

24 Further, the defense's argument that they
25 can't present their defense in any other way falls on deaf

1 ears in that apparently the mother in her video before the
2 Detroit Police officer or officers testified that that's
3 how she saw the fall and she saw the distress which the
4 fall caused to her infant and she testified to it. So
5 it's captious for me to find that the testimony of Dr.
6 Rundell is anything more than a conduit for putting before
7 the jury repeatedly and in pseudoscientific fashion the
8 theory that the mother would present.

9 The motion to admit the testimony of Dr.
10 Rundell before this jury is denied because I find it would
11 not be in any sense helpful to the jury, could be
12 misleading and, in fact, is a conduit for a mere
13 repetition of the mother's defense. Thank you.

14 MS. MURPHY: Thank you, your Honor. I
15 would like you to order the court reporter to make a
16 transcript of yesterday's hearing and today's ruling?

17 THE COURT: Denied, you have to go to Court
18 Reporting Services.

19 MS. MURPHY: Well, we're going to go to the
20 Court of Appeals, we request permission for an
21 interlocutory appeal, your Honor and a stay.

22 THE COURT: Motion for a stay is denied,
23 I'm going to trial on Tuesday.

24 MS. MURPHY: That's fine, your Honor, we'll
25 be having a new trial.

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MS. JARCZEWSKI: Thank you, Judge.

THE COURT: Oh, during the trial, you know, everybody -- Judge Roberson tried the case the first time. You don't have to ask permission from me to approach the witnesses, just approach them. You can probably save 20 minutes by eliminating that procedure. Just put your case in and don't worry about the permission from the bench. Go ahead.

MS. JARCZEWSKI: Thank you, your Honor. I do have one motion in limine but I could wait until Tuesday or I could bring it to the Court's attention now.

THE COURT: You could do what?

MS. JARCZEWSKI: I have a motion in limine so I would be happy to wait until Tuesday morning.

THE COURT: I don't have any more time for this case today.

MS. JARCZEWSKI: Absolutely.

(Proceedings concluded at 9:54 a.m.)

CERTIFICATION

I certify that this transcript, consisting of 23 pages, is a true and accurate transcription of the proceedings in this case before the Honorable Michael Callahan on Friday, February 12, 2016.

Audrey R. Kahn
CSMR-1374

Dated: February 15, 2016