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Judicial Evaluation of Expert Opinions: Recent Developments

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JUDICIAL EVALUATION OF EXPERT OPINIONS:
RECENT DEVELOPMENTS

INTRODUCTION

There is little doubt that the United State Supreme Court's decision in Daubert v. Merrell Dow Pharmaceuticals, Inc. opened a new chapter in the use of opinion testimony. Indeed the very name of the case has entered the legal lexicon not simply as a case examining the contours of Federal Rule of Evidence 702, but now describes an entire set of procedures and concerns. We now have "Daubert motions", "Daubert hearings", "Daubert websites". Daubert has its own definition on Wikipedia (don't use it) and can be used as a verb. The Judge "Dauberted" my expert; I've been "Daubertized". Regardless of whether Daubert did or did not signal a fundamental sea change, it is surely one of the most cited federal cases and its analysis (and progeny) have exerted a profound impact on federal and state courts alike. There are literally thousands of references to Daubert. In fact, in the tenth circuit alone (including its district courts) there are 162 references since 2007. In New Mexico there are 35 references to the case and another 87 that refer to State v. Alberico the New Mexico Supreme Court decision that imported the Daubert standard into our law.

pite the ongoing barrage of decisions, there have been no significant recent developments in the substantive law, rather, the cases simply involve the application of existing principles to the never-ending, always changing subject matter of expert testimony. So, why an article on a subject that has been so overworked? First, there are two recent New Mexico cases from the supreme court that further illuminate important issues relating to expert opinion evidence. It is worthwhile to examine them. Second, there is value in revisiting a subject to perhaps extract some additional insights. Third, there is some benefit in seeking to consolidate and articulate the guiding principles – in increasingly popular parlance, “the rules of the road” – as pertinent to opinion evidence. What follows then, is an attempt to satisfy these three points of discussion.

continued on page 11
The paper is divided into three sections. First, it addresses the basic rules of Daubert and Rule 702 under both federal and New Mexico law. Second, it attempts to distill in summary form the essential principles of the Alberico scientific validity analysis. The focus is on the validity analysis because of its centrality to the admissibility of scientific opinion evidence. Third, it examines the two recent New Mexico decisions.

**Basic Rules of Daubert**

**Federal**

Daubert is now embodied in Federal Rule of Evidence 702 which provides:

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

What does not appear in the plain text of the Rule, but what has emerged as perhaps the most prominent teaching of Daubert is that the trial court has become the “gatekeeper” for the admissibility of scientific testimony whose responsibility is to “ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” The proponent of the expert scientific opinion testimony must demonstrate “that the method employed by the expert in reaching the conclusion is scientifically sound and that the opinion is based on facts which sufficiently satisfy Rule 702’s reliability requirements.”

In the federal system, Daubert and Rule 702 are not limited to scientific evidence, but extend to all expert testimony “based on ‘technical’ and ‘other specialized’ knowledge.” It is the “technical and other specialized knowledge” aspect brought into the Daubert fold in Kumho Tire that, as discussed infra, separates the federal standard from that adopted by New Mexico. This paper refers to opinion testimony based on “technical or other specialized knowledge” as “non-scientific evidence” simply for purposes of differentiation.

Justice Blackmum’s direction to trial courts was remarkably explicit. The trial court in the role of “gatekeeper” must first determine “whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.” The trial court must also determine whether there was a nexus between the expert opinion and the specific facts of the case – what the court referred to as “the fit.” The Supreme Court described the “fit” as: “another aspect of relevancy”, that is “whether expert testimony proffered in the case is sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute.”

The central teaching of Daubert, however, is that the science underlying the expert’s methodology must be sufficiently reliable to permit the jury to consider the opinion. The court explained that in the language of science “validity” means “does the principle support what it purports to show?” and “reliability” means “does the application of the principle produce consistent results.” The court made clear, however, that the concern of Rule 702 was with “evidentiary reliability – that is, trustworthiness,” and that the scientific validity analysis was an important aspect of determining whether the opinion was worthy of a fact-finder’s trust. The court in Daubert listed a variety of potential factors which could be examined in order to determine the validity or evidentiary trustworthiness of the particular scientific methodology at issue. The court included without limitation:

1. Whether the scientific methodology can be or has been tested:
2. Whether “the theory or technique has been subjected to peer review and publication.”
3. Whether there is a “known or potential rate of error” for the scientific technique used by the expert to support the opinion.
4. Whether there is “general acceptance” of the scientific technique in the “relevant scientific community.”

**New Mexico’s Adoption of Daubert**

New Mexico has by case law adopted the general principles of Daubert. Significantly, New Mexico has not adopted the Kumho Tire extension of Daubert to any expert testimony of a technical or specialized nature. Nor has New Mexico followed the federal lead and amended its Rule 11-702 which still provides:

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

“This Court has discerned three prerequisites in Rule 11-702 for the admission of expert testimony: (1) experts must be qualified; (2) their testimony must assist the trier of fact; and (3) their testimony must be limited to the area of scientific, technical, or other specialized knowledge in which they are qualified.” Once a court determines that expert testimony
satisfies the requirements of Rule 11-702, the court must still determine the materiality of the opinion and, if appropriate, conduct the balancing requirement by Rule 11-403. “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.”

In general, our Supreme Court has determined that “[w]hen 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.”

“Under the Rules [of Evidence] the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” Where Daubert/Alberico apply, however, our courts focus on the same validity analysis that is found in federal court. The basic principles articulated by our appellate courts are summarized below.

Although there is a natural tendency to view Daubert/Alberico as an obstacle to the presentation of expert testimony, our Supreme Court has reminded us that the bottom line is whether the opinion is supported by a reasonable probability. The New Mexico Rules of Evidence “do not require clairvoyance or omnipotence” from experts; “[t]he 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.’”

NEW MEXICO VALIDITY ANALYSIS

General

1. “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....[citations omitted]. 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 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.

2. In determining reliability “the trial court should consider the following factors: (1) whether a theory or technique can be (and has been) tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) the known or potential rate of error in using a particular scientific technique and the existence and maintenance of standards controlling the technique’s operation; and (4) whether the theory or technique has been generally accepted in the particular scientific field.”

Testing: “Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified; indeed, this methodology is what distinguishes science from other fields of human inquiry.”

Peer review and publication: “Peer review and publication is important because “submission to the scrutiny of the scientific community is a component of ‘good science,’ in part because it increases the likelihood that substantive flaws in methodology will be detected.”

Rate of Error: “The third factor of the Daubert/Alberico analysis requires us to examine the known or potential rate of error of the methodology.”

Maintenance of standards controlling the technique: “We examine ‘the existence and maintenance of standards controlling the technique’s operation.’”

Acceptance by relevant scientific community: Finally, while “general acceptance is not a requirement for admissibility under [Rule 11-702], it is a factor the court may consider.” As noted in Daubert, “a known technique which has been able to attract only minimal support within the community.” Downing, 753 F.2d at 1238, may properly be viewed with skepticism.

Expert’s testimony must rest on a reliable factual foundation. Where expert assumes certain facts those facts must be proved. Where expert’s factual basis is called sufficiently into question, a trial judge must determine whether the testimony has a reliable basis in the knowledge and experience of the discipline.

The NEW DECISIONS

State v. Torrez

The most recent New Mexico Supreme Court published decision that contains substantive discussion of evidentiary standards that relate to expert testimony is State v. Torrez. This opinion from May of 2009 arises out of a criminal case. Defendant was on trial for first degree murder arising out of the allegations that he fired a high-powered rifle at a house occupied by persons attending a party. The shooting resulted from a series of events that had occurred throughout the evening. Defendant testified he was shooting in self-defense. The prosecution’s theory of the case, however, was that Defendant was or had been a member of a Taos gang, that the fights, threats, and gunfire were the result of a gang dispute and that defendant was acting in accordance with “gang culture.”

Specifically the prosecution sought to establish that Defendant returned to the house and opened fire with a high powered rifle because he had been threatened and disrespected earlier in the evening.

The prosecution offered a detective as an expert witness to “‘gang-related law enforcement and gang culture.’” The trial court permitted the testimony and the jury convicted defendant. There were two major issues before the supreme court: (1) the qualification of the expert; and (2) how to analyze the reliability of the expert’s opinion.

At the outset, this particular expert was not really offering “scientific” testimony. Rather his opinions were drawn from his own experience as a law enforcement officer with substantial gang-related work. Thus, the court concluded that the requirements of Alberico are “inapplicable to expert testimony that is based on the expert’s specialized knowledge.”

So why in a discussion of the current state of scientific expert testimony under New Mexico law are we even bothering with Torrez? There are several reasons. First, the line between scientific and non-scientific testimony is not always so clear. There is confusion at times among both courts and litigants. Second, parties often argue the applicability of Daubert/Alberico regardless of the nature of the testimony and sometimes regardless of the nature of the issue. Indeed, in Torrez itself, counsel for the defendant argued that the detective’s opinions were “junk science”, that the methodology could not be tested, and therefore the detective’s opinions were unreliable under the Daubert/Alberico standard.

In any event, the Torrez court quickly noted the distinction between opinions
The court found that the requirements of Alberico were inapplicable to the detective’s opinion; however, the inapplicability of Alberico did not relieve the trial court of its gate-keeping function, that is to insure that the testimony was reliable.\textsuperscript{41}

Rather, the non-scientific nature of the opinion changes the inquiry.

In other words, even with non-scientific expert testimony, the trial court must exercise its gate-keeping function and ensure that the expert’s testimony is reliable. However, when testing the reliability of non-scientific expert testimony, rather than testing an expert’s scientific methodology as required under Daubert and Alberico, the court must evaluate a non-scientific expert’s personal knowledge and experience to determine whether the expert’s conclusions on a given subject may be trusted.\textsuperscript{42}

This statement is very reminiscent of the same inquiry as to the expert’s qualifications. And in fact, the court noted that although similar the two inquiries are distinct.

The first inquiry, testing an expert’s qualifications, requires that the trial court determine whether an expert’s skills, experience, training, or education qualify him or her in the relevant subject. Although the second inquiry uses these \textit{same factors}, the court uses them to test the validity of the expert’s conclusions. In this way, an expert may be qualified to offer opinions on a subject, but those opinions may nevertheless be unreliable in that they do not prove what they purport to prove.\textsuperscript{43}

What does this mean? I find this section of the opinion somewhat opaque. It seems to me if an expert is qualified by \textit{specialized knowledge}, here gained through experience, then the qualifications have little to do with the reliability of the opinion and the inquiry actually does move toward Daubert/Alberico by seeking to determine evidentiary trustworthiness. If this view is wrong then there is a real circularity to the reasoning in Torrez – if the expert is qualified to offer the opinion that gang members retaliate in violent ways when disrespected, then those same qualifications would permit the testimony that, in this case, the defendant’s motive was to retaliate because he had been operating within the mores of "gang culture".

It makes more sense to read Torrez as requiring a fit between the expert’s general qualifications and the specific opinion testimony in the case. In Torrez the fit was provided by sufficient evidence of Defendant’s gang affiliation presented to the jury and the court’s conclusion that the expert’s qualifications allowed him to testify regarding gang member motives resulting from various acts of disrespect some of which could have been applicable to defendant.

In any event, the court concluded that the detective was qualified and that his opinions were admissible. The court, however, then turned to the balancing test of Rule 11-403\textsuperscript{44} and determined that the opinion was more prejudicial than probative.\textsuperscript{45} The court found the opinion on gang motivation was unfairly prejudicial because the state failed to offer corroborative evidence that the incident was somehow related to a gang code of conduct or to gang culture or that defendant was even a member of a gang at the time.\textsuperscript{46} I would suggest that the court might have reached a similar result by finding the opinion unreliable because there was an insufficient fit.

The opinion beg the question whether the standard for what I’ve been calling non-scientific opinion evidence is higher or lower than the standard set by Alberico for scientific opinion. We know it is different, but whether the court in its gatekeeper function is more or less vigilant in determining the reliability of the opinion is a question that is not clearly answered by our existing case law. It may not matter so long as the court fulfills its obligation to assure evidentiary trustworthiness.

\textbf{State v. Downey.}

The second recent New Mexico case is State v. Downey.\textsuperscript{47} It has long been the rule that proffered expert testimony can be excluded where it is not based on facts similar to those in existence at the time of the alleged events.\textsuperscript{48} In Downey, the New Mexico Supreme Court examined the relationship between the expert testimony and the actual facts of the case. What Daubert referred to as the "fit".\textsuperscript{49} "The primary inquiry is whether the scientific methodology ‘fits’ the facts of the case and thereby proves what it purports to prove."\textsuperscript{50}

In Downey the issue was whether the testimony of an expert witness on retrograde extrapolation was properly admitted. Retrograde extrapolation purports to calculate a blood alcohol level at the time of an alleged offense.
based upon a subsequent blood alcohol test.\textsuperscript{51}

Defendant was charged with vehicular homicide and one of the bases for his culpability was driving under the influence of intoxicating liquor. As part of its case, the state offered Ron Smock as an expert witness in the fields of chemistry and toxicology. He had been previously qualified as an expert 300 times in state court though only once in the science of retrograde extrapolation.\textsuperscript{52} The district court permitted his testimony giving a potential range of blood alcohol at the time of the incident.\textsuperscript{53} Significantly, there was no challenge to the reliability or validity of the science of retrograde extrapolation and so for purposes of decision only the court assumed that retrograde extrapolation is a valid scientific method and as such subject to the strictures of Alberico.\textsuperscript{54} The court then determined that the expert testimony had been based on factual assumptions unsupported by the evidence and, therefore, was not grounded in a “factual assumption” that had an “evidentiary foundation in the record.”\textsuperscript{58} Rather, the court found that the expert did not know when the defendant had consumed his last drink and that therefore the expert could not determine the phase of the body’s metabolism of the alcohol, thus making any testimony relating to the defendant’s blood alcohol at the time of the alleged offense purely speculative.\textsuperscript{59} The court concluded that because the expert’s testimony was “nothing more than conjecture” it should not have been admitted. The supreme court’s construction of Rule 11-702 makes clear that whatever scientific method is employed the analysis must be based upon facts that would result in an opinion that is relevant to case, and the facts and the scientific method sought to be applied.\textsuperscript{57} The court then determined that the expert testimony was inadmissible under the Alberico standard.\textsuperscript{55} The court first determined that Rule 11-702 requires that expert testimony “assist the trier of fact” because expert testimony must be relevant to be admissible.\textsuperscript{56} The court next determined that Rule 11-702 and its judicial interpretation requires the appropriate “fit” between the underlying facts and the scientific method sought to be applied.

\begin{center}
\textbf{...whatever scientific method is employed the analysis must be based upon facts that would result in an opinion that is relevant to case, that is there must be a fit between the science and the facts at issue.}
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that is there must be a fit between the science and the facts at issue.

Thus, Downey is another case in which the fit between the expert opinion and the facts of the case was found lacking and therefore, the expert’s opinions unreliable. Significantly, the court specifically notes that although experts often base their opinions on assumptions, there must be an evidentiary foundation for the assumption in the record. The key assumption for the expert’s opinion was that Defendant did not consume any more alcohol following the collision and that he was therefore post-absorptive at the time of the “BAC” test and at the time of the accident. The state, however, produced no evidence when Defendant last consumed alcohol or how much he had consumed. Under these circumstances the court concluded that any range of blood alcohol values was “mere conjecture” and the opinion testimony did not survive scrutiny under Alberico.81

CONCLUSION

The law of New Mexico continues to evolve in particularly nuanced ways. The court in Torrez provides insight into how the trial court is to fulfill its gatekeeper function when the opinion is based on “technical or other specialized knowledge.” The court adopts a standard that recalls the evaluation of the expert’s qualifications, but appears to require a firm nexus between the qualifications and the facts underlying the opinion. In Downey, the court addresses an important facet of the test for scientific validity, whether the opinion and the underlying factual basis for the opinion are a sufficient “fit” to bring the opinion within the circle of evidentiary trustworthiness.

ENDNOTES

1. 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993)
2. The tenth circuit has noted that “we use Daubert as a legal shorthand for the district court’s obligation to test a proposed expert’s methodology in advance of his or her testimony.” United States v. Nacchio, 555 F.3d 1234, 1238 n.3 (10th Cir. 2009).
4. As noted by the court in United States v. 14.38 Acres of Land, 80 F.3d 1074, 1078 (5th Cir. 1996), the decision in Daubert did not signal a “sea change over federal evidence law.” Rather, “[a] review of the caselaw after Daubert shows that the rejection of expert testimony is the exception rather than the rule.” Advisory Committee Note 2000 Amendment to Rule 702. The Advisory Committee Notes to the 2000 Amendment to Rule 702 are a succinct source of commentary on the legal developments subsequent to the Supreme Court’s rule in Daubert v. Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). On the other side of the coin, the Project on Scientific Knowledge and Public Policy (part of the Department of Environmental & Occupational Health) of George Washington University School of Public Health & Health Services) published a paper entitled “The Most Influential Supreme Court Ruling You’ve Never Heard Of”.
5. There is one school of thought that Justice Blackmun’s majority opinion simply fulfilled the promise (and mandate) of Rule 702 which, prior to Daubert, had arguably been ignored by the bulk of the federal judiciary in favor of the general acceptance in the field test from Frye v. United States, 293 F.2d 1013 (D.C. Cir. 1923). See, e.g. James River Ins. Co. v. Rapid Funding, LLC, 2009 U.S. Dist. LEXIS 14199, 10-14 (D. Colo. Feb. 24, 2009).
7. Rule 11-702 NMRA 2009
8. Goebel v. Denver & Rio Grande Western Railroad Co., 215 F.3d 1083 (10th Cir. 2000) (“This gatekeeper function requires the judge to assess the reasoning and methodology underlying the expert’s opinion, and determine whether it is scientifically valid and applicable to a particular set of facts.”).
12. Daubert, 509 U.S. at 592-93; United States v. Nacchio, 555 F.3d 1234, 1238 n.3 (10th Cir. 1999) (“district court’s obligation to test a proposed experts methodology in advance of his or her testimony”); Burlington Northern & Santa Fe Ry. v. Grant, 505 F.3d 1013, 1030 (10th Cir. 2007) (“In performing this gatekeeper role, the judge must assess the reasoning and methodology underlying the expert’s opinion, then determine whether it is scientifically valid and applicable to a particular set of facts.”).
15. Daubert, 509 U.S. at 590 n. 9
16. Id.
17. “[W]e do not presume to set out a definitive checklist or test.” Daubert, 509 U.S. at 593.
18. Daubert, 509 U.S. at 593-94; see also Justice Breyer’s formulation in Kumho Tire Co. v. Carmichael, 526 U.S. at 149-50.
20. See Banks v. IMC Kalium Carlsbad Potash Co. 2003 NMSC 26, ¶ 19, 134 N.M. 421, 425, 77 P.3d 1014, 1018; State v. Lentz, 2005-NMCA-111, ¶ 4, 138 N.M. 312, 315.In a pre-Kumho case our Supreme Court determined that it would not apply Daubert principles to expertise based on experience or training. State v. Torres, 1999-NMSC-010, ¶43, 127 N.M. 20, 33-34; Banks v. IMC Kalium Carlsbad Potash Co., 2003-NMSC-026, ¶ 19, 134 N.M. 421, 425 (2003) ("In Torres, 1999 NMSC 10, P 43, further, we limited the requirements of Daubert/Alberico to testimony that requires scientific knowledge. We
held that "application of the Daubert factors is unwarranted in cases where expert testimony is based solely upon experience or training." Id. (quoting Compton v. Subaru of Am., Inc., 82 F.3d 1513, 1518 (10th Cir. 1996), overruled by Kumho Tire Co. v. Carmichael, 526 U.S. 137, 119 S. Ct. 1167 (1999)).

Thus, after Kumho Tire Co., we apply Daubert somewhat differently than do the federal courts."


32. Anderson, 118 N.M. at 299, 881 P.2d at 44.

33. Daubert, 509 U.S. at 594.

34. State v. Downey, 2008-NMSC-061, ¶ 34, 145 N.M. 232, 240 ("Experts may, and often do, base their opinions upon factual assumptions, but those assumptions in turn must find evidentiary foundation in the record."); TK-7 Corp v. Estate of Barbouti, 993 F.2d 722, 732-33 (10th Cir 1993).