

861 P.2d 192 (1993)

116 N.M. 196

STATE of New Mexico, Petitioner,

v.

Ralph ALBERICO, Respondent.

STATE of New Mexico, Petitioner,

v.

Richard MARQUEZ, Respondent.

Nos. 20282, 20357.

Supreme Court of New Mexico.

August 30, 1993.

Rehearing Denied September 28, 1993.

194 *194 Tom Udall, Atty. Gen., Max W. Shepherd, Asst. Atty. Gen., Santa Fe, for petitioner.

Winston Roberts-Hohl, Santa Fe, for respondent.

Rothstein, Walther, Donatelli, Hughes, Dahlstrom & Cron, Dan Cron, Santa Fe, amicus curiae.

OPINION

FROST, Justice.

In this opinion, we address the subject of the admissibility of expert opinion testimony regarding alleged victims of sexual abuse who suffer from post traumatic stress disorder. As a necessary sub-issue, we must also discuss in general the admissibility of scientific evidence by way of expert opinion testimony under our Rules of Evidence.

For almost three-quarters of a century, the admissibility of expert opinion testimony in American jurisprudence has been governed largely by the rule set out in *Frye v. United States*, 293 F. 1013 (D.C. Cir.1923), and that has been the rule in New Mexico as well. See *State ex rel. Human Servs. Dep't v. Coleman*, 104 N.M. 500, 503, 723 P.2d 971, 974 (Ct.App. 1986). For the past several years, there has been much criticism of the *Frye* doctrine, which has been uttered in mantra-like fashion by lawyers and judges alike as a precondition for the admission of expert testimony. Today we abandon the *Frye* test as a predicate for the admissibility of scientific evidence by way of expert opinion testimony, relying instead on our Rules of Evidence.

I. PROCEDURAL HISTORY

We granted the **State's** writs of certiorari in these two cases^[1] to review the Court of Appeals decisions overturning the convictions of the defendants. Both Ralph **Alberico** and Richard Marquez were convicted of criminal sexual penetration. **Alberico** was also convicted of kidnapping. The Court of Appeals reversed the convictions, holding that the trial court in each case erred by admitting expert opinion testimony to the effect that the alleged victim suffered from post traumatic stress disorder (PTSD) consistent with sexual abuse.^[2]

In granting certiorari in **Alberico**, we requested that the parties brief two issues: May a properly qualified mental health professional testify (1) that in the expert's opinion an alleged victim of sexual abuse suffers from PTSD; and (2) that the alleged victim's symptoms are consistent with those suffered by someone who has been sexually abused. In *Marquez*, we

195 requested the parties to brief the first issue above, but we phrased the second issue *195 differently: Whether a properly qualified mental health professional may testify that the alleged victim's symptoms were the result of sexual abuse. We also granted leave to the New Mexico Criminal Defense Lawyers Association to file an amicus curiae brief in both cases.

We reverse the Court of Appeals opinion in **Alberico** and reinstate **Alberico's** conviction. We affirm, on different grounds, the Court of Appeals reversal of Marquez's conviction. While we hold that it was not error to admit expert testimony regarding PTSD in *Marquez*, the **State's** expert opinion testimony went beyond what we hold to be permissible today, which constituted reversible error.

II. FACTS

A. *State v. Alberico*

The complainant was a fifteen-year-old acquaintance of **Alberico**, and she claimed that he raped her. **Alberico** did not dispute that he had intercourse with the complainant, but he claimed that she consented. During its case in chief, the **State** introduced testimony from a clinical psychologist, Dr. Barbara Lenssen. The prosecution stated that the purpose of Lenssen's testimony was to prove that a crime was committed. Dr. Lenssen's qualifications as an expert were not contested; it is the content of her testimony that is the issue.

During voir dire outside the presence of the jury, Dr. Lenssen testified that PTSD is a diagnosis for a psychological condition that may result from an incident that is beyond the normal range of experience and which would be distressing to anyone. The American Psychiatric Association published a list of diagnostic criteria for PTSD in its manual entitled Diagnostic & Statistical Manual of Mental Disorders (3d Rev. ed. 1987) ("DSM III-R"), and Dr. Lenssen patterned her evaluation of the complainant after the DSM III-R. One of the traumatic experiences that may cause PTSD, she stated, is rape. PTSD that is induced by rape is sometimes referred to as "rape trauma syndrome" or RTS. She stated that PTSD and RTS as diagnoses are generally accepted by national organizations of both psychiatrists and psychologists. She also stated, however, that while RTS is generally accepted in the research community by clinical psychologists, it is not listed in the DSM III-R manual like PTSD.

In addition, Dr. Lenssen testified that in evaluating an alleged victim, a psychologist will try to verify or validate her credibility, but that such an evaluation falls short of being able to determine whether or not the alleged victim is telling the truth. Apparently, psychologists make no attempt at a final determination of truthfulness in the legal sense, but rather check the victim's story for inherent reliability, what they refer to as internal consistency.

Over the objection of defense counsel, the trial judge ruled that the **State** laid a proper foundation for the PTSD testimony and that such testimony was inherently reliable. As to relevancy, the trial judge ruled that PTSD testimony was admissible and would help the jury determine whether a crime had been committed, but was not admissible to bolster the credibility of the complainant. The judge concluded that PTSD testimony was based on well-recognized scientific principle and that its probative value outweighed its potential prejudicial effect.

Before the jury, Dr. Lenssen stated that she interviewed the complainant twice and her mother once. She also administered two psychological tests to the complainant. From her evaluation of the complainant's symptoms, Dr. Lenssen diagnosed her as suffering from PTSD consistent with someone who suffered from sexual abuse or rape. She did not identify **Alberico** as the probable perpetrator or inculcate him in any way.

On cross-examination, Dr. Lenssen was asked if she could determine if the complainant was lying, and she responded that she could not. She testified that the validation or verification process tries to determine whether a complainant's story is consistent with symptoms of sexual abuse. Dr. Lenssen stated that she assumes that a complainant's reports are true.

196 Also in response to cross-examination, she testified *196 that no other factors appeared to have contributed to the complainant's symptoms. Dr. Lenssen did not employ the term "rape trauma syndrome" during her testimony before the jury.

State v. Marquez

The complainant was the seventeen-year-old adopted daughter of Marquez. She complained of a pattern of sexual abuse by her stepfather beginning when she was eight or nine years old and culminating in the criminal sexual penetration of which he was convicted. Marquez denied involvement in any sexual abuse and claimed that the complainant fabricated her allegations.

Before trial pursuant to the defense's motion to exclude PTSD evidence, the district court held a hearing to determine whether PTSD testimony would be admitted. Dr. Ned Siegel testified for the defense and stated that the DSM III-R itself contains a cautionary statement to the effect that clinical categories or terms may not be synonymous with the same terms in a legal sense. He also noted that in making the PTSD diagnosis, the psychologist must believe what the victim says to make a diagnosis, but he also stated that psychologist's role is not to determine whether the victim is telling the truth. Dr. Siegel explained that in a clinical setting truthfulness is different from credibility, stating that in psychology, credibility is more akin to consistency. He also stated that it is possible to pinpoint the cause of PTSD symptoms, although that task may be difficult when different stressors overlap.

Dr. Lenssen testified for the **State** and claimed that it was not unusual to use DSM III-R in criminal cases involving the issues of competency or sanity. She also stated that the diagnosis can pinpoint a specific stressor because different stressors manifest themselves in different symptoms. She eliminated other possible causes for the symptoms observed in the complainant and diagnosed her as suffering from PTSD caused by incest.

Dr. Sam Roll also testified for the **State**, and he also stated that it was not unusual to use DSM III-R in criminal or civil cases. He stated that psychologists do not have a truth-telling machine, but that they do check for internal consistencies in a victim's report. Dr. Roll opined that none of the other stressors in the complainant's life were sufficient to create the severity of the symptoms that he observed in her behavior. Like Dr. Lenssen, Dr. Roll noted that different stressors can cause different symptoms and that most of the complainant's stressors were normal human experiences such as the divorce of her parents and the death of friends. He pointed out that sexual abuse is not within the normal range of human experience, and he diagnosed the complainant as suffering from PTSD that was highly consistent with long-term sexual abuse by a figure of trust.

In support of his motion to exclude PTSD evidence, Marquez argued that the psychologists had to assume that the complainant was telling the truth to make a diagnosis, which usurped the jury's function of passing on her credibility. The defense also claimed that having experts testify as to the complainant's credibility would prejudice the defendant. The prosecution countered that the issue was not whether the complainant was telling the truth, but rather whether the expert testimony would aid the jury in determining whether a crime was committed. The prosecution argued that PTSD testimony did not directly address truthfulness, but instead helped to disabuse the jury of common misconceptions about rape victims. Last, the prosecution claimed that PTSD evidence did not usurp the jury's function as to credibility because the experts would not testify as to the complainant's truthfulness.

The trial judge ruled that PTSD testimony would help the jury: (1) to understand the behavior of sexually abused children because it was a subject that was beyond the knowledge of lay persons; (2) to determine whether a crime had been committed; (3) that its potential prejudice to the defendant did not outweigh its probative value; and (4) that no direct testimony regarding the truthfulness of the complainant's account would be admissible. The trial court instructed the jury that they must determine *197 who was telling the truth, and the trial court gave the proper instruction on how to view expert opinion testimony.

197

During its case in chief, Dr. Roll again testified for the **State**. He stated that he interviewed the complainant and conducted a series of psychological tests. Dr. Roll concluded that the complainant suffered from PTSD "consistent with chronic sexual abuse." In addition to repeating several statements by the complainant concerning her fear of her stepfather and her statements regarding sexual abuse by him, Dr. Roll also specifically stated that the complainant's symptoms were consistent with sexual abuse by her stepfather, the defendant Marquez. He found that the complainant suffered from several stressors, but he stated that sexual trauma was the most severe stressor or cause of her symptoms.

Dr. Roll stated that it was not the function of the examining psychologist to determine if an alleged victim was telling the truth, but he testified that it was virtually impossible for the complainant to be faking her symptoms. Dr. Roll also stated that psychologists do not check for external inconsistencies; that is, they do not reference extrinsic sources to determine whether the complainant is lying. Rather, he testified, they check for internal consistencies; that is, whether the complainant's story is plausible or whether it is inherently inconsistent.

Dr. Lenssen also testified for the **State** at trial and concluded from her evaluation that the complainant suffered from PTSD. She stated that although several stressors may be present, the cause could be traced, and she believed that the complainant's symptoms could be traced to sexual abuse. Unlike Dr. Roll, she did not directly inculcate Marquez. She did recount, however, some of the complainant's statements regarding sexual abuse by her stepfather.

Dr. Lenssen also testified that in her opinion, the complainant was not fabricating her story. As in **Alberico**, however, she testified that the PTSD diagnosis is not a credibility assessment and that it makes a difference whether the complainant is telling the truth. The qualifications of both Dr. Roll and Dr. Lenssen were not challenged.

Dr. Siegel, also a clinical psychologist, testified for the defense at trial. While he did not contest the other expert witnesses' diagnoses that the complainant exhibited PTSD symptoms, he stated that the complainant suffered from several stressors, all of which cumulatively could have caused PTSD. He also testified that a PTSD diagnosis depends in large part upon what the complainant is saying and whether she is telling the truth. In addition, Dr. Siegel stated that DSM III-R contains a cautionary note about its use in a forensic setting.

III. ISSUES

A. Arguments for the Defense

On appeal, both defendants make similar arguments against the admission of PTSD testimony. They claim that the **State** failed to lay the proper scientific foundation for its admission, arguing that PTSD evidence is not generally accepted as a reliable means for determining whether sexual abuse has occurred. Both defendants advocate the continued use of the *Frye* test as a predicate for the admission of expert opinion testimony.

The defendants also argue that PTSD evidence is not relevant because the experts' testimony went beyond the scope of what their expertise allows. They concede that PTSD testimony may be admitted if its purpose is to explain the victim's delayed reporting of the incident or her initial denial or subsequent recantation of the incident. They maintain, however, that an expert may not testify that an alleged victim's symptoms of PTSD are consistent with those exhibited by someone who has been sexually abused because such testimony lacks an objective scientific foundation. They assert that PTSD evidence regarding causation was improper because PTSD was not intended to be used as a forensic tool in a court of law. In addition, the defendants claim that such testimony amounts to improper evidence regarding the complainants' 198 credibility. Because this testimony usurps the traditional function of the jury, they argue that it results in prejudice to the defendants which outweighs any probative value.

Amicus focuses primarily upon the standard for the admissibility of expert opinion testimony, and it urges the retention of the *Frye* test. Like defense counsel, amicus admits that PTSD is generally accepted as a diagnosis of observed symptoms, but not for identifying the underlying cause of the symptoms. Also like the defense and the Court of Appeals, amicus assumes that jurors are apt to be awed by the "aura of infallibility" of expert testimony. Thus, it urges a de novo review of the admissibility of such evidence.

B. The State's Argument

The **State** argues that the PTSD diagnosis is widely utilized and generally accepted as inherently reliable as a means of pinpointing the cause of a victim's symptoms. The **State** claims that PTSD is objectively verifiable and does not rely exclusively upon what the victim tells the psychologist. To the extent that self-reporting is relied upon, the **State** asserts

that it can be corroborated by other well-established and regularly administered psychological tests. Thus, the **State** claims that PTSD evidence is relevant to the issue of whether or not the alleged victim was sexually abused. The **State** also argues that such expert testimony does not encroach upon the province of the jury in an assessment of a complainant's credibility.

The **State** advocates abandoning *Frye* as the test for the admissibility of scientific evidence. The **State** points out that the *Frye* test has been sharply criticized, and it claims all that is required by our Rules of Evidence under SCRA 1986, 11-702 is a showing that such testimony will assist the trier of fact. Beyond such a showing, the **State** argues, appellate courts must trust the jury not to abdicate its fact-finding role by deferring too heavily upon expert testimony. The **State** also proposes adhering to the abuse of discretion standard in reviewing a trial court's admission of expert testimony, claiming that the Court of Appeals abandoned that rule in *Alberico* by holding PTSD testimony inadmissible as a matter of law.

C. The Court of Appeals Opinion

In *Alberico*, the Court of Appeals stated that the admissibility of PTSD testimony depended on the purpose for which it is offered. The Court noted two instances in which PTSD testimony would be admissible: when it is offered to establish that the victim suffered from a psychological ailment or mental anguish,^[3] and when it is offered to rebut the defense that the victim's behavior was inconsistent with having been raped.^[4] The Court cited several cases that have allowed PTSD testimony to show that rape victims sometimes react to the alleged incident in a manner that lay persons might not expect or understand.

The third purpose of PTSD testimony that the Court of Appeals acknowledged was to support the inference that the victim was raped. The Court noted that general testimony pertaining to the victim's condition and symptoms before and after the alleged incident might be admissible to allow the jury to use its common understanding of human nature to determine whether the victim was sexually abused. What the Court objected to was expert opinion testimony regarding the cause of the victim's symptoms, which is the precise issue before us. The Court of Appeals held that "generally recognized principles governing the admissibility of expert testimony compel us to join those jurisdictions barring testimony concerning [PTSD] when the testimony suggests that the witness *199 possesses special skills in determining from a psychological diagnosis that an alleged victim was in fact sexually assaulted."

Judge Bivins dissented from the opinion in *Alberico*. He reasoned that if PTSD testimony is admissible for one of the purposes acknowledged by the majority, for example to show that rape victims often exhibit symptoms which lay persons would think uncharacteristic, then it is no different to allow testimony that the complainant suffers from symptoms characteristic of PTSD and that one of the recognized causes of PTSD is rape. Judge Bivins noted that "there is general acceptance for PTSD as a diagnosis for a psychological condition that may result when an individual experiences an event that is outside the range of the usual human experience and that would be markedly distressing to anyone." He also noted that it is generally accepted that rape is one of the experiences that may cause PTSD.

Judge Bivins also acknowledged, however, that it is not generally accepted that psychologists can pinpoint the cause of PTSD or that they can distinguish some stressors from others. Thus, he would exclude expert testimony that attempts to differentiate between potential causes of PTSD or to link PTSD conclusively with rape. Judge Bivins also disagreed with the majority's abandonment of the abuse of discretion standard for reviewing a trial court's admission or exclusion of expert testimony.

IV. DISCUSSION

First, we focus on the role of the jury in considering expert opinion testimony and the contention by the Court of Appeals that juries are automatically swayed by its aura of special reliability and trustworthiness. The second issue that we address is whether the *Frye* test has retained any viability in a Rule 702 inquiry concerning the admissibility of expert opinion testimony. Last, applying the principles set out herein, we determine whether the trial court in these two cases erred by

admitting expert testimony regarding PTSD.

A. The Jury's Function

Rules 702, 703, 704, and 705 govern the admissibility of expert opinion testimony. These rules do not characterize expert opinion testimony as a lesser or greater form of evidence, but rather accord the trier of fact the discretion to evaluate such evidence just like any other admissible evidence. See Price v. Foster (In re Estate of Foster), 102 N.M. 707, 711, 699 P.2d 638, 642 (Ct.App.), cert. denied, 102 N.M. 734, 700 P.2d 197 (1985). "This Court has consistently held that the jury are [sic] the judges of the weight and credibility of evidence." State v. Hudson, 78 N.M. 228, 230, 430 P.2d 386, 388 (1967); see also State v. Dorsey, 93 N.M. 607, 609, 603 P.2d 717, 719 (1979) (relative weight accorded lay or expert testimony is matter for jury). Thus, expert opinion testimony is given no more credence or weight, at least in theory, than ordinary lay witness testimony.

The majority of the panel of the Court of Appeals here was concerned that the jury would abdicate its duty to critically evaluate the evidence as fact-finder and thus defer the resolution of a critical issue to expert opinion testimony. It stated that

[t]he problem is that most lay people, including the jury, are likely to feel the same way — that the expert is better qualified to draw the inference — and therefore defer to the expert. *The law should guard against such deference unless there is a substantial basis for it.* Otherwise, the expert's testimony is likely to be given undue weight. In that event, the expert opinion testimony misleads or confuses the jury; it does not "assist the trier of fact." (Emphasis added).

(citations omitted). Having set up its strawman, the Court then framed the issue: "The pivotal question therefore is `When is an expert's opinion entitled to the deference that the fact-finder is likely to give it?'"

200 Assuming that a jury will defer to an expert's opinion testimony and stating that the "law should guard against such deference" distorts the issue concerning *200 the admissibility of expert testimony. First, nothing in our case law or Rules of Evidence directs a trial court to guard against any deference that a jury might accord expert testimony. To the contrary, even predating statehood, this Court stated that "[i]t is such a well established rule as scarcely to require repetition, that, when there is competent evidence, the jury are [sic] the judges of its credibility, and the weight to be attached to it." Territory v. Maxwell, 2 N.M. 250, 255 (1882) (emphasis added). Thus, the issue is focused on what is competent evidence, not whether there is a substantial basis for the admission of expert opinion testimony. One of the most fundamental rules of American jurisprudence is that the jury has the privilege to believe or to disbelieve any testimony it hears. See State v. Holden, 85 N.M. 397, 399, 512 P.2d 970, 972 (Ct.App.), cert. denied, 85 N.M. 380, 512 P.2d 953 (1973). It is the duty of our courts, therefore, to determine initially whether expert testimony is competent under Rule 702, not whether the jury will defer to it.⁵¹

Second, the Court of Appeals' premise that juries are awed by the "aura of the infallibility" of expert opinion testimony and thus defer to it is flawed speculation. In theory, an expert's opinion is not conclusive of a fact in issue even though the opinion may be uncontroverted. See Van Orman v. Nelson, 78 N.M. 11, 23, 427 P.2d 896, 908 (1967); Jamison v. Shelton, 35 N.M. 34, 36, 289 P. 593, 594 (1930). "The province of the experts is to aid the jury in reaching a conclusion. Their opinions are not to be taken as conclusive. The judgments of experts or the inferences of skilled witnesses, even when unanimous and uncontroverted, are not necessarily conclusive on the jury, but may be disregarded by it." State v. Moore, 42 N.M. 135, 160, 76 P.2d 19, 34 (1938). And in practice, the body of our reported case law indicates that juries do not always accord deference to expert testimony; juries often reject it. See, e.g., Dorsey, 93 N.M. at 608, 603 P.2d at 718 (jury rejected insanity defense supported by expert testimony); Moore, 42 N.M. at 160, 76 P.2d at 34 (jury evidently rejected expert opinion regarding defendant's insanity and found him sane); Holden, 85 N.M. at 399, 512 P.2d at 972 (jury rejected defense of diminished responsibility supported by expert testimony); State v. James, 85 N.M. 230, 233, 511 P.2d 556, 559 (Ct.App.) (jury rejected insanity defense supported by expert testimony), cert. denied, 85 N.M. 228, 511 P.2d 554 (1973); State v. Smith, 80 N.M. 126, 130, 452 P.2d 195, 199 (Ct.App. 1969) (jury apparently not wowed by expert testimony).

Even the most seasoned and successful trial attorneys know that juries, like most people, are unpredictable. Even they do not claim the omniscience of presaging a jury's verdict or the evidence upon which it might rely in making its decision. Thus, it is not within the province of our appellate courts to assume that juries will accord undue weight to expert opinion testimony as a pretext for excluding it when there is evidence in our case law militating against deference by juries and when excluding that evidence vitiates the most basic function of a jury to arbitrate the weight and credibility of evidence, even expert opinion testimony. The jury is not required to accept expert opinions as conclusive and disregard all other evidence bearing on the issue. Smith, 80 N.M. at 130, 452 P.2d at 199. And as evidenced by the case law cited above, juries adhere to this principle.

B. Expert Testimony, Rule 702, and the Frye Test

Article 7 of our Rules of Evidence, entitled "Opinion and Expert Testimony," nowhere contains the language of the *Frye* test, and none of the Rules in Article 7 makes reference to it. As the Court of Appeals remarked, however, certainly there
201 "must be some threshold of independent support for the validity of the witness's *201 methods before testimony based on the methods is admissible." We find that threshold of validity within Rule 702.

1. New Mexico Precedent

The *Frye* test,^[6] if not by name then at least in principle, has been a part of New Mexico evidence law since 1952 when this Court affirmed the district court's exclusion of expert opinion testimony that was not "reliable or generally approved and accepted by members of the medical profession specializing in psychiatry." State v. Lindemuth, 56 N.M. 257, 271, 243 P.2d 325, 334 (1952). To be admissible, the Court held that the scientific technique or principle about which the expert proposes to testify must be "accorded general scientific recognition." *Id.*, at 274, 243 P.2d at 336. This Court first cited and quoted from *Frye* in State v. Trimble, 68 N.M. 406, 362 P.2d 788 (1961), but the *Trimble* opinion relied more on the holding in *Frye* than upon the principle with which we are concerned today. See *id.*, at 407, 362 P.2d at 789 (holding results from polygraph tests inadmissible).

The courts of New Mexico have continued to rely upon the *Frye* test, but like the opinions in *Lindemuth* and *Trimble*, the decisions have not "indicated what the [*Frye*] standard means functionally." See Leo M. Romero, *The Admissibility of Scientific Evidence Under the New Mexico and Federal Rules of Evidence*, 6 N.M.L.Rev. 187, 190 (1976). Nevertheless, our courts have continually stated that for expert opinion testimony to be admissible, "it would have to be shown that the reliability of underlying scientific principles had been accepted by the scientific community." Montoya v. Metropolitan Court, 98 N.M. 616, 617, 651 P.2d 1260, 1261 (1982) (citing *Frye*); see also State v. Gallegos, 104 N.M. 247, 253, 719 P.2d 1268, 1274 (Ct.App. 1986) (proposed area of expertise must have received general acceptance in the particular field to which it belongs).

2. The Frye Test

Commentators have urged abandonment of the *Frye* test as the sole criterion for the admissibility of scientific evidence, except perhaps for taking judicial notice of established scientific facts under SCRA 1986, 11-201. See People v. Hampton, 746 P.2d 947, 951 (Colo. 1987); see also 1 *McCormick on Evidence* § 203, at 871 (4th ed. 1992) [hereinafter *McCormick*]. The primary criticisms of the *Frye* test are that it is too restrictive and that it is easily manipulated because it is so vague. See generally Paul C. Giannelli & Edward J. Imwinkelreid, *Scientific Evidence* §§ 1-5(B) to 1-5(B)(3), at 16-21 & § 1-5(E), at 25-28 (1986). For example, the compulsory waiting period for tabulating a "nose-count" of scientists who find the technique acceptable excludes some new techniques that are scientifically valid but have not yet attained general acceptance. See DeLuca v. Merrell Dow Pharmaceuticals, Inc., 911 F.2d 941, 955 (3d Cir.1990) (finding general acceptance test too vague and malleable to reach consistent results "because its nose-counting emphasis often led to the exclusion of helpful evidence"). In addition, the inherent vagueness of the *Frye* test creates ambiguities as to the scope of the pertinent field or fields to which the scientific technique belongs and whether the term "general acceptance" requires a

consensus, a simple majority, or a significant minority. The best argument in favor of the *Frye* test is that it at least provides a safeguard against testimony based upon specious scientific techniques, especially in criminal trials in which the defendant's right to a fair trial is crucial. See Paul C. Giannelli, *The Admissibility of Novel Scientific Evidence: *202 Frye v. United States, A Half-Century Later*, 80 Col.L.Rev. 1197, 1207 (1980) [hereinafter Giannelli].

Even our Court of Appeals has diverged from the application of the *Frye* test in analyzing the admissibility of expert testimony. For example, in *Fuyat v. Los Alamos National Laboratory*, 112 N.M. 102, 811 P.2d 1313 (Ct.App. 1991), the Court recently declined to employ the *Frye* criteria to expert testimony in a field that had not attained recognition from the American Medical Association. Instead, the Court held, in accordance with Rule 702, that "when an expert is properly qualified and the evidence would assist the trier of fact, the evidence is admissible." *Id.*, at 106, 811 P.2d at 1317. In ruling the testimony admissible, however, the Court in *Fuyat* appeared to focus only upon the qualifications of the experts rather than upon the reliability of the scientific technique underlying the substance of their testimony. Thus, the Court addressed the first criterion in Rule 702 concerning qualifications and ignored the other two criteria. The Court apparently assumed that if the experts were qualified, their testimony would assist the trier of fact and their testimony would be grounded in scientific knowledge.

3. Rule 702

Rule 702 reads as follows:

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.

SCRA 1986, 11-702. We discern three prerequisites in Rule 702 for the admission of expert opinion testimony. The first requirement is that the expert be qualified. As noted earlier, the qualifications of the experts in these cases were not contested, and thus it is not an issue on appeal.

The second consideration for the admissibility of scientific evidence in the form of expert testimony is whether it will assist the trier of fact. *State v. Blea*, 101 N.M. 323, 326, 681 P.2d 1100, 1103 (1984). Put another way, the relevant inquiry is "[o]n *this subject* can a jury from *this person* receive appreciable help." See *People v. Fasy*, 829 P.2d 1314, 1316 (Colo. 1992) (en banc) (quoting 7 Wigmore *Evidence* § 1923, at 21 (3d ed. 1940) (emphasis in original)).

The third requirement in Rule 702, which is closely related to assisting the trier of fact, is that an expert may testify only as to "scientific, technical or other specialized knowledge." Scientific knowledge is what distinguishes Rule 702 expert opinion testimony from Rule 701 lay opinion testimony, which requires personal observation. Otherwise, an expert's testimony would be nothing more than lay opinion testimony, which is generally not allowed except in limited circumstances involving value, voice and handwriting identification, sanity, or speed.^[7] Whereas personal observation is a prerequisite for allowing lay persons to give opinion testimony, the proponent of expert opinion testimony must show that the expert will assist the trier of fact by conveying scientific knowledge. "Presumably, this relaxation of the usual requirement of first-hand knowledge... is premised on an assumption that the expert's opinion will have a reliable basis in the knowledge and experience of his discipline." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, ___ U.S. ___, ___ S.Ct. 2786, 2796, 125 L.Ed.2d 469 (1993).

a. Scientific Knowledge

In considering the interaction between the *Frye* test and Rule 702, the critical issue is whether the *Frye* test is a legitimate means for determining what is and what is not scientific knowledge. We hold that it is not and that the *Frye* test "should be rejected as an independent controlling standard of admissibility. Accordingly, we hold that a particular degree of acceptance of a scientific technique within the scientific community is neither a necessary nor a sufficient condition for admissibility; it is, however, one factor that a district court normally should consider in deciding whether to admit evidence

based upon the technique." United States v. Downing, 753 F.2d 1224, 1237 (3d Cir.1985). A unanimous United States Supreme Court also recently abandoned the *Frye* test, characterizing it as an "austere standard, absent from and incompatible with the Federal Rules of Evidence...." Daubert, U.S. at ___, 113 S.Ct. at 2794. New Mexico's Rule 702 is identical to Rule 702 in the Federal Rules of Evidence.

When scientific evidence is employed as a means of obtaining or analyzing data, the trial court must determine whether the scientific technique is based upon well-recognized scientific principle and whether it is capable of supporting opinions based upon reasonable probability rather than conjecture. Blea, 101 N.M. at 326, 681 P.2d at 1103; State ex rel. Human Servs. Dep't v. Coleman, 104 N.M. 500, 503, 723 P.2d 971, 974 (Ct.App. 1986); State v. Beachum, 97 N.M. 682, 688, 643 P.2d 246, 252 (Ct.App. 1981), cert. quashed, 98 N.M. 51, 644 P.2d 1040 (1982). Thus, the focus should not be solely on whether the scientific technique has gained general acceptance within its particular field. Rather, it should be on the validity and the soundness of the scientific method used to generate the evidence.

Contrary to the assertion by amicus that the *Frye* test places the responsibility of determining scientific validity upon scientists, in practice too many courts reference reported case law to determine what is generally accepted in the scientific community. It is improper to look for scientific acceptance only from reported case law because that amounts to finding a consensus in the legal community based on scientific evidence that is sometimes many years old.

In rejecting *Frye*, some courts have reasoned that scientific reliability is the critical element of admissibility, distinguishing it from scientific validity. See Downing, 753 F.2d at 1238. Although this may merely be a matter of semantics, reliability has been defined as a measure of bringing about consistent results, and validity is seen as proof of the technique's ability to show what it purports to show. See Daubert, ___ U.S. at ___ n. 9, 113 S.Ct. at 2795 n. 9; Giannelli at 1201 n. 20; David McCord, *The Admissibility of Expert Testimony Regarding Rape Trauma Syndrome in Rape Prosecutions*, 26 B.C.L.Rev. 1143, 1190 (1985).

We view validity and reliability as being scientifically interrelated, with the concept of validity encompassing the concept of reliability. In other words, if a particular scientific technique brings about consistent results, that is one element of validity, that is, proof of the technique's ability to show what it purports to show. While one concept embraces the other in a scientific sense, however, legally the two concepts are related to two separate evidentiary issues. Validity is the measure of determining whether the testimony is grounded in or a function of established scientific methods or principles, that is, scientific knowledge. Reliability is akin to relevancy in considering whether the expert opinion testimony will assist the trier of fact.

Several factors could be considered by a trial court in assessing the validity of a particular technique to determine if it is "scientific knowledge" under Rule 702. See Daubert, U.S. at ___, 113 S.Ct. at 2790 (addressing criteria for the admissibility of scientific evidence under Federal Rule 702); Downing, 753 F.2d at 1238-39 (same). First and foremost is the technique's relationship with established scientific analysis. For example, a technique that is grounded in traditional psychiatric or psychological principles, whether or not it is generally accepted, might be found to *204 be admissible whereas we would be inclined to hold inadmissible a technique based upon astrology, even though it might be generally accepted by astrologists. The availability of specialized literature addressing the validity of the technique and whether the technique is generally accepted are two more factors to consider because they "bear on the likelihood that the scientific basis of the new technique has been exposed to critical scientific scrutiny." Downing, 753 F.2d at 1238-39. We will not attempt to etch into stone a list of criteria as the *sine qua non* for the admissibility of scientific evidence, but these criteria will serve as guidelines for our lower courts and allow for further development in this area of our case law.

b. Assisting the Trier of Fact

In this case, the Court of Appeals correctly noted that the "central concern addressed by the *Frye* test is that the method employed by the expert be scientifically valid — that it can accurately determine what it is supposed to determine." The Court of Appeals also cogently reasoned that if the scientific method is not valid, "testimony relating the conclusions reached by the method can hardly `assist the trier of fact.'" The problem that we perceive with the *Frye* test is that the scientific method underlying the expert's testimony need not be "generally accepted" to accurately determine what it

purports to prove. *Id.*, at 1235.

Thus, the pertinent inquiry must focus on the proof of reliability of the scientific technique or method upon which the expert testimony is premised. See *Coleman*, 104 N.M. at 503, 723 P.2d at 974; *Beachum*, 97 N.M. at 688, 643 P.2d at 252. This principle is not foreign to our jurisprudence. "Reliability and relevancy are inextricably linked; once the technique is shown to be reliable it is relevant to prove what it purports to prove." *Simon Neustadt Family Ctr., Inc. v. Blutworth*, 97 N.M. 500, 504, 641 P.2d 531, 535 (Ct.App. 1982), overruled on other grounds by *Melnick v. State Farm Mut. Auto Ins. Co.*, 106 N.M. 726, 728, 749 P.2d 1105, 1107, cert. denied, 488 U.S. 822, 109 S.Ct. 67, 102 L.Ed.2d 44 (1988). This reasoning implicitly recognizes that relevancy under Rule 401 encompasses two principles: materiality and probative value. See *McCormick*, § 185 at 773. In this context, relevance is another way of referring to probative value, sometimes referred to as logical relevance. See *id.*, at 775.

The Court of Appeals, however, incorrectly equated testimony that misleads or confuses the jury with testimony that does not assist the trier of fact, although in an intuitive sense that may be true. "[C]onfusion of the issues or misleading the jury" are considerations under Rule 403, not Rule 702. To reiterate, the proper inquiry under Rule 702 is whether the subject of the expert's testimony is grounded in valid, objective science, that is "scientific, technical or other specialized knowledge," and whether the underlying scientific technique or method is reliable enough to prove what it purports to prove, that is probative, so that it will assist the trier of fact.

4. Rules 401 and 403

Even if the expert testimony passes muster under Rule 702, it must still be material to the particular case to be admissible under Rule 401, and even if relevant (that is, material and probative), the scientific evidence may be excluded if its prejudicial effect substantially outweighs its probative value under Rule 403. See *Blea*, 101 N.M. at 326, 681 P.2d at 1103. Expert testimony might be material under Rule 401 and still not be valid or probative under Rule 702. Furthermore, an expert's testimony might be valid and probative, and thus would assist the trier of fact in that it is accurate and consistent, but it might not be so accurate or consistent as to outweigh its prejudicial effect under a Rule 403 balancing test.

C. The Standard of Review

205 Another issue raised by the parties is the standard for reviewing the admission of expert opinion testimony at trial. The Court of Appeals, citing no authority, concluded that "it appears to be universal *205 practice for appellate courts to decide whether a type of scientific evidence is sufficiently reliable to be admitted at trial. We should not abandon the rule of law in the name of trial-court discretion."

The **State** argues that the admission or exclusion of evidence should be left to the sound discretion of the trial court. The **State** claims that a trial court does not abuse its discretion in admitting expert opinion testimony when it establishes that the expert's testimony will assist the trier of fact under Rule 702; that the scientific technique employed by the expert is based upon well-recognized scientific principle and is capable of supporting opinions based on reasonable probability rather than conjecture; and that the probative value of the evidence outweighs its prejudicial effect under Rule 403. We believe that the **State's** analysis is essentially correct.

The rule in this **State** has consistently been that the admission of expert testimony or other scientific evidence is peculiarly within the sound discretion of the trial court and will not be reversed absent a showing of abuse of that discretion. See *State v. Gilbert*, 100 N.M. 392, 400, 671 P.2d 640, 648 (1983), cert. denied, 465 U.S. 1073, 104 S.Ct. 1429, 79 L.Ed.2d 753 (1984); *Sanchez v. Molycorp, Inc.*, 103 N.M. 148, 152, 703 P.2d 925, 929 (Ct.App. 1985); *State Farm Fire & Casualty Co. v. Miller Metal Co.*, 83 N.M. 516, 520, 494 P.2d 178, 182 (Ct.App. 1971), cert. quashed, 83 N.M. 740, 497 P.2d 742 (1972). "Broad discretion in the admission or exclusion of expert evidence will be sustained unless manifestly erroneous." *State v. Chouinard*, 96 N.M. 658, 660, 634 P.2d 680, 682 (1981), cert. denied, 456 U.S. 930, 102 S.Ct. 1980, 72 L.Ed.2d 447 (1982). We see no reason to change the rule that the admission or exclusion of evidence is discretionary with the trial court. See *State v. Bowman*, 104 N.M. 19, 22, 715 P.2d 467, 470 (Ct.App. 1986).

As an abstract notion, the validity and reliability of a particular scientific method or technique remains constant once established. Thus, it would follow that the application of the particular scientific method would not vary from case to case and thus would be worthy of a judicial stamp of approval or rejection as a matter of law from an appellate court. This reasoning assumes, however, that the record on appeal contains all of the relevant, most recent data concerning the scientific method, and that assumes too much. It also assumes that there is always a reservoir of scientific literature that an appellate court might independently reference in a de novo review.

The abstract validity of a scientific technique should not vary from court to court, but how the proof of such validity is communicated will often vary from presentation to presentation. Some experts are more skillful and more well-informed than others just as some lawyers are more skillful and more well-prepared than others. In addition, the **state** of science is not constant; it progresses daily.^[8] For example, what might have been true about PTSD in the early 1980s when it was first addressed in published opinions might not have been true in 1992 when these two trials were held.

206 The advantage of the de novo standard of review is that the appellate court may leisurely leaf through a plethora of peer-reviewed literature or law review articles on the subject matter in question rather than having to make a snap, although informed, decision from the bench at trial after having listened to qualified experts. For many novel scientific techniques, however, *206 there is a dearth of scientific analysis in peer-reviewed literature, but experts might be able to testify as to its scientific validity. This harkens back to the reason for abandoning the *Frye* test: science that is valid and reliable need not necessarily be generally accepted for an arbitrarily fixed number of years and thus have had the time to appear in a number of scientific journals.

The abuse of discretion standard lends itself to the criticism that it will lead to inconsistent results in lower courts throughout the **state**, and that criticism is well-taken. It must be remembered, however, that what we are concerned with here are novel scientific techniques. The principal reason for the abuse of discretion standard of review is to allow the trial court to look at the current **state** of the evidence in the scientific community, which is not constant but ever evolving.

D. Abuse of Discretion

An abuse of discretion in a case such as this can be found when the trial judge's action was obviously erroneous, arbitrary, or unwarranted. *State v. Williams*, 76 N.M. 578, 582, 417 P.2d 62, 65 (1966). Abuse of discretion has also been defined as being clearly against the logic and effect of the facts and circumstances before the court. *Bowman*, 104 N.M. at 22, 715 P.2d at 470; *State v. Lucero*, 98 N.M. 311, 314, 648 P.2d 350, 353 (Ct.App.), cert. denied, 98 N.M. 336, 648 P.2d 794 (1982). An appellate court should be wary of substituting its judgment for that of the trial court. See *State v. Trejo*, 113 N.M. 342, 347, 825 P.2d 1252, 1257 (Ct.App. 1991), cert. denied, 113 N.M. 524, 828 P.2d 957 (1992). An abuse of discretion standard of review, however, is not tantamount to rubber-stamping the trial judge's decision. It should not prevent an appellate court from conducting a meaningful analysis of the admission scientific testimony to ensure that the trial judge's decision was in accordance with the Rules of Evidence and the evidence in the case.

E. Whether PTSD Testimony is Admissible

After reviewing the relevant case law, we look first at whether PTSD is grounded in valid scientific knowledge, employing the principles outlined above. Then we consider its probative value, that is, whether it reliably and accurately proves what it purports to prove and thus whether it would assist the trier of fact. The next step is to determine whether its probative value is substantially outweighed in a Rule 403 balancing analysis. Finally, we address some limitations on expert testimony regarding PTSD evidence.^[9]

1. New Mexico Case Law.

We have yet to pass on the admissibility of PTSD or RTS evidence. The Court of Appeals, however, in *State v. Bowman*, 104 N.M. 19, 715 P.2d 467 (Ct.App. 1986), assumed without deciding that expert testimony regarding RTS was

admissible. *Id.*, at 21, 715 P.2d at 469. The Court noted that in New Mexico, the admission or exclusion of evidence is discretionary with the trial court, and it stated that New Mexico courts liberally allow the admission of expert testimony. *Id.*, at 22, 715 P.2d at 470. Employing the abuse of discretion standard in reviewing the trial judge's decision, the Court opined that it might not reverse a trial court which had allowed the introduction of RTS evidence, but that conversely, "it does not necessarily compel reversal of a trial judge who excluded such evidence," which is what the trial judge had done. *Id.* The Court went on to **state** that its affirmance of the exclusion of RTS evidence was supported by the prosecution's insistence on using "the emotion-charged terminology of rape trauma syndrome despite the *207 psychologist's repeatedly expressed preference for the neutral term of post-traumatic stress disorder." *Id.*

The Court of Appeals has held that PTSD or RTS testimony is admissible for purposes other than to prove that a crime was committed. In *State v. Barraza*, 110 N.M. 45, 791 P.2d 799 (Ct.App.), cert. denied, 109 N.M. 704, 789 P.2d 1271 (1990), the Court of Appeals again did not directly address the admissibility of RTS in general because the issue had not been preserved below, but the Court held that RTS testimony was relevant to establish the element of mental anguish in second degree criminal sexual penetration. *Id.*, at 48, 791 P.2d at 802. In *State v. Newman*, 109 N.M. 263, 784 P.2d 1006 (Ct.App.), cert. denied, 109 N.M. 262, 784 P.2d 1005 (1989), a child therapist testified that the victim exhibited symptoms that were consistent in her experience with child abuse victims, but she did not use the terms PTSD or RTS. *Id.*, at 265, 784 P.2d at 1008. The Court held that the expert's testimony was admissible to assist the jury to understand the behavior of sexually abused children. *Id.*, at 266, 784 P.2d at 1009.

2. Other Jurisdictions.

Several other jurisdictions have considered the admissibility of expert testimony regarding PTSD or RTS. Almost every court that has addressed this issue, like the Court of Appeals in *Newman*, has concluded that PTSD evidence is admissible to explain a victim's behavior that is apparently inconsistent with having been raped if the defense has made it an issue.^[10] In addition, the jurisdictions are virtually unanimous in disallowing expert testimony that comments directly on the credibility of the rape victim. See, e.g., *State v. Moran*, 151 Ariz. 378, 385, 728 P.2d 248, 255 (1986). But see *State v. Bachman*, 446 N.W.2d 271, 276 (S.D. 1989) (allowing opinion testimony that child victim's allegations were truthful).

As to the issue of whether such evidence is admissible to prove sexual abuse or nonconsensual intercourse, the courts are about evenly split. Some jurisdictions allow PTSD testimony to show that the victim was sexually abused or to rebut the defense of consent.^[11] Other jurisdictions forbid PTSD testimony for the purpose of proving that sexual abuse in fact occurred.^[12] At least one court has upheld the *208 introduction of PTSD testimony for the incongruous purpose to show lack of consent but not to prove rape. See *State v. Huey*, 145 Ariz. 59, 63, 699 P.2d 1290, 1294 (1985) (in banc).

Some courts specifically prohibit an expert from testifying that the alleged victim suffers from "rape trauma syndrome" while allowing PTSD testimony because of the former term's latent assumption that the only cause of the syndrome is rape. See *State v. Roles*, 122 Idaho 138, 145 n. 4, 832 P.2d 311, 318 n. 4 (Ct.App. 1992); *State v. Gettier*, 438 N.W.2d 1, 6 (Iowa 1989). "The concern with unfair prejudice is largely reduced when the terminology does not equate the syndrome exclusively with rape." *State v. Allewalt*, 308 Md. 89, 517 A.2d 741, 751 (1986). In holding that PTSD testimony was inadmissible, however, at least one court found no meaningful semantic distinction between RTS and PTSD. See *State v. Black*, 109 Wash.2d 336, 745 P.2d 12, 19 (1987) (en banc).

Other courts have concluded that PTSD evidence is a scientifically reliable or generally accepted means of determining whether sexual abuse occurred, but have excluded it on Rule 403 grounds. See, e.g., *People v. Taylor*, 75 N.Y.2d 277, 552 N.Y.S.2d 883, 891, 552 N.E.2d 131, 139 (1990). In addition, many courts recognize that PTSD is founded upon good science, but even some of those jurisdictions that found PTSD to be "generally accepted" conclude that it will not assist the trier of fact to determine whether a rape occurred because it is a therapeutic method that was not intended to be used as a forensic tool. See *People v. Bledsoe*, 36 Cal.3d 236, 203 Cal. Rptr. 450, 459-60, 681 P.2d 291, 300-01 (1984) (in banc); *People v. Beckley*, 434 Mich. 691, 456 N.W.2d 391, 409-10 (1990); *State v. Hall*, 330 N.C. 808, 412 S.E.2d 883, 889 (1992). That is another way of saying that the testimony is not relevant in the sense that it is not probative.

3. PTSD Testimony is Admissible to Show Sexual Abuse.

The Court of Appeals was correct in holding that the proper initial inquiry for the admissibility of expert opinion testimony, or any evidence for that matter, is the purpose for which it is being offered. In both of these cases, the prosecution sought the introduction of expert testimony to show that a crime had been committed: that is, in *Alberico* to show that the alleged victim did not consent to intercourse; and in *Marquez* to show that sexual abuse had taken place.

The issue is not, however, as the Court of Appeals stated, "whether a diagnosis of PTSD or RTS is a valid means of determining whether a rape occurred;" rather, it is whether PTSD evidence is probative of whether a rape occurred. In other words, the issue is whether the evidence has "any tendency to make the existence of [a material issue] more probable or less probable than it would be without the evidence." See SCRA 1986, 11-401. There is no requirement that a scientific technique or method prove conclusively what it purports to prove. See *Daubert*, U.S. at , 113 S.Ct. at 2795 (stating "it would be unreasonable to conclude that the subject of scientific testimony must be 'known' to a certainty; arguably, there are no certainties in science.").

a. PTSD is grounded in scientific knowledge.

We hold that PTSD testimony is grounded in valid scientific principle. DSM III-R is specialized literature that specifically catalogues the symptoms of mental disorders and prescribes the method by which the psychological evaluation should take place. DSM III-R, according to the **State's** experts, is widely used in courtrooms, not only for issues of sex abuse, but for issues concerning sanity and competency as well. PTSD is generally accepted by psychologists and psychiatrists as a valid technique for evaluating patients with mental disorders. The existence of DSM III-R and its general acceptance in psychology indicate that PTSD has been exposed to objective scientific scrutiny and empirical verification.

209 *209 Furthermore, the PTSD diagnosis appears to be grounded in basic behavioral psychology. See McCord at 1187. DSM III-R accumulated the symptoms of mental disorders by examining human reactions to certain events or stimuli. The theory behind PTSD is that a severe traumatic experience impacts upon the human psyche and exhibits itself in certain identifiable symptoms that are linked to a specific stressor or cause. In evaluating an alleged victim of sexual abuse, the psychologist compares her symptoms with known reactions to sexual abuse and attempts to correlate the victim's symptoms with the known causes of behavioral patterns that have been categorized. In that way, the PTSD diagnosis is no different from any other method or technique in behavioral psychology.

In addition, several jurisdictions that have disallowed PTSD testimony on the issue of whether sexual abuse occurred emphasized that psychologists could not pinpoint the cause of the PTSD although they could diagnose the symptoms. In the present cases, however, the experts testified that psychologists can isolate the cause of the symptoms because different stressors manifest themselves in different symptoms. Even the defense's expert in *Marquez* admitted as much. We are more persuaded by evidence as to the current **state** of the technique than by judicial determinations of validity based on evidence that is many years old. Cf. *Allewalt*, 517 A.2d at 747 (finding that psychiatrist acted within his field of special training and experience not only when making PTSD diagnosis, but in identifying recognizable stressor as well).

b. PTSD is probative and will assist the trier of fact.

All of the expert testimony in these two cases establishes that victims of sexual abuse may exhibit identifiable symptoms that have been catalogued in DSM III-R. If a complainant suffers from PTSD symptoms, it indicates that she might have been sexually abused. Thus, testimony regarding a complainant's PTSD symptoms has the tendency to show that she might have been sexually abused.

From our perusal of all of the pertinent case law concerning PTSD, we perceive two flaws. First, of the courts that have held PTSD or RTS testimony to be inadmissible to show the cause of the symptoms, several have predicated that ruling, at least in part, upon the assumption that jurors will be awed by the "aura of infallibility" of expert opinion testimony. See,

e.g., *State v. Saldana*, 324 N.W.2d 227, 230 (Minn. 1982); *State v. Taylor*, 663 S.W.2d 235, 241 (Mo. 1984) (en banc); *Hall*, 412 S.E.2d at 890. For example, the Supreme Court of California, quoting *Saldana*, reasoned that RTS testimony creates "an aura of special reliability and trustworthiness" that unduly prejudices a defendant, but it then held that the admission of RTS testimony was not prejudicial in that case. See *Bledsoe*, 203 Cal. Rptr. at 460-61, 681 P.2d at 301-02. As we stated earlier, we are not persuaded that jurors are as enthralled by experts as many appellate courts assume they are. In any event, the jury has the discretion to believe or disbelieve any testimony that it hears.

A careful analysis of the opinion in *Bledsoe* uncovers a second logical inconsistency as Judge Bivins noted in his dissent: that is, admitting PTSD evidence to explain the post-rape behavior of alleged victims but not to show that such behavior is consistent with sexual abuse. The *Bledsoe* court premised its holding that PTSD is *not* admissible to prove sexual abuse on the belief that jurors are competent enough to adjudge the significance of the alleged victim's post-rape behavior without the aid of expert testimony, utilizing their common sense to determine whether she consented to intercourse or not. *Id.*, 203 Cal. Rptr. at 460-61, 681 P.2d at 301. Yet it held that PTSD evidence is admissible, for the purpose of rebutting the defense that the victim's behavior is inconsistent with post-rape behavior, to allow an expert to apprise the jurors of the common misconceptions surrounding victims of sexual abuse about which the jurors are presumably ignorant. *Id.*, at 457-58, 681 P.2d at 298.

210 *210 The Court of Appeals in *Alberico*, relying on *Bledsoe*, agreed that a psychologist may testify about a diagnosis of PTSD symptoms but not about the cause of the symptoms. The Court claimed that while it is generally accepted that rape victims exhibit identifiable symptoms, PTSD does not allow a psychologist to "predict back" to the cause of the symptoms. Of course, the Court of Appeals and some of the other courts listed earlier^[13] would allow PTSD testimony to rebut the defense of inconsistent behavior only when the defense has made it an issue. The issue, however, is whether PTSD testimony is grounded in scientific knowledge, and the scientific validity of PTSD is not dependent on whether the defense has made it an issue in the case.

Allowing an expert to testify that PTSD symptoms are a common reaction to sexual assault for the purpose of rebutting the defense that the victim's reactions to the alleged incident are inconsistent with sexual assault is no different from allowing the expert to testify that the alleged victim's symptoms are consistent with sexual abuse. Although the Court of Appeals and some other courts maintain a bright-line distinction between these two purposes for the admissibility of PTSD testimony, we see no logical difference. Both of these purposes for which PTSD evidence is offered rest on the valid scientific premise that victims of sexual abuse exhibit identifiable symptoms. Either the PTSD diagnosis is a valid scientific technique for identifying certain symptoms of sexual abuse or it is not. Expert testimony in these two cases show that it is valid.

c. Probative value and prejudice.

Under a Rule 403 balancing test, probative evidence is admissible unless substantially outweighed by its prejudicial effect. Of course, all of the **state's** evidence is prejudicial to some extent to the defendant because it is offered to prove his or her guilt. Again, we turn to the fallacy underlying the distinction between two of the purposes for which PTSD evidence is offered. Allowing PTSD testimony to explain a complainant's apparent inconsistent behavior after the alleged incident is no less prejudicial than allowing an expert to testify that the complainant's symptoms are consistent with sexual abuse. In the first instance, the jury can just as easily infer from the explanatory testimony that the complainant was raped because the expert is testifying that rape victims act a certain way and the complainant acted that way.

We perceive two drawbacks in allowing PTSD testimony, however, both of which we address in more detail in the following section. The first is that the diagnosis relies in large part upon what the alleged victim reports to the examining psychologist. Any prejudice that might result from self-reporting, however, can be cured by cross-examination addressing the point that the diagnosis is based upon what the complainant says, not upon an independent evaluation of her truthfulness. The other consideration is the cautionary note in DSM III-R pertaining to the different meanings of the same terms in a clinical setting and in a legal setting. For example, credibility in psychology is not the same as credibility in the courtroom. As we discuss below, this concern is allayed by avoiding testimony regarding the complainant's credibility

altogether.

Thus, PTSD testimony is not unduly prejudicial. Accordingly, because PTSD evidence is both valid and probative and because it is not unduly prejudicial, it is admissible for establishing whether the alleged victim exhibits symptoms of PTSD that are consistent with rape or sexual abuse.

4. Expert Testimony is Inadmissible as to Credibility.

211 While PTSD testimony may be offered to show that the victim suffers from symptoms that are consistent with sexual abuse, it may not be offered to establish that the alleged victim is telling the truth; that is for the jury to decide. We have *211 held before that expert testimony is admissible even if it touches upon an ultimate issue to be decided by the trier of fact. See State v. Martin, 101 N.M. 595, 605, 686 P.2d 937, 947 (1984). Rule 704, however, does not sanction the practice in all cases of calling an expert witness to tell the jury that a witness is telling the truth.

Each of the experts in both of these cases testified that while they try to determine if the victim's story is inherently consistent, that does not translate into a determination of whether the victim is telling the truth. One of the experts characterized psychology as having no "truth-telling machine." The experts testified that it was not their function to pass on the credibility of complainants in the legal sense. Accordingly, we expressly prohibit direct testimony regarding the credibility or truthfulness of the alleged victim of sexual abuse. See Townsend v. State, 103 Nev. 113, 734 P.2d 705, 709 (1987) (holding that it is improper to directly characterize alleged victim's testimony as either truthful or false).

In reaching this conclusion, we are particularly impressed with the analysis of the Supreme Court of Arizona, which stated:

We are aware that Rule 704 permits "testimony in the form of an opinion or inference" even though such testimony "embraces an ultimate issue to be decided" by the jury. However, Rule 704 was not intended to permit experts to tell "the jury what result to reach." When the only evidence consists of the victim's accusation and the defendant's denial, expert testimony on the question of who to believe is nothing more than advice to jurors on how to decide the case. Such testimony was not legitimized by Rule 704, and is not admissible under Rule 702.

Moran, 151 Ariz. at 383, 728 P.2d at 253 (citations omitted); see also State v. Brodniak, 221 Mont. 212, 718 P.2d 322, 329 (1986). The quoted language from Arizona's Rule 704 in the above block is identical to New Mexico's Rule 704.

Both of the **State's** experts in *Marquez* testified that it was not their function to determine if the complainant was telling the truth, but then both testified in effect that the complainant was telling the truth and that she said she was abused by her father. What they meant, no doubt, was that the complainant's story was highly consistent within the psychological meaning of that term. Being "highly consistent," however, was incorrectly translated into the legal conclusion that the complainant was not fabricating her story. This is a good example of the cautionary note in DSM III-R about using psychological terms in the courtroom being ignored.

5. PTSD Testimony is Inadmissible to Identify Defendant.

In addition to prohibiting expert testimony as to the alleged victim's credibility, the expert may not testify as to the identity of the alleged perpetrator of the crime. See Moran, 151 Ariz. at 383, 728 P.2d at 253; State v. McQuillen, 236 Kan. 161, 689 P.2d 822, 829 (1984); State v. Hudnall, 293 S.C. 97, 359 S.E.2d 59, 62 (1987). Allowing such testimony encroaches too far upon the jury's function as arbiter of the witnesses' credibility. Although a psychologist can independently evaluate the victim's allegations of sexual abuse by cross-checking her symptoms with those recognized in DSM III-R, there appears to be no similar verification for identifying the alleged abuser. The psychologist must rely in large part upon the victim's story, and allowing the psychologist to testify as to the identity of the accused serves only to repeat what the complainant told the examining expert and thus bolster her credibility.

Incidental verification of victim's story or indirect bolstering of her credibility, however, is not by itself improper. All

testimony in the prosecution's case will tend to corroborate and bolster the victim's story to some extent. Direct comments on the victim's credibility, however, like those by the **State's** experts in *Marquez*, are beyond the scope of permissible expert opinion testimony.

212 *212 **6. RTS Testimony is Inadmissible.**

We hold that expert testimony concerning RTS is inadmissible mainly because it is not part of the specialized manual DSM III-R like PTSD is, even though there is evidence in the record that RTS is generally accepted by psychologists just like PTSD is. We do not pass on the question of whether the diagnosis itself, "rape trauma syndrome," is too suggestive or so emotionally charged as to be unduly prejudicial.

7. Expert May Not Testify as to Causality.

It almost goes without saying that the expert will not be allowed to **state** an opinion in terms of causality; in other words, the expert may not testify that the victim's PTSD symptoms were in fact caused by sexual abuse. This again vouches too much for the credibility of the victim and encroaches too far upon the province of the jury to determine the truthfulness of the witnesses. See *State v. McCoy*, 179 W. Va. 223, 366 S.E.2d 731, 737 (1988).

Allowing an expert to couch his or her testimony in terms of causality may also breach a cardinal rule of science. As the Supreme Court stated in *Daubert*, "arguably, there are no certainties in science." ___ U.S. at ___, 113 S.Ct. at 2795. In other words, allowing an expert to testify that a complainant was in fact raped would allow the expert to give testimony that is not grounded in scientific principle and which does not tend to show what the testimony is offered to prove.

F. Disposition of Alberico and Marquez

In *Alberico*, the Court of Appeals erred in overturning the defendant's convictions. The trial court did not abuse its discretion in admitting expert opinion testimony on PTSD. Although he incorrectly characterized the testimony as inherently reliable, the trial judge correctly found that the expert testimony was grounded in valid scientific principle and was probative under Rule 702, and he correctly ruled that it was not unduly prejudicial under Rule 403. Moreover, the **State's** expert confined her testimony to whether the complainant's PTSD symptoms were consistent with sexual abuse, and she did not pass upon her credibility, nor did she use the term RTS before the jury.

In *Marquez*, however, both of the **State's** experts testified that the complainant was not fabricating her story, and one of the experts identified the defendant as her alleged abuser. Defense counsel objected to this testimony and moved for a mistrial. Besides the testimony of the complainant, there was no other direct evidence of sexual abuse in *Marquez* except for the testimony of the experts. Because that case boiled down to a "swearing match" between the defendant and the complainant, it is likely that the expert testimony pertaining to the credibility of the complainant and the identity of the perpetrator was instrumental in the jury's decision to convict. Notwithstanding the trial court's curative instruction, it was prejudicial error to allow the experts to stray from the issue of sexual abuse and testify as to the complainant's truthfulness and the identity of the perpetrator.

The trial judge also erred in *Marquez* by ruling that PTSD testimony would assist the jury to understand the behavior of sexually abused children. That was never an issue in the case. The defense simply claimed that no sexual abuse happened. The defense did not claim that the complainant's behavior after the alleged incidents was inconsistent with that of a victim of sexual abuse. Accordingly, the PTSD testimony could not have been admissible to rebut that claim.

V. CONCLUSION

The principal flaw in the Court of Appeals opinion and other cases disallowing PTSD testimony is the assumption that

jurors will give undue weight to expert testimony, not just PTSD testimony but all expert testimony. Assuming that jurors will defer to expert opinion testimony is not a valid premise under a Rule 702 analysis. The proper focus is whether the expert testimony is competent; then the trier of fact has the discretion to evaluate expert testimony *213 just like any other admissible evidence.

Once that objection is laid aside and the focus is on the scientific validity of the experts' testimony, it is clear from the evidence in each of the cases below that the trial judge did not abuse his discretion in admitting PTSD testimony. Requiring proof that the scientific theory or methodology is valid and reliable or founded and recognized in science is the proper focus for determining what is "scientific knowledge" under Rule 702 instead of a "general acceptance" calculus under the *Frye* test.

The New Mexico Rules of Evidence "do not require clairvoyance or omnipotence" from experts. "The court must merely determine whether the scientific procedure which supports the testimony is based on a well-recognized scientific principle or discovery and whether it is capable of supporting opinions based upon a reasonable probability rather than conjecture." *State v. Martin*, 101 N.M. 595, 606, 686 P.2d 937, 948 (1984) (quoting *Blea*, 101 N.M. at 326, 681 P.2d at 1103). Thus, the proper focus should be directly on the validity of the science rather than indirectly upon a "nose-count" in a determination of general acceptance.

PTSD testimony is also probative of sexual abuse in that it tends to prove what it purports to prove. The expert testimony below was convincing to that effect. The case law to the contrary upon which the Court of Appeals relied was logically inconsistent and based upon scientific evidence that was apparently out-dated. In addition, the Court of Appeals standard of admissibility of scientific evidence was too high in that it required conclusive proof of sexual abuse.

The testimony regarding PTSD also was not unduly prejudicial. It was no more prejudicial than allowing testimony to explain that rape victims exhibit certain behavior to rebut the defense that the alleged victim's conduct was inconsistent with having been sexually abused. As Maryland's highest court stated:

[A] jury, with the assistance of a competent expert, can understand that a diagnosis of PTSD tends to negate consent where the history, as reviewed by the expert, reflects no other trauma which in the expert's opinion could produce that medically recognized disorder. By requiring a full explanation on direct, by allowing liberal cross-examination, and by proper jury instructions, all of which occurred in this case, the trial court can prevent any impression that the psychiatric opinion is like a chemical reaction.

Allewalt, 517 A.2d at 751.

Furthermore, employing the traditional abuse of discretion standard of review, instead of the per se or de novo standard of review used by the Court of Appeals here, properly focuses on the evidence in the case to determine the admissibility of scientific testimony instead of upon the conclusions of other lawyers and judges. A de novo review tends to lead to "an uncritical acceptance of prior *judicial*, rather than scientific, opinion as a basis" for determining the validity of the scientific technique. See *Downing*, 753 F.2d at 1236. For example, the Court of Appeals relied heavily upon the 1984 California Supreme Court opinion in *Bledsoe* to conclude that PTSD or RTS should not be introduced to prove that a crime had occurred. The experts in both of these cases, however, testified that their diagnosis of PTSD and its underlying cause was reliable.

We think that the abuse of discretion standard makes the proper focus: that is, on the evidence in this case rather than on the evidence in other cases from other jurisdictions, which are often based on scientific data that is outdated. This approach allows for the introduction of ever-expanding knowledge of science rather than relying upon fixed-in-time conclusions.

Thus, we answer the two questions that we requested the parties to brief in *Alberico* in the affirmative. A properly qualified mental health professional may testify that in the expert's opinion an alleged victim of sexual abuse suffers from PTSD. In addition, the expert may testify that the complainant's symptoms are consistent with those suffered by someone *214 who has been sexually abused. Accordingly, the Court of Appeals opinion in *Alberico* is reversed. The expert in *Alberico*

testified within the boundaries that we have outlined in this opinion. That case shall be remanded to the district court for reinstatement of **Alberico's** conviction.

In *Marquez*, however, we answer the second question that we requested the parties to brief negatively. The Court of Appeals reversal of Marquez's conviction, therefore, is affirmed, although on different grounds. While we hold that it was not error to admit expert testimony regarding PTSD in *Marquez*, the **State's** experts testified about the complainant's truthfulness, and that was reversible error. That case shall be remanded to the district court for a new trial.

IT IS SO ORDERED.

BACA and FRANCHINI, JJ., concur.

[1] To avoid duplicating our efforts, we consolidate **State v. Alberico**, No. 20,282 and **State v. Marquez**, No. 20,357.

[2] In its Memorandum Opinion of January 16, 1992, the Court of Appeals based its reversal of Marquez's conviction upon the holding and rationale in its opinion in **Alberico**. The Court of Appeals opinion in **State v. Alberico**, 116 N.M. 778, 861 P.2d 219 (App. 1991), cert. granted, Jan. 14, 1992 (No. 20,282) shall be published.

[3] See, e.g., **State v. Garcia**, 94 N.M. 583, 585, 613 P.2d 725, 727 (Ct.App.) (victim's mental condition may be relevant in rape case when **State** charges that force or coercion caused mental anguish), cert. denied, 94 N.M. 675, 615 P.2d 992 (1980).

[4] See **State v. Newman**, 109 N.M. 263, 266, 784 P.2d 1006, 1009 (Ct.App.) (testimony admissible to assist jury in understanding behavior of sexually abused children), cert. denied, 109 N.M. 262, 784 P.2d 1005 (1989).

[5] After the expert opinion testimony is deemed admissible under Rule 702, perhaps then a consideration of possible deference could be made under a Rule 403 analysis of whether the probative value of the evidence might be "substantially outweighed by the danger of unfair prejudice, confusion of the issues or misleading the jury..." SCRA 1986, 11-403.

[6] The critical and often quoted language from *Frye* is:

Just when a scientific principle or discovery crosses the line between 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*.

Frye v. United States, 293 F. 1013, 1014 (D.C. Cir.1923) (emphasis added).

[7] See, e.g., **State v. Day**, 94 N.M. 753, 758, 617 P.2d 142, 147 (insanity), cert. denied, 449 U.S. 860, 101 S.Ct. 163, 66 L.Ed.2d 77 (1980); *City of Albuquerque v. Ackerman*, 82 N.M. 360, 362, 482 P.2d 63, 65 (1971) (value of real property); **State v. Hughes**, 108 N.M. 143, 145, 767 P.2d 382, 384 (Ct.App. 1988) (value of personal property), cert. denied, 108 N.M. 115, 767 P.2d 354 (1989); *Estrada v. Cuaron*, 93 N.M. 283, 285, 599 P.2d 1080, 1082 (Ct.App.) (speed), cert. denied, 93 N.M. 172, 598 P.2d 215 (1979); SCRA 1986, 11-901(B)(2) (handwriting); SCRA 1986, 11-901(B)(5) (voice).

[8] As stated over one hundred years ago:

"The medical science is progressive, and we have no security that all the theories now in vogue will not be upset in thirty years." Yet the uncertainty that may attach to the theories of experts can not impair or do away with the necessity of that class of testimony on questions of science, skill, trade, or the like. Persons conversant with the subject matter, termed "experts," are permitted to give their opinion in evidence whenever the subject-matter of inquiry is such that inexperienced persons are unlikely to prove capable of forming a correct judgment upon it without such assistance. *Lynch v. Grayson*, 5 N.M. 487, 502, 25 P. 992, 996 (1891) (citations omitted).

[9] It is not necessary to set out in detail an explanation of PTSD or RTS here. For more background information on PTSD and RTS, see **State v. Allewalt**, 308 Md. 89, 517 A.2d 741, 746 n. 6 (1986); *People v. Taylor*, 75 N.Y.2d 277, 552 N.Y.S.2d 883, 885-87, 552 N.E.2d 131, 133-35 (1990); and **State v. Black**, 109 Wash.2d 336, 745 P.2d 12, 16 (1987) (en banc); see also David McCord, *The Admissibility of Expert Testimony Regarding Rape Trauma Syndrome in Rape Prosecutions*, 26 B.C.L.Rev. 1143, 1146-56 (1985).

[10] See *Sexton v. State*, 529 So.2d 1041, 1049 (Ala. Crim. App. 1988); **State v. Moran**, 151 Ariz. 378, 382, 728 P.2d 248, 252 (1986); *People v. Bledsoe*, 36 Cal.3d 236, 203 Cal. Rptr. 450, 460-61, 681 P.2d 291, 301 (1984) (in bank); *People v. Fasy*, 829 P.2d 1314, 1317 (Colo. 1992); *Wheat v. State*, 527 A.2d 269, 274 (Del. 1987); **State v. Batangan**, 71 Haw. 552, 799 P.2d 48, 52 (1990); **State v. Roles**, 122 Idaho 138, 146, 832 P.2d 311, 319 (Ct.App. 1992); **State v. Gettier**, 438 N.W.2d 1, 5 (Iowa 1989); *Commonwealth v. Mamay*, 407 Mass. 412, 553 N.E.2d 945, 951 (1990); *People v. Beckley*, 434 Mich. 691, 456 N.W.2d 391, 399 (1990); *People v. Taylor*, 75 N.Y.2d 277,

552 N.Y.S.2d 883, 890, 552 N.E.2d 131, 138 (1990); *Smith v. State*, 100 Nev. 570, 688 P.2d 326, 327 (1984); *State v. Hall*, 330 N.C. 808, 412 S.E.2d 883, 890 (1992); *State v. Bachman*, 446 N.W.2d 271, 277 (S.D. 1989); *State v. Catsam*, 148 Vt. 366, 534 A.2d 184, 187 (1987); *State v. Robinson*, 146 Wis.2d 315, 431 N.W.2d 165, 172 (1988); *Lessard v. State*, 719 P.2d 227, 234 (Wyo. 1986).

[11] See *Kruse v. State*, 483 So.2d 1383, 1386 (Fla. Dist. Ct. App. 1986), *review dismissed*, 507 So.2d 588 (Fla. 1987); *Simmons v. State*, 504 N.E.2d 575, 579 (Ind. 1987); *State v. Gettier*, 438 N.W.2d 1, 6 (Iowa 1989); *State v. Marks*, 231 Kan. 645, 647 P.2d 1292, 1299 (1982); *State v. Allewalt*, 308 Md. 89, 517 A.2d 741, 751 (1986); *State v. Liddell*, 211 Mont. 180, 685 P.2d 918, 923 (1984); *Townsend v. State*, 103 Nev. 113, 734 P.2d 705, 708 (1987); *State v. Whitman*, 16 Ohio App.3d 246, 475 N.E.2d 486, 488 (1984); *State v. Middleton*, 294 Or. 427, 657 P.2d 1215, 1221 (1983); *State v. McCoy*, 179 W. Va. 223, 228-29, 366 S.E.2d 731, 736-37 (1988).

[12] See *State v. Moran*, 151 Ariz. 378, 385, 728 P.2d 248, 255 (1986); *People v. Bledsoe*, 36 Cal.3d 236, 203 Cal. Rptr. 450, 460, 681 P.2d 291, 301 (1984); *State v. Batangan*, 71 Haw. 552, 799 P.2d 48, 52 (1990); *People v. Beckley*, 434 Mich. 691, 456 N.W.2d 391, 405 (1990); *State v. Saldana*, 324 N.W.2d 227, 230 (Minn. 1982); *State v. Taylor*, 663 S.W.2d 235, 240 (Mo. 1984) (en banc); *People v. Taylor*, 75 N.Y.2d 277, 552 N.Y.S.2d 883, 890, 552 N.E.2d 131, 138 (1990); *State v. Hall*, 330 N.C. 808, 412 S.E.2d 883, 890 (1992); *State v. Hudnall*, 293 S.C. 97, 359 S.E.2d 59, 62 (1987); *State v. Rimmasch*, 775 P.2d 388, 404 (Utah 1989); *State v. Black*, 109 Wash.2d 336, 745 P.2d 12, 18 (1987) (en banc); *Spencer v. General Elec. Co.*, 688 F. Supp. 1072, 1076 (E.D.Va. 1988).

[13] See *supra* note 10.

Save trees - read court opinions online on Google Scholar.