Filed: November 29, 2012

IN THE SUPREME COURT OF THE STATE OF OREGON

STATE OF OREGON,

Respondent on Review,

v.

LUIS SANCHEZ-ALFONSO,

Petitioner on Review.

(CC C051693CR; CA A135246; SC S059458)

En Banc

On review of the Court of Appeals.*

Argued and submitted June 12, 2012.

Bronson D. James, JDL Attorneys, LLP, Portland, argued the cause and filed the brief for petitioner on review.

Anna Joyce, Solicitor General, Salem, argued the cause and filed the brief for respondent on review. With her on the brief was John R. Kroger, Attorney General.

WALTERS, J.

The decision of the Court of Appeals is reversed. The judgment of the circuit court is reversed, and the case is remanded to the circuit court for further proceedings.

*Appeal from Washington County Court, Suzanne Upton, Judge. 238 Or App 160, 241 P3d 1194 (2010).

WALTERS, J.

In this criminal case, we consider whether a physician's conclusion that defendant physically had abused a child met the requirements for admissibility of scientific evidence. We hold that it did not, that the trial court erred in admitting the evidence , and that the error was not harmless. Consequently, we reverse defendant's convictions and remand for further proceedings.

The child in this case, C, was approximately 18 months old when he arrived at the emergency room with multiple injuries, including a golf-ball-sized lump on his forehead and a fractured skull. The state accused defendant of causing C's injuries and charged him with two counts of criminal mistreatment and first- and third-degree assault. To prove first-degree assault, the state had to show that defendant had caused C "serious physical injury," defined as injury that "creates a substantial risk of death." ORS 163.185,[1] ORS 161.015.[2]

At trial, defendant acknowledged that he had caused C's forehead injury but claimed that he had done so accidentally and that that injury had not created a "substantial risk of death." As to C's more serious injury -- the skull fracture -- defendant

---

[1] ORS 163.185 provides, in part:

"(1) A person commits the crime of assault in the first degree if the person:

"(a) Intentionally causes serious physical injury to another by means of a deadly or dangerous weapon[.]"

[2] ORS 161.015(8) provides, in part:

"'Serious physical injury' means physical injury which creates a substantial risk of death[.]"

asserted that it was not he, but C's aunt, who was the responsible actor.

The state called a physician employed by CARES Northwest, a child abuse assessment center, as one of its witnesses. Over defendant's OEC 702[3] and OEC 403[4] objections, the trial court admitted the physician's testimony and her written report diagnosing C as victim of child abuse and concluding that "[defendant] clearly caused [C's] injuries" and that "[C] was physically abused by [defendant]." The jury convicted defendant of third-degree assault and two counts of criminal mistreatment. The jury acquitted defendant on the charge of first-degree assault, but found him guilty of the lesser-included offense of second-degree assault. Like first-degree assault, second-degree assault requires a finding that the inflicted injury created a substantial risk of death. ORS 163.175;[5] ORS 161.015(8).

On appeal, the Court of Appeals affirmed defendant's convictions. *State v.*

---

[3] OEC 702 provides:

"If scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education may testify thereto in the form of an opinion or otherwise."

[4] OEC 403 provides, in part:

"Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice[.]"

[5] ORS 163.175 provides, in part:

"(1) A person commits the crime of assault in the second degree if the person:

"(a) Intentionally or knowingly causes serious physical injury to another[.]"

Sanchez-Alfonso, 238 Or App 160, 162, 241 P3d 1194 (2010). The court separately considered the two aspects of the physician's diagnosis -- that C had been physically abused, and that defendant had been the perpetrator of that abuse. The court concluded that the former was scientifically valid and admissible, but declined to decide whether the same was true for the latter. *Id*. at 167-68. Even if the trial court had erred in admitting the physician's conclusion that defendant had caused C's injuries, the Court of Appeals reasoned, the error was harmless because defendant "never posited that anyone other than defendant himself caused the physical injuries." *Id*. at 170. The issue "[a]t the heart" of the case, the court opined, was defendant's mental state when he injured C; the challenged evidence, by contrast, "went to a part of the case that was not meaningfully at issue, namely, defendant's role as the causal agent of those injuries." *Id*.

We allowed defendant's petition for review. Defendant contends that the physician's diagnosis that "[C] was abused by [defendant]" was not admissible under OEC 702 and OEC 403 and *State v. Brown*, 297 Or 404, 687 P2d 751 (1984), *State v. O'Key*, 321 Or 285, 899 P2d 663 (1995), and *State v. Southard*, 347 Or 127, 218 P3d 104 (2009). Although the state acknowledges that the physician's conclusion that defendant had been the perpetrator of C's injuries was not admissible under those standards, it argues that that conclusion was not a part of the physician's medical diagnosis. Rather, the state asserts, the physician was only relating a fact that she considered to be undisputed at the time of her report -- that defendant was the sole individual present when C was injured. The state contends that the admission of the physician's conclusion was harmless because the jury would have considered the physician's testimony in that light.

The facts necessary to our review of the parties' arguments are undisputed. On the evening of May 12, 2005, defendant was living in an apartment with his girlfriend (mother) and C, his girlfriend's approximately 18-month-old son. C's aunt (aunt) also frequently spent time in the home. Mother was feeling ill and asked aunt and aunt's boyfriend to take her to the hospital, leaving C in defendant's care. Mother stayed at the hospital overnight. Early the next morning, defendant called mother and reported that he had fallen while holding C. Mother sent aunt back to the apartment to check on C. When aunt arrived, she found that C had a golf-ball-sized lump on his forehead.

Aunt took C to the hospital. In addition to the forehead injury, the emergency room physician found that C had swelling around the back of his head and ear, a contusion on his chin, and bruises on his back and right leg. A CAT scan revealed a fractured skull beneath the bruising behind C's ear. Suspecting child abuse, the physician contacted CARES Northwest. Dr. Skinner, a CARES physician, evaluated and treated C.

Skinner's report, prepared about two weeks after she examined C, stated:

> "*[Defendant] clearly caused [C's] injuries which caused his hospitalization on May 13*. [Defendant] provided at least three versions of what happened to [C] on May 12/May 13. His latest story is that he threw [C] into a dresser; [C] hit the dresser and slid down. Though this may have happened, I do not believe this is the whole story. When I saw [C] on Friday evening, he had approximately 10 areas of injury on his head and neck alone -- in addition to a skull fracture. If [C] had only one impact injury (the dresser -- then the floor) I would expect one or two areas of his head to be injured; not 10. I believe there were more injuries which took place that night.
>
> " * * * * *
>
> "*[C] was physically abused by [defendant]*. This *medical diagnosis*

> is based on [C's] physical exam on Friday May 13, accompanied by review of statements made by [defendant]."

(Emphasis added.)

In her report, Skinner referred to statements that defendant had made in recorded interviews with law enforcement. Over the course of those interviews, defendant had provided numerous accounts of how C's injuries had occurred, three of which were relayed to Skinner. In one account, defendant woke to the sound of C crying and went to C's room to comfort him. Defendant was dizzy and groggy from having taken methadone pills the night before, blacked out, and woke up on the floor with C. Defendant speculated that he may have tripped on toys that were lying on the floor and thrown C on top of a dresser and that C may have fallen from the dresser to the floor. In a second account, defendant stated that he put C on top of a cabinet or dresser, left the room for a moment, and came back to find C on the floor. Finally, defendant stated that he intentionally threw C head-first into a dresser because he was angry with C's mother.

The admissibility of Skinner's report initially arose when the prosecutor told the trial court that he planned to use a slide that quoted from the report as a demonstrative exhibit in his opening statement. Defendant interposed various objections to that use of the report and also objected, more generally, to the anticipated admission of Skinner's medical diagnosis at trial, citing OEC 702 and OEC 403. The court permitted the state to use the slide, indicated that it would admit the report, and granted defendant a continuing objection.[6]

[6] At trial, the prosecutor did not use Skinner's conclusion that "[C] was

When the state called Skinner to testify at trial, the court held an evidentiary hearing under OEC 104[7] to determine the admissibility of her diagnosis. Skinner testified that child abuse is a pediatric diagnosis made for the purposes of treatment and that "a lot" of literature exists about the issue within pediatric and other journals. She told the court that she had testified to diagnoses of child abuse in approximately 30 cases, she could arrive at such diagnoses with a reasonable degree of medical certainty, and her diagnoses were amenable to peer review. Skinner acknowledged, however, that she knew of no studies that had analyzed whether medical providers' diagnoses of child abuse were accurate and that she did not know the potential rate of error in making such diagnoses.

In outlining the methodology that she typically uses in evaluating a child for potential abuse, Skinner said that she looks at the medical condition of the child and conducts a differential diagnosis to determine its cause. The statements of a victim or caregiver may be important in that analysis, she explained, with the statements of a verbal child being "most important." When the state asked whether the "peer literature" refers to "a gold standard in looking at whether persons suffer abuse," Skinner responded that that

---

physically abused by [defendant]" in his demonstrative exhibit. The use of that exhibit is not at issue on appeal.

[7] OEC 104(1) provides:

> "Preliminary questions concerning the qualification of a person to be a witness, the existence of a privilege or the admissibility of evidence shall be determined by the court, subject to the provisions of subsection (2) of this section. In making its determination the court is not bound by the rules of evidence except those with respect to privileges."

was hard to say because the field was so broad, but that, in cases like this, she preferred to examine the child and view the child's lab and radiologic studies. When the child is preverbal, Skinner explained, "we sort of have the most we were going to be able to get." In this case, because C was preverbal and his family members were unavailable, Skinner said that she had relied on interviews between defendant and law enforcement officials, and a follow-up conversation with a detective, to obtain C's "history."

At the conclusion of the OEC 104 hearing, the trial court determined that it would permit Skinner to present her diagnosis. The court found Skinner to be an expert in her field and her testimony to be credible. The court also reasoned that, although it might not be possible to evaluate the rate of error associated with Skinner's methodology, the techniques that Skinner had described were generally accepted and the specialty field within which she worked was no longer novel.

When Skinner testified before the jury, she told the jurors that, when she initially saw C on May 13, 2005, her diagnosis was "very concerning for inflicted injury." However, Skinner said, after obtaining the statements that defendant had made to law enforcement, she changed her diagnosis to "physically abused." The prosecutor then asked Skinner whether, in diagnosing child abuse, it is "important to recognize who may have inflicted the injury." Skinner answered that it was important to do so "if able" and that CARES typically makes, as a part of its "treatment recommendations," a request for no contact between persons where a responsible person has been identified. Next, the prosecutor asked whether Skinner had created a report and considered the history that she had gleaned from law enforcement in making that report and in reaching a diagnosis.

When she responded that she had, the prosecutor offered the written report, which the court received over defendant's "continuing objection."[8]

Skinner also testified that C's skull fracture was so serious that it had created a "substantial risk of death" and could have been caused by only "significant force." Skinner told the jury that the skull fracture was consistent with defendant's statement that he had thrown C head-first into the dresser, but that that statement did not explain all C's injuries. For his part, defendant maintained that the skull fracture had not occurred while he was caring for C. Defendant testified that, when aunt returned to the apartment after leaving C at the hospital, she had told defendant that C had been "injured again" and attributed those further injuries to the fact that she had been under the influence of methamphetamine and had not slept for the past 48 hours. Defendant testified that aunt had asked him to rearrange his story to incorporate all the injuries that C had suffered and that he had done so under additional pressure from C's mother. Three other witnesses confirmed that aunt had admitted to dropping and injuring C on the way to the hospital.

In its closing argument, the state emphasized the part of Skinner's written report that stated that "[defendant] clearly caused [C]'s injuries." The state also used the report to attack defendant's claim that C's aunt had injured C, arguing, "[Aunt] didn't cause any of these injuries. * * * [Y]ou had the medical reports. Take another look at

[8] As one of his pretrial objections to the prosecutor's anticipated quotation of Skinner's report in his opening statement, defendant asserted that the report would be cumulative of Skinner's testimony and should not be admitted. At trial, defendant did not again urge that objection, nor does he argue that ground on appeal.

that. [Skinner's] final conclusion is that [C] was physically abused by [defendant]."

As noted, the jury convicted defendant of criminal mistreatment and second- and third-degree assault. The Court of Appeals affirmed. We allowed review to determine whether Skinner's diagnosis that "[C] was physically abused by [defendant]" was admissible scientific evidence, and if not, whether its admission was harmless error that was "unlikely to have affected the verdict." *State v. Davis*, 351 Or 35, 48, 261 P3d 1197 (2011). We review for legal error. *See Jennings v. Baxter Healthcare Corp.*, 331 Or 285, 299, 14 P3d 596 (2000) (admission of scientific evidence reviewed for errors of law).

As a preliminary matter, we reject the state's contention that Skinner's conclusion that defendant had been the perpetrator of C's injuries was not part of her medical diagnosis. Skinner's conclusion was not merely an observation about the facts as she understood them at the time that she made her report -- namely, that defendant was C's sole caretaker on the night that he was injured. To the contrary, Skinner's report explicitly identified defendant as the person who had caused C's injuries and characterized her conclusion as a medical diagnosis. Skinner's report stated, "[C] was physically abused *by [defendant]*. This *medical diagnosis* is based on [C's] physical exam on Friday May 13, accompanied by review of statements made by [defendant]." (Emphasis added.) At trial, after eliciting Skinner's testimony that C had been "physically abused," the prosecutor asked Skinner whether, "in diagnosing child abuse[,] it is important to recognize who may have inflicted the injury" and whether she had considered the information that she had obtained from law enforcement in writing her

report and in reaching a diagnosis. When Skinner responded affirmatively, the prosecutor offered Skinner's report, which included her "medical diagnosis" that "[C] was physically abused by [defendant]." Thus, both Skinner's medical report and her trial testimony indicated that Skinner's identification of defendant as the perpetrator of C's injuries was part and parcel of her medical diagnosis.

Furthermore, defendant was entitled to challenge the admissibility of Skinner's conclusion that he was the cause of C's injuries, whether or not Skinner appropriately had incorporated that conclusion as a part of her medical diagnosis. When an expert reaches a conclusion as to the cause of an injury and purports to use medical or scientific techniques in doing so, a party may challenge the scientific validity of those techniques under OEC 702, whether or not the conclusion is a cognizable "medical diagnosis." *See* *Marcum v. Adventist Health System/West*, 345 Or 237, 247-48, 193 P3d 1 (2008) (admissibility of physician's conclusion that plaintiff's medical condition was caused by gadolinium subject to challenge under OEC 702). Accordingly, we proceed to determine whether the trial court erred in admitting Skinner's conclusion that defendant had caused C's injuries and, if so, whether that error was likely to have affected the verdict.

Helpful to our analysis is this court's decision in *State v. Southard*, 347 Or 127, a case in which the court considered the admissibility of a medical diagnosis of child sexual abuse made in the absence of physical evidence. In *Southard*, the court evaluated the diagnosis under the standards set out in *State v. Brown*, 297 Or 404, and *State v. O'Key*, 321 Or 285, and accordingly required that (1) the diagnosis be relevant under

OEC 401; (2) the diagnosis possess sufficient indicia of scientific validity and be helpful to the jury under OEC 702; and (3) the prejudicial effect of the diagnosis not outweigh its probative value under OEC 403. *Southard*, 347 Or at 133.

The court in *Southard* began by considering whether the diagnosis of sexual abuse satisfied the requirements of OEC 702 when examined according to the *Brown* and *O'Key* framework.[9] The court observed that a diagnosis of sexual abuse differs from other medical diagnoses in that it determines whether conduct -- sexual abuse -- has occurred and not whether a complex medical condition exists. *Id.* at 134. That conduct, the court explained, is itself not complicated, and "the ability to determine its occurrence often is a matter within a lay person's competence[,]" rather than one of medical expertise. *Id.*

The court then identified and scrutinized the steps that the physician, an employee of the KIDS Center, had used to reach her diagnosis -- taking the child's history, interviewing the child, conducting a physical exam, and then following guidelines to reach a team diagnosis. *Id.* at 135. For each step, the court considered the information adduced and whether the inferences drawn and the methodology used were

[9] The seven primary factors listed in *Brown* are: (1) the technique's general acceptance in the field; (2) the expert's qualifications and stature; (3) the use which has been made of the technique; (4) the potential rate of error; (5) the existence of specialized literature; (6) the novelty of the invention; and (7) the extent to which the technique relies on the subjective interpretation of the expert. 297 Or at 417. The four factors listed in *O'Key* are: (1) whether the theory or technique can and has been tested; (2) whether the theory or technique has been subject to peer review and publication; (3) the known or potential rate of error; and (4) the degree of acceptance in the relevant scientific community. 321 Or at 303-04.

standard, were supported by research or peer-reviewed literature, and were conducted according to guidelines or protocols. *Id.* at 135-37. For instance, the court determined that gathering a patient's history from family members and medical documents is "a standard feature of medicine[,]" but did not stop there. *Id.* at 135. The court discussed the fact that the child's history had disclosed instances of sexualized behaviors that, according to specific research cited by the physician, were correlated with sexual abuse, and it explained that the defendant had not contested those findings. The court determined that interviewing the patient is also "a standard component of a medical diagnosis[,]" but went on to describe the procedure that the KIDS Center used to enhance the accuracy of the information obtained from the patient. *Id.* at 136. The court also recognized that, in evaluating the data that it had gathered, the KIDS Center had followed nationally accepted protocols. *Id*. The court ultimately concluded that, "[c]onsidering the totality of the procedures that the KIDS center used and based on the record developed in this case," the diagnosis of child sexual abuse was scientifically valid under OEC 702. *Southard*, 347 Or at 137.

Scientific validity was not, however, the end of the inquiry. The court proceeded to consider the other two criteria that it had determined were necessary for the admissibility of scientific evidence -- whether the diagnosis was relevant under OEC 401, and whether its probative value was outweighed by unfair prejudice under OEC 403. The court concluded that the diagnosis was relevant and that it had some probative value; however, it decided that the marginal value of the diagnosis was slight. *Id.* at 140. The court reasoned that the diagnosis hinged on the physician's determination that the child

truthfully had reported sexual abuse by the defendant and that the jury was equally capable of determining whether the child was telling the truth. Conversely, the risk of prejudice was "great": the diagnosis came from a "credentialed expert, surrounded with the hallmarks of the scientific method," and thereby created a risk that the jury "may be overly impressed or prejudiced by a perhaps misplaced aura of reliability or validity of the evidence." *Id*. at 140-41 (quoting *Brown*, 297 Or at 439) (internal quotation marks and modifications omitted). Based on that assessment, the court held that the diagnosis of sexual abuse was not admissible. *Id.* at 143.

The mode of analysis that this court used in *Southard* is also applicable here. Although physical evidence was available in this case, Skinner did not specifically identify that evidence as a basis for her conclusion that defendant had caused C's injuries. Like the expert in *Southard*, Skinner determined from C's history whether conduct (physical abuse by defendant) had occurred, not whether a complex medical condition existed. Skinner also determined a matter that is ordinarily within a jury's competence rather than one of medical expertise -- the identity of a perpetrator of a crime.

We begin, then, as the court did in *Southard*, with the second of the criteria that it outlined -- whether the diagnosis at issue possesses sufficient indicia of scientific validity to be helpful to the jury under OEC 702 -- and examine the scientific methodology that Skinner described. 347 Or at 135. As noted, Skinner is a physician with significant experience in diagnosing and testifying to diagnoses of child abuse. She testified that child abuse is a recognized pediatric diagnosis and that "a lot" of literature exists on the topic. She explained that, in this case, in accordance with her typical

practice, she had examined C and read his chart, and also had considered C's "history," which consisted of recorded interviews with law enforcement and a conversation with a detective who had interviewed defendant. Skinner then engaged in a process of "differential diagnosis" and reached her ultimate conclusion that C had been "physically abused by [defendant]."

The focus of Skinner's testimony was on the scientific validity of her conclusion that C had been physically abused, not on her additional conclusion -- as stated in her written report -- that C had been abused *by defendant*.[10] As to that conclusion, the state acknowledges that Skinner's testimony was insufficient to satisfy the requirements of OEC 702. We agree. Skinner did not establish that she was qualified to identify the perpetrator of inflicted injury. Although she testified that it is important to determine the individual who inflicted the injury "if able" and that, when a responsible person has been identified, CARES makes treatment recommendations accordingly, Skinner did not testify that an accepted methodology exists for engaging in that analysis or making those recommendations. Neither did Skinner indicate whether the steps that she took in reaching her diagnosis that "[C] was physically abused by [defendant]" were

[10] In this court, defendant does not explicitly address the Court of Appeals' conclusion that, when limited to a diagnosis that C had been physically abused, Skinner's diagnosis was scientifically valid. Consequently, we do not decide whether the Court of Appeals was correct in that regard. We do note, however, that such a diagnosis also must meet the criteria for admissibility set forth in *Southard.* That is, a party seeking admission of a diagnosis of child abuse must identify the methodology and the specific steps that the expert used to arrive at a diagnosis of child abuse and demonstrate the scientific validity of each. A trial court considering admission of such a diagnosis also must consider its relevancy and whether its probative value outweighs the dangers identified in OEC 403. *See Southard*, 347 Or at 133 (describing those criteria).

standard in the profession, supported by research or peer-reviewed literature, or were conducted according to accepted guidelines or protocols.

Certainly, conducting a physical exam and reviewing medical records such as those that Skinner reviewed are accepted medical procedures. And, as defendant acknowledges, a physical examination may reveal individual characteristics that, when matched with other evidence such as teeth marks or blood stains, may reveal the identity of the perpetrator of inflicted injury. *See State v. Lyons*, 324 Or 256, 279, 924 P2d 802 (1996) (DNA evidence linked defendant with hairs left on the victim's body). It is also true, as this court stated in *Southard,* that gathering a patient's history from family members and medical documents is "a standard feature of medicine," applicable in the treatment of abuse. 347 Or at 135. *See also* Thomas D. Lyon, Elizabeth E. Gilles, M.D. & Larry Cory, *Medical Evidence of Physical Abuse in Infants and Young Children*, 28 Pac L J 93, 96 (1996) (doctors use combination of history, physical examination, and laboratory and imaging findings in diagnosing child abuse). In this case, however, Skinner's testimony did not identify any aspect of C's physical injuries as support for her conclusion that defendant had caused those injuries, nor did Skinner testify that physicians typically use data such as the data that Skinner used in this case -- including information obtained from law enforcement -- to diagnose the identity of perpetrators of physical abuse.

Skinner's testimony also failed to discuss whether it is standard practice for physicians to use "differential diagnosis" to determine the identity of child abuse perpetrators. This court has recognized "differential diagnosis" as an accepted technique

in which

> "'a doctor develops a list of all diseases that might cause a patient's symptoms and then, by a process of elimination, narrows the list.' [It is] a process by which a medical expert first 'rules in' various potential causes and then 'rules out' those causes one by one (to the extent possible) by analyzing the patient's condition until the expert can identify the likely cause from among those remaining. Thus, 'differential diagnosis' is a general description of a methodology or process accepted by the medical community as a means of determining causation (or condition), rather than a specific scientific technique or test * * *."

Marcum, 345 Or at 247 (citations omitted). However, as this court explained in *Marcum*, "although differential diagnosis *can* be the basis for admissible expert testimony as to medical causation, testimony is not admissible simply because the expert conducted a differential diagnosis." *Id.* at 247-48.

In *Marcum*, the expert used differential diagnosis to determine whether a patient's medical condition had been caused by an injection of gadolinium. The court sustained the admissibility of the expert's opinion, not because the expert had utilized the process of differential diagnosis, but because he had "made an adequate showing of a scientifically valid basis for 'ruling in' gadolinium as a potential cause of [the patient's] symptoms, as well as for 'ruling out' a number of the other possible causes of [the patient's] injury." *Id.* at 252-53. Thus, although it is not inconceivable that a physician could use differential diagnosis to determine the cause of a child's injuries,[11] a physician

[11] A textbook recently published by the American Academy of Pediatrics and cited in the state's brief describes differential diagnosis as one of the four steps in determining whether a child's injuries were intentionally caused. Those steps are: (1) recognizing trauma; (2) reflecting on the collective experience with such trauma; (3) looking for informative patterns and drawing mechanistic inferences; and (4) presenting a good framework for both discussing known diagnostic pitfalls and thoughtfully

who does so must explain the potential causes of the injury and also demonstrate the scientific bases for those decisions along the way.

In this case, Skinner described C's injuries and concluded that it was likely that C had been subjected to more than one impact and that C's skull fracture had been caused by "significant force." Skinner also described the history that she had obtained and her conclusion that, based on C's combination of injuries, she did not believe that defendant was telling "the whole truth" when he stated that he had thrown C into the dresser. Skinner's testimony did not, however, complete the thought. That is, the testimony did not identify the potential causes of C's injuries nor explain how or why she had ruled one of these causes in, and others out. Although Skinner stated that she had considered defendant's statements in reaching her diagnosis, her testimony did not explain the scientific basis, if any, for concluding, from the fact of his varying accounts, that defendant was the perpetrator of C's injuries. And, Skinner's testimony did not describe, as *Southard* requires, the standard practices, research, literature, guidelines, or protocols that justified her reasoning.

To conclude that scientific evidence is sufficiently reliable to be admissible under OEC 702, it is not enough that there are experts on a subject, that the person who testifies is credible, or that evidence takes the form of a medical record. Neither is it

---

constructing and resolving *differential diagnoses* in individual cases. Robert M. Reece & Cindy W. Christian eds, *Child Abuse: Medical Diagnosis & Management* 228 (3d ed 2009). The state acknowledges, however, that neither that text nor any other research or literature supports the idea that a diagnosis of physical abuse includes the identity of the perpetrator.

enough that "a lot" of literature exists on the subject or that the expert gathers the information to which that literature refers and conducts a differential diagnosis. Instead, the expert must explain more precisely his or her own expertise, how he or she gathers and uses particular information, how that information informs his or her conclusions, and the scientific basis for the steps that he or she takes in that process. Although Skinner established that she was qualified to assess whether a child has been subjected to abuse, her testimony she did not sufficiently describe the techniques that she had used to identify the perpetrator. And, to the extent that Skinner's testimony did describe her techniques, it failed to demonstrate that they were generally accepted, consistent with recognized safeguards to increase diagnostic accuracy, or supported by literature in the field. *See Southard*, 347 Or at 137 (applying that analysis). Accordingly, Skinner's ultimate conclusion that "[C] was abused by [defendant]" did not satisfy the requirements of OEC 702, the second of the three criteria identified in *Southard*. Because Skinner's conclusion was inadmissible under OEC 702, we need not consider whether it satisfied any of the remaining *Southard* criteria.

The remaining issue for our consideration is whether the trial court's error in admitting Skinner's diagnosis was harmless. The state does not urge us to adopt the Court of Appeals' reasoning that defendant's identity was not at issue in this case; instead, the state alerts us to that court's mistake and points out that, at trial, defendant adduced evidence that aunt had inflicted the injury that had caused C's fractured skull. The state continues to urge, however, that the trial court's admission of Skinner's diagnosis was harmless error. The state specifically argues that the jury would have understood that

Skinner's conclusion that defendant had been the perpetrator of C's injuries was nothing more than a reflection of the facts known to her at the time that she had made her report. We are not persuaded. For the reasons that follow, we cannot conclude that there was little likelihood that Skinner's diagnosis affected the jury's verdict.

Under Article VII (Amended), section 3, of the Oregon Constitution,[12] an evidentiary error is "harmless" and may not result in reversal if there is little likelihood that it affected the verdict. *State v. Davis*, 351 Or 35, 261 P3d 1197 (2011). The appropriate inquiry is not whether a reviewing court regards the evidence of guilt as substantial and compelling, but whether the trial court's error was likely to have influenced the verdict as a matter of law. *Id*. at 60-62. In undertaking that analysis, the reviewing court must consider a trial court's evidentiary error in context and examine the nature and effect of the excluded and the admitted evidence. *Id.* at 62.

In a different case, *State v. Davis*, 336 Or 19, 77 P3d 1111 (2003), this court determined that the erroneously excluded evidence at issue went "directly to the heart of defendant's factual theory of the case" and that it was "influential because it tended to complete the picture of defendant's version of the events." *Id*. at 34. The court observed that nothing about the context of the legal error indicated that the jury "would have regarded the excluded evidence as duplicative or unhelpful to its deliberations." *Id*.

---

[12] Article VII (Amended), section 3, provides, in part:

> "If the supreme court shall be of opinion * * * that the judgment of the court appealed from was such as should have been rendered in the case, such judgment shall be affirmed, notwithstanding any error committed during the trial * * *."

at 33. Consequently, the court held that exclusion of the evidence was not harmless. *Id.* at 35.

The court reached a similar conclusion in *State v. Willis*, 348 Or 566, 236 P3d 714 (2010), a case in which the trial court erred in admitting a scientific report that had identified a substance seized from defendant as methamphetamine. The court reasoned that the report went to the "heart of * * * the case," as the state was required to prove that the defendant had unlawfully possessed methamphetamine rather than some other substance. *Id*. at 572 (citations omitted). Scientific evidence, explained the court, is powerful, in that it can strongly support or rule out a party's claims. It can either "turn suspicion into probability, or it can establish that the substance was not the specific controlled substance alleged in the indictment[.]" *Id*. at 573. The court applies the harmless error rule expecting that jurors will rely on scientific evidence: "Any juror would wish to have the scientific answer, and could be expected to give it weight." *Id*.

To convict defendant of second-degree assault in this case, the jury had to find that defendant had caused "serious physical injury" to C, defined as injury that "creates a substantial risk of death." ORS 163.175; ORS 161.015(8). To prove that element of the charge, the state adduced evidence that C's skull fracture had created a substantial risk of death and that defendant had caused that injury. Defendant's counter-argument was that it was not he, but aunt, who had fractured C's skull. Skinner's report directly addressed that issue, concluding that defendant had caused all C's injuries that she described, including the skull fracture.

Skinner testified as a qualified expert on the issue of child abuse. Although

it is possible that the jurors could have discounted her conclusion as based on insufficient information, it is just as likely -- if not more likely -- that they credited Skinner's expertise. Skinner's testimony did not qualify her previous diagnosis or explain its limitations. Skinner testified that an important part of her diagnostic process was to determine the identity of the individual who had inflicted the injury. The state then offered her report, which identified defendant as the perpetrator of child abuse, and it was received into evidence. In so doing, the state encouraged the jury to read the report as indicating Skinner's present views, arguing in closing that "[aunt] didn't cause any of these injuries. * * * [Y]ou had the medical reports. Take another look at that. [Skinner's] final conclusion is that [C] was physically abused by [defendant]." We conclude that, as to the conviction of second-degree assault, Skinner's conclusion that defendant had caused all C's injuries went to the heart of a disputed issue, and its admission therefore was not harmless error.

Our analysis as to defendant's other convictions is different, however. The two charges of first-degree criminal mistreatment[13] and the charge of third-degree

---

[13] ORS 163.205 provides, in part:

"(1) A person commits the crime of criminal mistreatment in the first degree if:

"(a) The person * * * having assumed the permanent or temporary care, custody or responsibility for the supervision of another person, intentionally or knowingly withholds necessary and adequate * * * medical attention from that other person; or

"(b) The person * * * having assumed the permanent or temporary care, custody or responsibility for the supervision of a dependent person or elderly person, intentionally or knowingly:

assault[14] did not require proof that defendant had caused serious physical injury that created a substantial risk of death. To prove those charges, it was sufficient for the state to establish that defendant had caused C some "physical injury." Defendant admitted that he was responsible for caring for C on the night of May 12, 2005, and that he had caused the injury to C's forehead. Therefore, on the charges of first-degree criminal mistreatment and third-degree assault, Skinner's conclusion that defendant was the cause of C's injuries addressed a factual issue that defendant did not contest.

Skinner's diagnosis, however, was not limited to determining the cause of C's injuries. Skinner's diagnosis included the conclusion that C's injuries were the result of child abuse. That aspect of Skinner's diagnosis addressed a second disputed issue -- whether defendant's actions were intentional or accidental. If we could separate Skinner's diagnosis into two parts, as the Court of Appeals did, we potentially could affirm defendant's convictions for first-degree criminal mistreatment and third-degree assault, in accordance with that court's reasoning. However, that was not the manner in which the case was tried, and we will not speculate about what may have happened if the case had

---

(A) Causes physical injury or injuries to the dependent person or elderly person[.]"

[14] ORS 163.165 provides, in part:

"(1) A person commits the crime of assault in the third degree if the person:

"* * * * *

"(h) Being at least 18 years of age, intentionally or knowingly causes physical injury to a child 10 years of age or younger[.]"

been tried otherwise. Because we cannot conclude that there was little likelihood that the admission of Skinner's diagnosis did not affect *all* of defendant's convictions, we also cannot conclude that the trial court's error was harmless as to the convictions for first-degree mistreatment and third-degree assault.

The decision of the Court of Appeals is reversed. The judgment of the circuit court is reversed, and the case is remanded to the circuit court for further proceedings.