

**IN THE SUPREME COURT OF APPEALS OF WEST VIRGINIA**

**January 2002 Term**

**FILED**

**June 19, 2002**  
RORY L. PERRY II, CLERK  
SUPREME COURT OF APPEALS  
OF WEST VIRGINIA

**No. 30018**

**RELEASED**

**June 19, 2002**  
RORY L. PERRY II, CLERK  
SUPREME COURT OF APPEALS  
OF WEST VIRGINIA

**STATE OF WEST VIRGINIA,  
Plaintiff Below, Appellee,**

**V.**

**SAMUEL AUBREY LEEP,  
Defendant Below, Appellant.**

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**Appeal from the Circuit Court of Wayne County  
Honorable Darrell Pratt, Judge  
Criminal Action No. 98-F-036**

**REVERSED AND REMANDED**

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**Submitted: February 6, 2002  
Filed: June 19, 2002**

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**CHIEF JUSTICE DAVIS delivered the Opinion of the Court.**

**JUSTICES STARCHER and ALBRIGHT concur in part, and dissent in part, and reserve the right to file separate opinions.**

**JUSTICE MAYNARD concurs and reserves the right to file a concurring opinion.**

## SYLLABUS BY THE COURT

1. “In analyzing the admissibility of expert testimony under Rule 702 of the West Virginia Rules of Evidence, the trial court’s initial inquiry must consider whether the testimony is based on an assertion or inference derived from the scientific methodology. Moreover, the testimony must be relevant to a fact at issue. Further assessment should then be made in regard to the expert testimony’s reliability by considering its underlying scientific methodology and reasoning. This includes an assessment of (a) whether the scientific theory and its conclusion can be and have been tested; (b) whether the scientific theory has been subjected to peer review and publication; (c) whether the scientific theory’s actual or potential rate of error is known; and (d) whether the scientific theory is generally accepted within the scientific community.” Syllabus point 2, *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993).

2. “The first and universal requirement for the admissibility of scientific evidence is that the evidence must be both ‘reliable’ and ‘relevant.’ Under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993), *cert. denied*, [511] U.S. [1129], 114 S. Ct. 2137, 128 L. Ed. 2d 867 (1994), the reliability requirement is met only by a finding by the trial court under Rule 104(a) of the West Virginia Rules of Evidence that the *scientific* or technical theory which is the basis for the test results is indeed ‘scientific, technical, or specialized knowledge.’ The trial court’s determination regarding whether the scientific

evidence is properly the subject of scientific, technical, or other specialized knowledge is a question of law that we review *de novo*. On the other hand, the relevancy requirement compels the trial judge to determine, under Rule 104(a), that the scientific evidence ‘will assist the trier of fact to understand the evidence or to determine a fact in issue.’ W. Va. R. Evid. 702. Appellate review of the trial court’s rulings under the relevancy requirement is under an abuse of discretion standard. *State v. Beard*, 194 W. Va. 740, 746 [n.5], 461 S.E.2d 486, 492 [n.5] (1995).” Syllabus point 3, *Gentry v. Mangum*, 195 W. Va. 512, 466 S.E.2d 171 (1995).

3. “The question of admissibility under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993), *cert[.] denied*, [511] U.S. [1129], 114 S. Ct. 2137, 128 L. Ed. 2d 867 (1994)[,] only arises if it is first established that the testimony deals with ‘scientific knowledge.’ ‘Scientific’ implies a grounding in the methods and procedures of science while ‘knowledge’ connotes more than subjective belief or unsupported speculation. In order to qualify as ‘scientific knowledge,’ an inference or assertion must be derived by the scientific method. It is the circuit court’s responsibility initially to determine whether the expert’s proposed testimony amounts to ‘scientific knowledge’ and, in doing so, to analyze not what the experts say, but what basis they have for saying it.” Syllabus point 6, *Gentry v. Mangum*, 195 W. Va. 512, 466 S.E.2d 171 (1995).

4. “When scientific evidence is proffered, a circuit court in its ‘gatekeeper’

role under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993), *cert[.] denied*, [511] U.S. [1129], 114 S. Ct. 2137, 128 L. Ed. 2d 867 (1994), must engage in a two-part analysis in regard to the expert testimony. First, the circuit court must determine whether the expert testimony reflects scientific knowledge, whether the findings are derived by scientific method, and whether the work product amounts to good science. Second, the circuit court must ensure that the scientific testimony is relevant to the task at hand.” Syllabus point 4, *Gentry v. Mangum*, 195 W. Va. 512, 466 S.E.2d 171 (1995).

5. “‘The admissibility of testimony by an expert witness is a matter within the sound discretion of the trial court, and the trial court’s decision will not be reversed unless it is clearly wrong.’ Syllabus Point 6, *Helmick v. Potomac Edison Co.*, 185 W. Va. 269, 406 S.E.2d 700 (1991), *cert. denied*, 502 U.S. 908, 112 S. Ct. 301, 116 L. Ed. 2d 244 (1991).” Syllabus point 1, *West Virginia Division of Highways v. Butler*, 205 W. Va. 146, 516 S.E.2d 769 (1999).

6. “As a general rule, West Virginia courts are not permitted to comment on the weight of the evidence[.]” Syllabus point 3, in part, *State v. Spadafore*, 159 W. Va. 236, 220 S.E.2d 655 (1975).

7. “‘With regard to evidence bearing on any material issue, including the credibility of witnesses, the trial judge should not intimate any opinion, as these matters are within the exclusive province of the jury.’ Syllabus Point 4, in part, *State v. Burton*, 163 W. Va. 40, 254 S.E.2d 129 (1979).” Syllabus point 5, *State v. Harris*, 169 W. Va. 150, 286 S.E.2d 251 (1982).

8. “‘The trial judge in a criminal trial must consistently be aware that he occupies a unique position in the minds of the jurors and is capable, because of his position, of unduly influencing jurors in the discharge of their duty as triers of the facts. This Court has consistently required trial judges not to intimate an opinion on any fact in issue in any manner. In criminal cases, we have frequently held that conduct of the trial judge which indicates his opinion on any material matter will result in a guilty verdict being set aside and a new trial awarded.’” Syllabus point 4, *State v. Wotring*, 167 W. Va. 104, 279 S.E.2d 182 (1981).

9. “‘“In the trial of a criminal case the jurors, not the court, are the triers of the facts, and the court should be extremely cautious not to intimate in any manner, by word, tone, or demeanor, his opinion upon any fact in issue.” Pt. 7, Syl., *State v. Austin*, 93 W. Va. 704, 117 S.E. 607 [(1923)]’, Syllabus, *State v. Perkins*, 130 W. Va. 708[, 45 S.E.2d 17] (1947).” Syllabus point 3, *State v. Crockett*, 164 W. Va. 435, 265 S.E.2d 268 (1979)

10. A trial court judge should refrain from commenting to the jury upon the

reliability of scientific evidence that has been admitted pursuant to *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993), and *Gentry v. Mangum*, 195 W. Va. 512, 466 S.E.2d 171 (1995).

**Davis, Chief Justice:**

The defendant below and appellant herein, Samuel Aubrey Leep [hereinafter referred to as “Mr. Leep”], appeals his convictions by a Wayne County jury of one count of first degree sexual assault,<sup>1</sup> one count of first degree sexual abuse,<sup>2</sup> and two counts of sexual abuse by a parent,<sup>3</sup> which convictions resulted from an alleged encounter between Mr. Leep and his then six-year-old daughter. Following the jury trial, these convictions were memorialized in a trial order entered January 3, 2000, by the Circuit Court of Wayne County. Thereafter, the circuit court, by order entered February 6, 2001,<sup>4</sup> sentenced Mr. Leep to 15-35 years for his sexual assault conviction, 1-5 years for his sexual abuse conviction, and two terms of 10-20 years for each of his sexual abuse by a parent convictions, with all of these sentences to run concurrently.

From the trial and sentencing orders, Mr. Leep appeals to this Court claiming that the trial court erred by (1) employing the wrong standard to determine the admissibility of EIA test results;<sup>5</sup> (2) admitting these test results into evidence; and (3) improperly commenting to the jury as to the reliability of such scientific evidence. Upon a review of the

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<sup>1</sup>*See infra* note 12.

<sup>2</sup>*See infra* note 13.

<sup>3</sup>*See infra* note 14.

<sup>4</sup>*See infra* note 16 and accompanying text.

<sup>5</sup>*See infra* note 9 and accompanying text.

parties' arguments, the record designated for appellate review, and the pertinent authorities, we reverse the verdict of the Wayne County jury and the resultant circuit court orders, and remand this case for further proceedings consistent with this Opinion. Although we find no error attending the trial court's admission of the State's EIA test results evidence, we conclude that the court's *sua sponte* comments regarding the reliability thereof, which comments immediately followed the testimony of Mr. Leep's expert who questioned such reliability, constitutes reversible error.

## I.

### FACTUAL AND PROCEDURAL HISTORY

The evidence presented to the jury suggests the following facts. Mr. Leep and his wife were married in 1990, with two children being born of the marriage: a daughter, S.L.,<sup>6</sup> in 1991, and a son, R.L., in 1993. Thereafter, Mr. and Mrs. Leep separated and ultimately were divorced by final order entered March 18, 1997. During the ensuing custody proceedings, it was determined that Mr. Leep was the primary caretaker of the couple's children, and custody of S.L. and R.L. was awarded to him. Visitation was granted to Mrs. Leep.

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<sup>6</sup>Given the sensitive nature of this case, initials will be used to protect the names of the children involved herein. See, e.g., *In re Emily B.*, 208 W. Va. 325, 329 n.1, 540 S.E.2d 542, 546 n.1 (2000); *In re Michael Ray T.*, 206 W. Va. 434, 437 n.1, 525 S.E.2d 315, 318 n.1 (1999); *State ex rel. Diva P. v. Kaufman*, 200 W. Va. 555, 559 n.2, 490 S.E.2d 642, 646 n.2 (1997); *In re Tiffany Marie S.*, 196 W. Va. 223, 226 n.1, 470 S.E.2d 177, 180 n.1 (1996).



Following the divorce's finalization, Mrs. Leep visited her six-year-old daughter, S.L., at school on May 6, 1997, and conversed with her for approximately one-half hour. The next day, May 7, 1997, S.L. disclosed to her teacher that she and her father were taking a nap, and "when she woke up, she was on top of him and her underwear was pulled down." S.L.'s teacher relayed this information to the school's principal who, in turn, reported the incident to the Wayne County Department of Health and Human Resources [hereinafter referred to as "D.H.H.R."].<sup>7</sup> Child Protective Services [hereinafter referred to as "C.P.S."] then began an investigation of these charges, in late May, 1997, and interviewed S.L. in accordance therewith.

Subsequently, on June 6, 1997, during an overnight visitation between the children and Mrs. Leep, S.L. told her mother of the alleged misconduct that she reported to her teacher in early May.<sup>8</sup> Mrs. Leep then transported S.L. to Cabell-Huntington Hospital for a medical examination. During this exam, no abrasions or lacerations consistent with sexual assault or abuse were observed, however a test<sup>9</sup> for the sexually transmitted disease, chlamydia,

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<sup>7</sup>Mr. Leep alleges that S.L.'s principal, in her report to D.H.H.R., added additional allegations that were not made by S.L., *e.g.*, that he was unclothed at the time of the alleged misconduct.

<sup>8</sup>It is unclear from the record whether Mrs. Leep first learned of the alleged improprieties during her conversation with S.L. at school, on May 6, 1997, or whether this revelation took place during visitation at her home on June 6, 1997.

<sup>9</sup>The specific test employed by the hospital for this purpose was an EIA, or enzyme immunoassay, test. Another test, which involves cultivating a culture from the patient's sample cells, is reported to be a more accurate determinant of the presence of chlamydia, while the EIA test performed in this case has a greater likelihood of returning a  
(continued...)

returned a positive result.<sup>10</sup> This test result, dated June 9, 1997, suggested the likelihood that penetration had occurred as that is the most likely method for the transmission of this disease. Following this positive result, a repeat test was performed on June 11, 1997, which re-test also returned a positive result.<sup>11</sup>

In July, 1998, Mr. Leep was indicted by a Wayne County grand jury on the charges of first degree sexual assault,<sup>12</sup> first degree sexual abuse,<sup>13</sup> and sexual abuse by a

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<sup>9</sup>(...continued)  
false-positive result. Mr. Leep's complaints regarding the questionable reliability of these test results are discussed in further detail in Section III.B., *infra*.

<sup>10</sup>A different test for the sexually transmitted disease gonorrhea had a negative result.

<sup>11</sup>As a result of its ongoing investigation, C.P.S. filed an emergency petition for custody on June 26, 1997, which was granted. The children were ultimately transferred to Mrs. Leep's custody on October 17, 1997.

<sup>12</sup>The elements of first degree sexual assault are:

(a) A person is guilty of sexual assault in the first degree when:

(1) Such person engages in sexual intercourse or sexual intrusion with another person and, in so doing:

(i) Inflicts serious bodily injury upon anyone; or

(ii) Employs a deadly weapon in the commission of the act; or

(2) Such person, being fourteen years old or more, engages in sexual intercourse or sexual intrusion with another

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parent.<sup>14</sup> A trial was had on these charges in January, 1999, but because the jury was

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<sup>12</sup>(...continued)

person who is eleven years old or less.

(b) Any person who violates the provisions of this section shall be guilty of a felony, and, upon conviction thereof, shall be imprisoned in the penitentiary not less than fifteen nor more than thirty-five years, or fined not less than one thousand dollars nor more than ten thousand dollars and imprisoned in the penitentiary not less than fifteen nor more than thirty-five years.

W. Va. Code § 61-8B-3 (1991) (Repl. Vol. 1997).

<sup>13</sup>W. Va. Code § 61-8B-7 (1984) (Repl. Vol. 2000) defines first degree sexual abuse as

(a) A person is guilty of sexual abuse in the first degree when:

(1) Such person subjects another person to sexual contact without their consent, and the lack of consent results from forcible compulsion; or

(2) Such person subjects another person to sexual contact who is physically helpless; or

(3) Such person, being fourteen years old or more, subjects another person to sexual contact who is eleven years old or less.

(b) Any person who violates the provisions of this section shall be guilty of a felony, and, upon conviction thereof, shall be imprisoned in the penitentiary not less than one year nor more than five years, or fined not more than ten thousand dollars and imprisoned in the penitentiary not less than one year nor more than five years.

<sup>14</sup>The crime of sexual abuse by a parent is committed when the following conditions are met:

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<sup>14</sup>(...continued)

(a) In addition to any other offenses set forth in this code, the Legislature hereby declares a separate and distinct offense under this subsection, as follows: If any parent, guardian or custodian of a child under his or her care, custody or control, shall engage in or attempt to engage in sexual exploitation of, or in sexual intercourse, sexual intrusion or sexual contact with, a child under his or her care, custody or control, notwithstanding the fact that the child may have willingly participated in such conduct, or the fact that the child may have consented to such conduct or the fact that the child may have suffered no apparent physical injury or mental or emotional injury as a result of such conduct, then such guardian or custodian shall be guilty of a felony, and, upon conviction thereof, shall be imprisoned in the penitentiary not less than five nor more than fifteen years, or fined not less than five hundred nor more than five thousand dollars and imprisoned in the penitentiary not less than five years nor more than fifteen years.

(b) If any parent, guardian or custodian shall knowingly procure another person to engage in or attempt to engage in sexual exploitation of, or sexual intercourse, sexual intrusion or sexual contact with, a child under the care, custody or control of such parent, guardian or custodian when such child is less than sixteen years of age, notwithstanding the fact that the child may have willingly participated in such conduct or the fact that the child may have suffered no apparent physical injury or mental or emotional injury as a result of such conduct, such parent, guardian or custodian shall be guilty of a felony and, upon conviction thereof, shall be imprisoned in the penitentiary not less than one year nor more than five years, or fined not less than one thousand nor more than ten thousand dollars and imprisoned in the penitentiary not less than one year nor more than five years.

(c) If any parent, guardian or custodian shall knowingly procure another person to engage in or attempt to engage in sexual exploitation of, or sexual intercourse, sexual intrusion or sexual contact with, a child under the care, custody or control of

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unable to reach a verdict, a mistrial resulted.

Prior to the second trial on these charges, Mr. Leep's counsel, on June 22, 1999, filed a motion in limine requesting the court to exclude from evidence "[a]ny notes, reports, testimony or any reference to the chlamydia antibody testing performed on the alleged victim that is the subject of this indictment." In support of his motion, Mr. Leep averred that

the above-referenced [materials] are outside the C.D.C.'s [United States Centers for Disease Control's] national guidelines that have been established for laboratory testing in cases of suspected sexual abuse and that the test used (non-cultured) has a very high possibility of false-positives and the standard calls for all positive (non-culture) tests to be verified with a second test based on a different principal and are thus without adequate foundation or scientific support and are therefore inadmissible as evidence.

A hearing was had on the motion during which both parties presented expert testimony in

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<sup>14</sup>(...continued)

such parent, guardian or custodian when such child is sixteen years of age or older, notwithstanding the fact that the child may have consented to such conduct or the fact that the child may have suffered no apparent physical injury or mental or emotional injury as a result of such conduct, then such parent, guardian or custodian shall be guilty of a felony and, upon conviction thereof, shall be confined in the county jail not less than six months nor more than one year.

(d) The provisions of this section shall not apply to a custodian whose age exceeds the age of the child by less than four years.

W. Va. Code § 61-8D-5 (1991) (Repl. Vol. 1997).

support of their positions.<sup>15</sup> The trial court ruled on Mr. Leep's motion at the beginning of the second trial, on December 7, 1999, outside of the hearing of the jury, and determined that such evidence would be admissible:

A prior motion was made by the defendant to exclude any evidence from the State's expert with regard to the Chlamydia testing and results. The defense has brought in substantial evidence in his motion in limine to challenge the admissibility of the State's evidence on the basis it did not fit the national guidelines. It's my belief that both methods have been testified to by the experts from both sides of this case. We have a reasonable basis in the scientific community and both are accepted by the scientific community. The procedures and the methods used by either or both goes to the weight and credibility that should be given to the methods used in the Chlamydia testing. Therefore, I think it's a factual issue for the jury to determine and can be handled and addressed appropriately on cross examination and rebuttal with the expert that the defense has presented. Therefore, I will rule that the State's testing is admissible. It may be cross examined and challenge[d] through rebuttal of an expert witness as to its weight and credibility.

The second trial on the aforementioned charges resulted in a December 8, 1999, jury verdict of guilty, and corresponding convictions of one count of first degree sexual assault, one count of first degree sexual abuse, and two counts of sexual abuse by a parent. These convictions were memorialized in the circuit court's January 3, 2000, trial order. By

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<sup>15</sup>At the conclusion of that hearing, held on September 14, 1999, the trial judge indicated that he would "review the Frye standards and issue [his] ruling . . . ." See *infra* Section III.A., discussing the *Frye* standard for the admission of scientific evidence.

sentencing order entered May 22, 2000,<sup>16</sup> the circuit court sentenced Mr. Leep to 15-35 years for his sexual assault conviction, 1-5 years for his sexual abuse conviction, and two terms of 10-20 years for each of his convictions of sexual abuse by a parent, with all sentences to run concurrently. From these orders, Mr. Leep appeals to this Court.

## II.

### STANDARD OF REVIEW

The instant appeal presents numerous assignments of error for our consideration and decision. Given the diversity of issues presented, and the various standards of review applicable thereto, specific standards of review will be discussed in conjunction with the alleged errors to which they pertain. Generally, however, verdicts rendered by a jury in criminal cases are accorded great deference:

“A reviewing court should not reverse a criminal case on the facts which have been passed upon by the jury, unless the court can say that there is reasonable doubt of guilt and that the verdict must have been the result of misapprehension, or passion and prejudice.” Syllabus point 3, *State v. Sprigg*, 103 W. Va. 404, 137 S.E. 746 (1927).

Syl. pt. 1, *State v. Easton*, 203 W. Va. 631, 510 S.E.2d 465 (1998). Mindful of this general standard of review, we proceed to consider the parties’ arguments.

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<sup>16</sup>On February 6, 2001, the circuit court re-sentenced Mr. Leep in accordance with this initial sentencing order in order to preserve his period for appeal to this Court. The court based its decision to re-sentence Mr. Leep upon a finding of good cause.

### III.

#### DISCUSSION

On appeal to this Court, Mr. Leep raises three assignments of error: (1) the trial court employed the wrong standard to determine the admissibility of EIA test results; (2) the trial court admitted the EIA test results into evidence; and (3) the trial court improperly commented to the jury as to the reliability of such scientific evidence. We will address each of these issues in turn.

##### *A. Standard for Determining Admissibility of Scientific Evidence*

Mr. Leep first complains that the trial court employed the wrong standard to determine the admissibility of certain scientific evidence proffered by the State. The scientific evidence in issue is EIA test results demonstrating that Mr. Leep's daughter tested positive for the sexually transmitted disease chlamydia. In this assignment of error, Mr. Leep contends that, in determining the admissibility of such test results, the trial court erroneously employed the *Frye*<sup>17</sup> standard which has since been overruled by *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993). The State responds that the trial court's use of the overruled *Frye* standard does not constitute reversible error as that prior standard is more stringent than the current admissibility criteria enumerated in *Daubert*, *Wilt*, and Rule

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<sup>17</sup>*Frye v. United States*, 293 F. 1013, 54 App. D.C. 46 (1923).



702 of the West Virginia Rules of Evidence. Thus, the State continues, if the trial court deemed the EIA test results to be admissible under the more demanding *Frye* standard, they most certainly would have been admissible pursuant to *Daubert*, *Wilt*, and W. Va. R. Evid. 702.

To answer this query, it is helpful to examine the historical progression of the admissibility of scientific evidence and the standards developed therefor. The seminal case<sup>18</sup> on the admissibility of scientific evidence is *Frye v. United States*, 293 F. 1013, 54 App. D.C. 46 (1923), wherein the court succinctly stated:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, *the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.*

*Id.*, 293 F. at 1014, 54 App. D.C. at 47 (emphasis added). This Court later adopted the *Frye* standard in Syllabus point 7 of *State v. Clawson*, 165 W. Va. 588, 270 S.E.2d 659 (1980), holding that “[i]n order for a scientific test to be initially admissible, there must be general acceptance of the scientific principle which underlies the test.”

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<sup>18</sup>For a discussion of judicial opinions addressing the admissibility of scientific evidence prior to *Frye*, see generally Justice Robin Jean Davis, *An Analysis of the Development of Admitting Expert Testimony in Federal Courts and the Impact of That Development on West Virginia Jurisprudence*, W. Va. L. Rev. (forthcoming 2002).

Following this Court’s adoption of the *Frye* standard in *Clawson*, the United States Supreme Court considered the admissibility of scientific evidence. In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), the Court examined the *Frye* standard in conjunction with Rule 702 of the Federal Rules of Evidence.<sup>19</sup> Deeming *Frye* to have been superseded by Rule 702, the *Daubert* Court summarized its position regarding the admissibility of scientific evidence by stating

“[g]eneral acceptance” is not a necessary precondition to the admissibility of scientific evidence under the Federal Rules of Evidence, but the Rules of Evidence--especially Rule 702--do assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.

509 U.S. at 597, 113 S. Ct. at 2799, 125 L. Ed. 2d at 485. The Court further explained that the “rigid ‘general acceptance’ requirement [of *Frye*] [is] at odds with the ‘liberal thrust’ of the Federal Rules and their ‘general approach of relaxing the traditional barriers to “opinion” testimony.’” *Daubert*, 509 U.S. at 588, 113 S. Ct. at 2794, 125 L. Ed. 2d at 480 (quoting *Beech Aircraft Corp. v. Rainey*, 488 U.S. 153, 169, 109 S. Ct. 439, 450, 102 L. Ed. 2d 445, 463 (1988) (citations omitted)) (additional citations omitted).

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<sup>19</sup>Federal Rule of Evidence 702 provides that “[i]f 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.” Since the Court’s consideration of this Rule, it has been amended. *See* Fed. R. Evid. 702 (2000) (also requiring, as prerequisites to admissibility, “(1) the testimony is based upon 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”).

With the abandonment of the *Frye* standard, this Court reconsidered its view on the admissibility of scientific evidence in *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993). Following the *Daubert* Court’s rationale, this Court similarly concluded that, because W. Va. R. Evid. 702<sup>20</sup> is virtually identical to the corresponding Federal Rule of Evidence 702, the *Frye* standard for admitting scientific evidence is no longer viable. Accordingly, this Court established a new method for determining the admissibility of scientific expert testimony based primarily upon the Court’s analysis in *Daubert*:

In analyzing the admissibility of expert testimony under Rule 702 of the West Virginia Rules of Evidence, the trial court’s initial inquiry must consider whether the testimony is based on an assertion or inference derived from the scientific methodology. Moreover, the testimony must be relevant to a fact at issue. Further assessment should then be made in regard to the expert testimony’s reliability by considering its underlying scientific methodology and reasoning. This includes an assessment of (a) whether the scientific theory and its conclusion can be and have been tested; (b) whether the scientific theory has been subjected to peer review and publication; (c) whether the scientific theory’s actual or potential rate of error is known; and (d) whether the scientific theory is generally accepted within the scientific community.

Syl. pt. 2, 191 W. Va. 39, 443 S.E.2d 196. *Accord* Syl. pt. 2, *State v. Beard*, 194 W. Va. 740, 461 S.E.2d 486 (1995). Thus, it is evident that the “general acceptance” standard endorsed by *Frye* is not the sole factor when considering the admissibility of scientific evidence, but rather

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<sup>20</sup>Rule 702 of the West Virginia Rules of Evidence directs “[i]f 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.”

is one of many criteria to aid in such a determination.

After this Court's revision of the admissibility standard for scientific expert testimony in *Wilt*, we further elaborated on the matter and clarified the admissibility criteria to be considered when reviewing a proffer of scientific evidence:

The first and universal requirement for the admissibility of scientific evidence is that the evidence must be both "reliable" and "relevant." Under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993), *cert. denied*, [511] U.S. [1129], 114 S. Ct. 2137, 128 L. Ed. 2d 867 (1994), the reliability requirement is met only by a finding by the trial court under Rule 104(a) of the West Virginia Rules of Evidence that the *scientific* or technical theory which is the basis for the test results is indeed "scientific, technical, or specialized knowledge." The trial court's determination regarding whether the scientific evidence is properly the subject of scientific, technical, or other specialized knowledge is a question of law that we review *de novo*. On the other hand, the relevancy requirement compels the trial judge to determine, under Rule 104(a), that the scientific evidence "will assist the trier of fact to understand the evidence or to determine a fact in issue." W. Va. R. Evid. 702. Appellate review of the trial court's rulings under the relevancy requirement is under an abuse of discretion standard. *State v. Beard*, 194 W. Va. 740, 746 [n.5], 461 S.E.2d 486, 492 [n.5] (1995).

Syl. pt. 3, *Gentry v. Mangum*, 195 W. Va. 512, 466 S.E.2d 171 (1995). *Accord* Syl. pt. 3, *State v. Lockhart*, 208 W. Va. 622, 542 S.E.2d 443 (2000).<sup>21</sup>

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<sup>21</sup>Most recently, the United States Supreme Court has addressed the admissibility of non-scientific technical evidence in *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 119 S. Ct. 1167, 143 L. Ed. 2d 238 (1999). The case *sub judice*, however, does not (continued...)

Reviewing this juridical progression, then, it is readily apparent that the prior “general acceptance” standard espoused in *Frye*, 293 F. 1013, 54 App. D.C. 46, is obsolete and has been replaced by the more liberal determinative criteria enunciated in *Daubert*, *Wilt*, *Gentry*, and Rule 702 of the Federal and West Virginia Rules of Evidence. We must then determine whether the trial court’s employment of the overruled *Frye* standard instead of the currently-accepted methods for assessing the admissibility of scientific evidence constitutes reversible error. Typically, we review *de novo* a lower court’s interpretation or application of the law. “To the extent that we are asked to interpret a statute or address a question of law, our review is *de novo*.” *State v. Paynter*, 206 W. Va. 521, 526, 526 S.E.2d 43, 48 (1999). *Accord* Syl. pt. 1, *Chrystal R.M. v. Charlie A.L.*, 194 W. Va. 138, 459 S.E.2d 415 (1995). *See also* Syl. pt. 1, *Burks v. McNeel*, 164 W. Va. 654, 264 S.E.2d 651 (1980) (“In reviewing the judgment of a lower court this Court does not accord special weight to the lower court’s conclusions of law, and will reverse the judgment below when it is based on an incorrect conclusion of law.”). Employing such a review in this case, however, does not automatically dictate reversal of the trial court’s erroneous application of the *Frye* standard.

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<sup>21</sup>(...continued)

involve the type of non-scientific evidence considered in *Kumho*, and, thus, we will reserve further consideration thereof for a more factually appropriate case. *See West Virginia Div. of Highways v. Butler*, 205 W. Va. 146, 151 n.4, 516 S.E.2d 769, 774 n.4 (1999) (declining to adopt *Kumho* standard). *But see Watson v. Inco Alloys Int’l, Inc.*, 209 W. Va. 234, 241 n.11, 545 S.E.2d 294, 301 n.11 (2001) (advocating eventual adoption of *Kumho* standard). For a thorough discussion and analysis of the *Kumho* decision and its potential impact on West Virginia evidentiary law, see generally Davis, *An Analysis of the Development of Admitting Expert Testimony*, *supra* note 18.

Despite the lower tribunal's reliance on the wrong standard to determine the admissibility of the State's proffered scientific evidence, it goes without saying that the *Frye* standard applied by the trial court is a much more demanding standard than the current "reliable and relevant" standard established by *Daubert*, *Wilt*, and *Gentry*. Moreover, the requirements of Rule 702 of the West Virginia Rules of Evidence permit a trial court to employ broad discretion as to whether such scientific evidence is admissible. In light of the fact that the standard actually used by the trial court is a much more onerous standard than the one presently applicable to cases such as this, it is apparent that, had the trial court applied the correct "reliable and relevant" standard, the EIA test results still would have been admissible as they were both obtained as a result of specialized scientific knowledge, *i.e.*, "reliable" and helped the jury to determine whether Mr. Leep had committed the crimes with which he had been charged, *i.e.*, "relevant". Because correction of the trial court's legal error would not have changed the EIA test results' admissibility, reversal on this assignment is not warranted.

#### *B. Admissibility of Scientific Evidence*

For his second assignment of error, Mr. Leep contends that the trial court erred by admitting the EIA test results proffered by the State to demonstrate that S.L.'s contraction of chlamydia occurred as a result of Mr. Leep's allegedly inappropriate sexual misconduct with her. Under the proper standard for admitting scientific evidence, the proffered evidence must be both reliable and relevant to the inquiry at hand. *See, e.g.*, Syl. pt. 3, *Gentry v. Mangum*, 195 W. Va. 512, 466 S.E.2d 171. Mr. Leep asserts, though, that the test results in issue were

neither reliable, due to the possibility of false positive test results, nor relevant, given the C.D.C.'s and test manufacturer's warnings<sup>22</sup> suggesting that EIA test results could be relied upon for medical diagnoses of chlamydia but cautioning against reliance thereon in forensic investigations of sexual assault.

The State denies Mr. Leep's assertions regarding the reliability of the EIA test results by stating that additional tests performed on S.L. served to rule out other possible sources of bacteria that could have led to a false positive EIA test result. Moreover, the State urges that these test results are relevant because they provide ““a valid scientific connection to the pertinent inquiry.”” *Quoting Daubert*, 509 U.S. at 592, 113 S. Ct. 2796, 125 L. Ed. 2d at 482. Because, the State continues, chlamydia is generally transmitted by cell-to-cell contact, and the presence of such disease is a strong indicator of penetration, a test reflecting a positive test for chlamydia in a child would be helpful to a jury determining whether sexual contact in the nature of sexual assault has occurred.

Before admitting scientific evidence, the trial court must carefully consider several factors determinative of such evidence's admissibility. First,

[t]he question of admissibility under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Wilt v. Buracker*, 191 W. Va. 39, 443

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<sup>22</sup>Mr. Leep represents that the test manufacturer included such warnings in the packaging information accompanying the test kit.

S.E.2d 196 (1993), *cert[.] denied*, [511] U.S. [1129], 114 S. Ct. 2137, 128 L. Ed. 2d 867 (1994)[,] only arises if it is first established that the testimony deals with “scientific knowledge.” “Scientific” implies a grounding in the methods and procedures of science while “knowledge” connotes more than subjective belief or unsupported speculation. In order to qualify as “scientific knowledge,” an inference or assertion must be derived by the scientific method. It is the circuit court’s responsibility initially to determine whether the expert’s proposed testimony amounts to “scientific knowledge” and, in doing so, to analyze not what the experts say, but what basis they have for saying it.

Syl. pt. 6, *Gentry v. Mangum*, 195 W. Va. 512, 466 S.E.2d 171. Once proffered evidence has been determined to be “scientific” in nature, it can be admitted so long as it is both reliable and relevant:

When scientific evidence is proffered, a circuit court in its “gatekeeper” role under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), and *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993), *cert[.] denied*, [511] U.S. [1129], 114 S. Ct. 2137, 128 L. Ed. 2d 867 (1994), must engage in a two-part analysis in regard to the expert testimony. First, the circuit court must determine whether the expert testimony reflects scientific knowledge, whether the findings are derived by scientific method, and whether the work product amounts to good science. Second, the circuit court must ensure that the scientific testimony is relevant to the task at hand.

Syl. pt. 4, *Gentry*, 195 W. Va. 512, 466 S.E.2d 171.

When a trial court completes such an analysis and admits scientific evidence, we employ a two-part standard of review. “The trial court’s determination regarding whether the scientific evidence is properly the subject of scientific, technical, or other specialized



knowledge is a question of law that we review *de novo*. . . . Appellate review of the trial court's rulings under the relevancy requirement is under an abuse of discretion standard." Syl. pt. 3, in part, *Gentry v. Mangum*, 195 W. Va. 512, 466 S.E.2d 171 (citation omitted). Ultimately, though, the question of the scientific evidence's admissibility generally is entrusted to the trial court's sound discretion:

"The admissibility of testimony by an expert witness is a matter within the sound discretion of the trial court, and the trial court's decision will not be reversed unless it is clearly wrong." Syllabus Point 6, *Helmick v. Potomac Edison Co.*, 185 W. Va. 269, 406 S.E.2d 700 (1991), *cert. denied*, 502 U.S. 908, 112 S. Ct. 301, 116 L. Ed. 2d 244 (1991).

Syl. pt. 1, *West Virginia Div. of Highways v. Butler*, 205 W. Va. 146, 516 S.E.2d 769 (1999).

Upon a review of the record in this case, we conclude that the trial court did not err by admitting the EIA test results at issue herein. In response to Mr. Leep's motion in limine to exclude the EIA test results from evidence, the trial court considered the State's proffered evidence and ruled that such scientific evidence would be admissible:

A prior motion was made by the defendant to exclude any evidence from the State's expert with regard to the Chlamydia testing and results. The defense has brought in substantial evidence in his motion in limine to challenge the admissibility of the State's evidence on the basis it did not fit the national guidelines. It's my belief that both methods have been testified to by the experts from both sides of this case. We have a reasonable basis in the scientific community and both are accepted by the scientific community. The procedures and the methods used by either or both goes to the weight and credibility that should be given to the methods used in the Chlamydia testing. Therefore, I think it's a factual issue for the jury to determine and

can be handled and addressed appropriately on cross examination and rebuttal with the expert that the defense has presented. Therefore, I will rule that the State's testing is admissible. It may be cross examined and challenge[d] through rebuttal of an expert witness as to its weight and credibility.

From this ruling, it is apparent that the trial court both considered whether the evidence constituted "scientific evidence" and, upon making such a determination, found the evidence to be both reliable and relevant.

Moreover, in rendering this decision, the trial court observed that Mr. Leep could adequately challenge the weight and credibility of the State's scientific evidence through cross-examination and rebuttal, to which methods this Court has previously alluded with favor. *See Gentry*, 195 W. Va. at 525-26, 466 S.E.2d at 184-85 ("Conventional devices,' like vigorous cross-examination, careful instructions on the burden of proof, and rebuttal evidence, may be more appropriate instead of the 'wholesale exclusion' of expert testimony under Rule 702." (citation omitted)). As the trial court neither erred as a matter of law by deeming the EIA test results to be scientific in nature nor abused its discretion by admitting such evidence, we find no grounds for reversal have been presented by this assignment of error.

### *C. Trial Court's Comments to the Jury*

Lastly, Mr. Leep asserts that the trial court improperly commented to the jury regarding the reliability of the EIA test results following the testimony of Mr. Leep's expert witness discrediting such scientific evidence. After Mr. Leep's expert witness, Dr. Morris,

testified, and called into question the reliability of the EIA test results, the trial judge, *sua sponte*, informed the jury that he previously had ruled that the EIA test results were sufficiently reliable to be admitted into evidence:

Ladies and gentlemen, a decision was ruled on earlier by me that decided that the method of medical testing and results were legally admissible as evidence because these tests were generally acceptable in the scientific community as a reliable test for its intended purposes in 1997 and is evidence that may be considered along with all other evidence to assist the jury in making its decision. The testimony of competing experts that have challenged the percentages of accuracy as a presumptive test and the percentages of false positives and false negatives may also be considered by you and that testimony to determine what weight and credibility you choose to give to the test results, if any.

As a result of the judge's comments, Mr. Leep argues, the jury received the impression that the EIA test results should be given greater weight, rather than being left to their own judgment regarding the credence to accord such evidence.

The State disputes Mr. Leep's contention that the comments of the trial court were improper. Following the challenged statement, the jury was excused, and Mr. Leep's counsel objected to the court's comments. The court then explained that:

The testimony was that it was a presumptive test and reliable for that purpose. The testimony was that the test was reliable as a presumptive test. In 1997 that it was the only test that was accepted in the medical community in this area. The only one that was used.

There was also testimony of Dr. Morris [Mr. Leep's expert] that indicated that it was not legally admissible. It was

why the instruction was given. That is not a doctor's prerogative or the lawyers prerogative. It was admissible under the Frye standard in my view. It was admissible and the instruction was given to direct the jurors that they can consider this testimony. Even though it was admissible they could consider the negatives of that testimony in giving any weight or credi[bility] they believe it deserved, if any at all.

Accordingly, the State asserts that the judge's statement did not suggest that the EIA evidence was legally sufficient to support Mr. Leep's conviction, but rather that it was legally admissible to be considered with regard thereto. Moreover, because the trial judge specifically informed the jury that they were responsible for determining the evidence's weight and credibility, if any, it is apparent that he did not improperly assert his personal opinion during the proceedings.

This State's judicial history is replete with cautionary admonitions to trial court judges to refrain from imparting their opinions upon the weight of evidence admitted during the course of a trial. "As a general rule, West Virginia courts are not permitted to comment on the weight of the evidence[.]" Syl. pt. 3, in part, *State v. Spadafore*, 159 W. Va. 236, 220 S.E.2d 655 (1975). *See also* Syl. pt. 2, *State v. Crockett*, 164 W. Va. 435, 265 S.E.2d 268 (1979) ("A trial judge should not comment on the weight of evidence bearing upon any factual matters to be submitted to the jury for decision. A violation of this general rule may constitute reversible error."). In this regard,

[i]t is recognized that a trial court has the right to control the orderly process of proceedings before him, and may intervene so long as he does not prejudice the defendant's case. . . . We have consistently observed, however, that a trial judge occupies a "unique position" from which he may wittingly or unwittingly

influence the jury in its deliberations. . . . He is cautioned to refrain from commenting on questions for the jury's determination and if, by his words or conduct, he "indicates his opinion on any material matter," a reversal would be warranted. [*State v.*] *McGee*, 160 W. Va. [1,] 6, 230 S.E.2d [832,] 835-36 [(1976)].

*State v. Banjoman*, 178 W. Va. 311, 321-22, 359 S.E.2d 331, 341-42 (1987) (additional citations omitted). *Cf.* Syl. pt. 2, *State v. Blevins*, 174 W. Va. 636, 328 S.E.2d 510 (1985) ("A trial court is not only permitted to take part in a trial but has the duty to do so in order to facilitate its orderly progress, and the remarks or conduct of the court in performing its duty will not constitute error if they are such as do not discriminate against or prejudice the defendant." Syl. Pt. 4, *State v. Hankish*, 147 W. Va. 123, 126 S.E.2d 42 (1962)."). Thus, "[w]ith regard to evidence bearing on any material issue, including the credibility of witnesses, the trial judge should not intimate any opinion, as these matters are within the exclusive province of the jury." Syllabus Point 4, in part, *State v. Burton*, 163 W. Va. 40, 254 S.E.2d 129 (1979)." Syl. pt. 5, *State v. Harris*, 169 W. Va. 150, 286 S.E.2d 251 (1982). *But see* Syl. pt. 5, *State v. Wotring*, 167 W. Va. 104, 279 S.E.2d 182 (1981) ("Although the trial court should refrain from making comments on the credibility of a witness, a comment which does not go to a material issue bearing on the witness' credibility will not result in reversible error.").

Particularly during criminal trials, judges are directed maintain their neutrality to avoid unduly influencing the jury's opinion of the evidence.

The trial judge in a criminal trial must consistently be aware that he occupies a unique position in the minds of the jurors and is capable, because of his position, of unduly influencing jurors in the discharge of their duty as triers of the facts. This Court has consistently required trial judges not to intimate an opinion on any fact in issue in any manner. In criminal cases, we have frequently held that conduct of the trial judge which indicates his opinion on any material matter will result in a guilty verdict being set aside and a new trial awarded.

Syl. pt. 4, *State v. Wotring*, 167 W. Va. 104, 279 S.E.2d 182. Because of their influential position, trial court judges must be especially careful not to reveal even the slightest indication of their assessment of the evidence. Therefore,

“‘[i]n the trial of a criminal case the jurors, not the court, are the triers of the facts,<sup>[23]</sup> and the court should be extremely cautious not to intimate in any manner, by word, tone, or demeanor, his opinion upon any fact in issue.’ Pt. 7, Syl., *State v. Austin*, 93 W. Va. 704, 117 S.E. 607 [(1923)]”, Syllabus, *State v. Perkins*, 130 W. Va. 708[, 45 S.E.2d 17] (1947).

Syl. pt. 3, *State v. Crockett*, 164 W. Va. 435, 265 S.E.2d 268 (footnote added).

In addition to the special precautions trial judges should take in criminal cases, it is important, also, when scientific evidence is involved in such a proceeding, that the trial judge be especially careful to display an aura of neutrality. This is so because “[o]ne of the dangers inherent in expert testimony in regard to scientific tests is that the jury may not

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<sup>23</sup>See also Syl. pt. 1, *State v. Harlow*, 137 W. Va. 251, 71 S.E.2d 330 (1952) (“In the trial of a criminal prosecution, where guilt or innocence depends on conflicting evidence, the weight and credibility of the testimony of any witness is for jury determination.”).

understand the exact nature of the test and the particular methodology of the test procedure and accord an undue significance to the expert testimony.” *State v. Clawson*, 165 W. Va. at 621, 270 S.E.2d at 678. *See also California v. Kelly*, 549 P.2d 1240, 1245, 17 Cal. 3d 24, 31, 130 Cal. Rptr. 144, 149 (1976) (“Lay jurors tend to give considerable weight to ‘scientific’ evidence when presented by ‘experts’ with impressive credentials.”). For this reason, then, we hold that a trial court judge should refrain from commenting to the jury upon the reliability of scientific evidence that has been admitted pursuant to *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993), and *Gentry v. Mangum*, 195 W. Va. 512, 466 S.E.2d 171 (1995).

Under the facts of the case *sub judice*, we are particularly troubled that the trial court’s comments following the testimony of the defense expert did not maintain the level of judicial independence necessary in such proceedings. Although the trial judge correctly noted, when he admitted the EIA test results into evidence, that Mr. Leep could rebut such evidence, the judge’s comments following such rebuttal testimony significantly diminished the jury’s role as fact finders by effectively instructing them as to the weight to accord both the test results evidence and Dr. Morris’s analysis thereof. “A defendant on trial has the right to be accorded a full and fair opportunity to fully examine and cross-examine the witnesses.” Syl. pt. 1, *State v. Crockett*, 164 W. Va. 435, 265 S.E.2d 268. In this case, however, the trial court’s comments infringed upon Mr. Leep’s exercise of this right, and such a usurpation of

his examination rights necessitates reversal of the trial court's orders and remand to that tribunal for further proceedings consistent with this Opinion.

#### **IV.**

#### **CONCLUSION**

For the foregoing reasons, the January 3, 2000, trial order and the February 6, 2001, sentencing order of the Circuit Court of Wayne County are reversed, and this case is remanded for further proceedings consistent with this Opinion.

Reversed and Remanded.