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Ethical Rules for Technical Experts

There are a number of ways to characterize the different legal and ethical rules that apply to experts who become involved in the litigation process. One way is to consider first the ethical rules that define and establish professionalism for trial attorneys and judges and then examine how those rules are passed on to the experts who testify. The legal professional and ethical rules, with only minor variations from state to state, are designed to be self-imposed, subject to enforcement and discipline by the trial courts or appellate courts during the course of litigation. Furthermore, these rules, which are universally adopted by attorneys and judges, are enforced by ethics and disciplinary committees that deal with infractions reported outside of the course of a particular litigation. Another approach to understanding might be to step through the traditional rules and assumptions about how ordinary witnesses should be treated when they become caught up in the legal system and compare those descriptions with the way things are handled when experts are called as witnesses, as described in the following quote from Samuel R. Gross.

> *Imagine how adversarial fact finding would function under the following regime: the lawyers on each side of a dispute, acting in secret, choose people from an almost indefinitely large array and designate them as the witnesses; these witnesses are paid handsomely for their testimony; lawyers can preemptively hire witnesses in order to keep them from testifying when their honest testimony might help the other side; many witnesses make a business of testifying, and advertising their services; the attorneys control the information and the issues on which their witnesses testify; wit-*

> *nesses are allowed to testify to matters beyond their personal knowledge and to evaluate, as well as to present information; the existing rules of pre-trial discovery are curtailed so that the identity and the evidence of many potential witnesses can be concealed from the opposing party; the usual rules of evidence are inapplicable at trial; and, finally, the subject matter of the testimony by these witnesses is intrinsically confusing, if not incomprehensible, to judges and jurors.*
>
> *Odd as it may seem, this is an accurate thumbnail sketch of the present mode of using expert information in American courts.*[1]

Some technical experts are formally bound by the ethics and professional codes of conduct of their own professions (by dint of membership in certain organizations or certifications granted by others). In the absence of such codes, many experts can be convinced that they need to comply with such measures on a strictly voluntary basis. In this chapter, we'll define and then contrast various sets of ethics rules for different professional communities of interest. We'll also consider rules of conduct for judges and attorneys and explore how those rules apply to the experts who testify.

A significant problem for IT expert witnesses is that there may not be any generally recognized body of ethics rules applied to and enforced by the members of the IT professional communities of interest. Furthermore, even when a particular expert belongs to an IT professional community that has ethics rules, those rules may not relate (directly or even indirectly) to the duties of such an expert when acting as a witness in litigation. Because of this, experts may find themselves looking to the lawyers who hire them for guidance, not only about the formal and informal rules of procedure but also for the ethical guidelines that govern the litigation process. Such guidelines call for complying with the letter and the spirit of the established rules of procedure for litigation. Many of the generally understood and fairly intuitive rules about the conduct of discovery that takes place with regular witnesses and documents are suspended when it comes to experts.

A Failure Analysis: Examples of Ethics-Challenged Experts

Perhaps the best way to demonstrate how the failure of foundation components affects the stability of structures is to use the time-honored technique of failure analysis. The entire edifice of trial by advocacy relies on the common-sense rules of professional ethics and the cardinal principles of professional conduct. Here our failure analysis will consist of analyzing what happens when the violation of these ethical

1. Gross, Samuel R. "Expert Evidence." *University of Wisconsin Law Review*, vol. 1991, p. 1113.

rules causes the structure of an apparently successful litigation to fail. We'll begin by examining two cases in which the courts found that the experts failed to act ethically. In these cases the failure of the technical experts to testify truthfully cost the parties that employed them judgments of over $100 million. In each case, the expert had determined that a patent or family of patents was valid and enforceable against another party that had been alleged to have wrongfully benefited from the infringement of the original patents. These were, in essence, high-stakes legal duels in which the persuasive testimonies of the respective technical experts were the keys to the kingdom—and to the large judgments rendered by the respective juries.

While these stories require you to consider the proceedings that gave rise to the questionable testimony of the experts in some detail, in doing so you can also better understand how experts can yield to the temptation to become advocates. Remember that by becoming an advocate, the expert witness violates basic ethical rules. Although limiting your perspective to one side of the controversy might appear to resolve ethical conflicts and might furthermore make it far easier to deliver the most persuasive testimony, these advantages come at a premium. For the price of advocacy is most often surrendering your ability to deliver the most truthful and useful information. In particular, you sacrifice your ability to deliver appropriate information both during discovery, for the benefit of the attorneys for the other side, and also at trial, for the benefit of the fact finders.

You might naively believe that telling the truth is a concept that any qualified expert can comprehend without a special code of instruction. However, in the heat of the legal battle, the expert can begin to believe that winning is all that matters. Furthermore, this flawed premise may spawn the attitude that it is up to the people on the other side to do their own due diligence to determine whether the expert is testifying truthfully. Such beliefs set the stage for the kinds of disasters these two stories describe.

By understanding the context of patent infringement litigation, you can follow the path of the experts in these two patent cases and in the process learn a good deal about how both diligent discovery techniques and blind luck can combine to reveal the false testimony of a technical expert witness. In both stories, the experts were the key witnesses in their respective cases. In the first story, the questionable testimony concerned the circumstances surrounding a crucial test. The expert's opinion that led to the $100 million verdict against the defendant was based on this testing. In the second story, unknown to the court or the attorneys for the defendant, the plaintiff's expert was conducting a parallel expert witness engagement—and simultaneously rendering a conflicting expert opinion on similar issues that had arisen in another pending patent infringement case. The expert, however, testified in his deposition that this was not the case and repeated this testimony at trial.

On the Importance of Knowing Where You Are (and Aren't)

The legal system strives for finality in the resolution of disputes. This does not mean that individual lawsuits that set at stake millions of dollars, the continued existence of business enterprises, or the lives of criminal defendants do not take their sweet time in getting to that final stage of resolution. However, along the way, significant burdens are placed before a party who wishes to reopen something that has been resolved by trial. So it is with great reluctance that a court orders a new trial; usually this happens only in cases of the most significant error or prejudice to one of the parties. Such a situation occurred during the case of *Viskase Corporation v. American National Can Corporation*. The expert who testified falsely has died since the trial in that case and his name will not be mentioned in the telling of this sad tale. Instead the deceased will be referred to only as "the chemist" or "the expert."

In this case there was a battle of the experts as to the proper method of testing to determine whether the defendant's material was an infringing use of the patented material of the plaintiff. Therefore, the nature and accuracy of the testing became extremely important as the basis for the testimony of the plaintiff's expert. Since the defendant's position through their own expert was that the plaintiff's approach to testing was wrong, the credibility of the plaintiff's expert and the appropriateness and accuracy of the testing procedures used became crucial to the outcome of the case. This problem is more common than one might think. Remember our discussion in Chapter 5 of the problems encountered when distinguishing between chance, coincidence, and causation with relation to exhaustive testing.

In this case, the jurors apparently approved of the methods used by the plaintiff's expert and believed this witness more than the other expert who testified for the defendant. The jurors ultimately found that the defendant had infringed on the plaintiff's patents and awarded over $100 million to the plaintiff. After trial, lawyers for the defendant obtained evidence for the first time that documents they had requested during pretrial discovery had not been produced, and they asked the trial judge to allow them to investigate. In the course of the postverdict investigation of the allegations that the plaintiff's expert and counsel had not provided all the relevant documents concerning the testing, the trial judge, Elaine Bucklo, made the following findings.

> *[The judge] agreed to allow ANC [the defendant] to take the deposition of the person who reportedly claimed, contrary to trial testimony, to have actually performed certain tests. That deposition appeared to confirm ANC's suspicions, if what the deponent*[2] *had said was true. [The court] then suggested that if Viskase wanted to clarify the matter that it take depositions of personnel at the testing laboratory who*

2. The witness giving testimony in a deposition.

could confirm or deny the apparently conflicting testimony with regard to altered documents. Viskase agreed and took several depositions. ANC [then] filed a supplemental motion arguing that Viskase not only did not produce relevant documents before trial but that [their expert] testified falsely at trial regarding the tests upon which his opinion regarding infringement of the films was based.[3]

In order to determine whether a new trial would be required, the trial judge reconsidered in some detail the expert testimony at the trial concerning the testing that was done.

After stating his background, [the plaintiff's expert, a chemist] began his testimony by explaining to the jury the basic chemistry involved in as well as some history of polyethylenes and the relationship of long chain branching to linear polyethylenes. He also discussed an analysis of long chain branching in a linear polymer at the National Bureau of Standards. [The expert] then explained that there were two principal testing techniques for determining long chain branching. The first was magnetic resonance imaging (an MRI, with which the jury may well have been familiar), but [the expert] said this test would have limited ability to detect the level of long chain branching at issue in this litigation. The second method was gel permeation chromatography or GPC-DV testing. [The expert] explained the test and testified that it was very accurate.[4]

The court found that at this point in his testimony the witness was questioned further.

[The expert] was asked whether he supervised any GPC-DV tests on the Affinity PL 1840 resin. He stated that he did. . . . After stating that this test was better than the other test he had mentioned, he stated that his recommendation was that they use the best GPC-DV testing available in the United States. [The expert] was again asked if he supervised tests on Affinity PL 1840, and he again said yes. . . . In response to a question as to where he supervised these tests, [he] stated that he wanted an outside independent evaluation of any long chain branching that might be in Affinity, and that he chose Jordi Associates. He was again asked if he supervised these tests. After stating "yes" a third time, . . . Viskase attempted to move into evidence a document described as "the testing that you supervised at Jordi Associates." . . . ANC objected on hearsay grounds. Viskase counsel attempted to lay a foundation, asking the expert whether he was "there when the tests described in this Viskase Trial Exhibit No. 167 were performed?" . . . The expert responded as follows:

***A:** Yes. I believe this was the second visit. I drove some distance to go there, and I asked to be present while the injections were made. The column was eluted, the detector*

3. *Viskase Corporation v. American National Can Corporation.* U.S. Dist. Ct. N. D. Ill, ED, 979 F Supp. 697, 700, 1997, U.S. Dist.

4. *Id., 700.*

> *responded. But I also asked to leave, and I asked them to send me, without my previous notification, what their results were so that there would be no indication that I in any way would influence the results that were to be presented. . . .*

Following this testimony, Viskase again sought admission of the test results. [The court] sustained ANC's objection. [The expert] again testified that he observed the testing at Jordi Associates, . . . that he was there when the tests were done, that he was there when the samples were prepared, and when they were injected, and when they eluded from the GPC-DV. . . . Following another objection, [the expert] testified as follows:

> ***A:*** *Well, I'll just speak the truth, your Honor. This was faxed to me after I left, and I asked that that be done because I did not want to be looking over their shoulders at the time they did the computation, plain and simple, in the interest of objectivity and honesty. . . .*

[The expert] was then asked if he calculated long chain branching in Affinity PL-1840 based on the results he obtained from the Jordi testing. ANC objected that no such documentation had been provided them. [The expert] was again asked whether he observed the results of the Jordi testing while he was at Jordi. [The expert] responded that he saw the samples elude from the columns and saw the detector responses and base line return. He added, "I saw the stability of the base line. I saw the recorder of the two detector outputs and saw the information entered into their software computer program." . . . [The expert] was then asked what level of long chain branching he observed, to which he answered that he saw no detectable level. . . . He was essentially asked the same question, and gave the same response "based upon our observations at Jordi Associates" a minute later. . . . The expert compared the level of long chain branching that he "saw" with the level detected on the National Bureau of Standards sample, and testified that the Affinity resin was linear.[5]

Following this testimony, the court found that the expert

. . . testified about the various ANC products and the fact that they infringed Viskase's patents due to the absence of long chain branching in the resin. On cross-examination, [the expert] again was asked to describe what he saw. He responded that:

> *"With Dr. Wong, I asked him to make up the solution and do the injections and watch the recorder trace over time. . . . So we make up solutions carefully. I watched that process. That has to be truly in solution, and we have to be very careful we don't degrade the material because you have to dissolve it at high temperature, and you have to put antioxidant in the polyethylene to make sure you are getting the right answer. Then after a period of time, it can be minutes to an hour or so, then with a hypodermic syringe or other device, you withdraw a sample and inject it into the gel permeation chromatograph when the*

5. *Id., 700–701.*

base line is stable. I watch the base line stability, and that is very important for precise determination. So the base line was stable in the recorder charts, and I watched that. . . . "

At this point in the cross-examination, ANC referred to the report from Jordi Associates that [the court] had not allowed in evidence, asking [the expert] about the fact that the report had said "maybe" the Affinity resin had long branching. [The expert] was further referred to the part of the report that in fact stated that in order to correctly determine whether the samples were linear or branched, full statistical analysis would be required. [He] admitted that he did not do such an analysis.

At a conference before trial began on the following morning, responding to a suggestion made by [the judge] the day before that a solution to the hearsay problems of the Jordi testing exhibit could be to bring in someone from Jordi, Viskase reported that no one from Jordi would be able to testify. Counsel from Viskase (Mr. Frankel) stated, however, that "in terms of the actual tests, [the expert chemist] was present from start to finish." . . . After discussion, [the judge] again ruled that the Jordi report itself could not be put in evidence without a foundation from Jordi, but that [the expert] could state his opinion based on the testing if it had been established that the report was the kind reasonably relied upon by experts.

On redirect, Viskase counsel asked [the expert] "when the sample is injected and the trace comes out and the data go into the computer, is there any intervention possible by you or Jordi at that point?" . . . [The expert] answered, "No intervention is possible, and they have extensive experience in running branching determinations, so we use their standard protocol." . . . [He] then reiterated once more that he was present during the testing, adding:

"There are certain things that one can actually see by eye. As I mentioned earlier, it's hypersensitive to temperature and other variations. So I could watch the recorded baseline to see if it was stable by my previous experience of having run hundreds of GPC in companies and at university. So I was aware of the sensitivity, I was aware of the standards they had run, and the perspective in which these determinations were made. . . . "

On redirect examination, [the expert] was also asked about the fact that the Jordi report had indicated that the Affinity resins might be branched. [He] explained that he wanted to know what Jordi thought about the alpha values coming out of the computer, and that he had come to a different conclusion. Both on redirect and recross, [he] was asked about the correlation between alpha values and long chain branching.

The post-trial depositions of Jordi employees and principals established that much of what [the judge] quoted from [the expert's] testimony is false. . . . All of the Jordi people agreed that [the expert] was not present for any of the testing to which he testified at trial. Neither was the testing done by Dr. Wang (described above by the expert as "Dr. Wong") who would ordinarily have been the person at Jordi to do the tests. During the summer in which the expert wanted the tests done, Dr. Wang was away. No one else at Jordi was capable of doing these tests so Jordi brought in an out-

> *sider, Trevor Harvard. Mr. Harvard performed the tests at Jordi and then took the computer home and made the report. "His report was sent to [the expert]. [The expert] believed Mr. Harvard had set an erroneous base line and asked that it be changed. Mr. Harvard would not make any change but everyone at Jordi agreed that Mr. Harvard had made an error. When Dr. Wang returned he was able to correct the error, and the tests were recalculated. With input from the expert as to the style in which he wanted the final report (some reports of samples of other resins were removed), a final report was prepared and sent to [the expert]. The alpha values in the final report for Affinity were not changed with respect to one of the two samples. The alpha value of the second sample changed by virtue of the recalculation from .627 to .638."*[6] . . .
>
> *Viskase concede[d] that [the expert] was not present at the tests he stated he supervised although it argued that he 'may' have been at a subsequent test. Even this statement is based on testimony by one Jordi employee who thought [the expert] might have been looking over his shoulder at sometime when he was looking at his computer. Assuming the employee's vague recollection was correct, no one argues that what the expert was observing was the test he testified about in court. (*Viskase Corporation v. American National Can Corporation, *footnote 2.)*

Furthermore, the court found that from all of the evidence as well as his own observations of the expert at trial, it was clear that he could not have simply been mistaken in his memory.

The Court found that

> *ANC had a right to the discovery it sought. Clearly, the Jordi Associates' documents, and those sent to [the expert] by Jordi (which included the draft report) were within the control of Viskase. Indeed, in ANC's discovery requests, Viskase specifically was defined to include any 'consultants.' In these circumstances, courts have held that a party has the right to assume that discovery responses are accurate and complete. . . . Furthermore, some of the missing documents compared the two resins used by the parties. With regard to those tests, commissioned by [the expert] in May 1995, [he] testified at his deposition that he had never done such a comparison. [The judge] conclude[d] that Viskase should not be able to benefit from ANC's failure to vigorously pursue discovery under these circumstances.*[7]

The court also carefully analyzed the next two requirements for the relief that the defendants were seeking pursuant to Rule 60; namely, that the new evidence was not merely cumulative or impeaching, and that it was material.

The court determined that the two types of evidence at issue . . . the missing documents and the false trial testimony could be considered together, and that the docu-

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6. *Viskase Corporation v. American National Can Corporation.*

7. *Viskase Corporation v. American National Can Corporation*, 703.

Rule 60 of the Federal Rules of Civil Procedure states in part that "On motion and upon such terms as are just, the court may relieve a party or a party's legal representative from a final judgment, order, or proceeding for the following reasons:

1. mistake, inadvertence, surprise, or excusable neglect;
2. newly discovered evidence which by due diligence could not have been discovered in time to move for a new trial . . . ;
3. fraud . . . , misrepresentation, or other misconduct of an adverse party; . . .
6. any other reason justifying relief from the operation of the judgment."

ments themselves would have been useful principally for impeachment purposes. "Thus the principal question is whether [the expert's] false trial testimony with respect to his participation in the Jordi tests was material."[8] The judge described how the problem of the expert's false claim that he was present during the testing might have been avoided without the loss of essential evidence in the following portion of the opinion.

> *ANC argues that the fact that [the expert chemist] was not actually present at the tests relied on by him at trial was material because he would not otherwise have been allowed to testify about the results of the tests. Viskase counters that Fed. R. Evid. 703 allows an expert to testify to his opinion even if the underlying data are not admissible. Rule 703 does allow an expert's opinion, even though based on inadmissible data, so long as the facts relied on by the expert are of the type "reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject. . . ." The initial problem in this case was that Viskase attempted to introduce [the expert's] opinion through the introduction of the Jordi report, which Viskase attempted to authenticate by testimony that [the expert] had actually supervised tests. For much of [the expert's] testimony, Viskase attempted to introduce the actual results based entirely on reliance of the supposed fact that [he] had personally supervised the tests. In fact, Viskase might have avoided the issue by asking for [the expert's] opinion, ascertaining that it was based on tests that he commissioned, and that those tests were the type of tests reasonably relied upon by experts in his field. . . . "[M]ight," because [the expert] testified that the testing was "hypersensitive" and he generally testified that the persons doing the testing required considerable training.*[9]

8. Id., 703.

9. Id., 704.

The court found that based on the record, "it would appear that experts in [the chemist's field] would not rely on GPC testing without knowledge of who had done the testing."[10] The court further reasoned that the expert might have testified:

> *. . . that he was satisfied that Jordi Associates did have the requisite training and that, based on his knowledge of the kind of work they did, experts in his field would rely on their tests. This would have been a sufficient basis upon which [the chemist] could have rendered his opinion. At that point, with leave of court, [the chemist] might have been able to testify to the information contained in the Jordi report, even though it was otherwise inadmissible hearsay. . . . But Viskase did not directly pursue this route. Instead, it sought to demonstrate the reliability of the Jordi testing through testimony of [the expert's] direct involvement in that test. Because that was the foundation upon which it sought admission of the basis for [the expert's] opinion, his testimony is material. . . . It is material in a second respect also. [The court] described [the expert's] testimony in some detail above not only to illustrate the number of times he testified falsely during the course of his testimony but also to attempt to provide some sense of that testimony. [His] repeated statements of his personal involvement may well have influenced the jury in deciding whether to credit his testimony, and theory, over ANC's theory of significant long chain branching. Contrary to Viskase's argument in the present motion, Viskase offered almost no other testimony that would support its claim that Affinity is a linear polyethylene. The expert's testimony was the central part of Viskase's infringement case with respect to the Affinity films.*[11]

In another footnote to the opinion, the court found that based on the record,

> *. . . Viskase did not directly ask [the expert] until redirect, over ANC's objection, whether the tests were the type reasonably relied upon by experts in the field. . . . Prior to dealing with the specific Jordi test, Viskase did on direct elicit testimony that this was one of two tests used and that this type of test was the more reliable. Thus, it probably introduced sufficient evidence upon which to base an opinion. But when he turned to the specific test at Jordi Associates, [the expert's] entire testimony was based on his alleged personal participation.*[12]
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> *The last requirement under Rule 60(b)(2) is that the evidence would probably have produced a new result. . . . This requirement, as noted earlier, does not exist under Rule 60(b)(3). [The court could not say] whether if [the expert] had testified truthfully the outcome would have been different. It makes no difference. It might have been different and since [the court] concluded his testimony was materially false, ANC has satisfied its burden under Rule 60(b)(3), Fed. R. Civ. P.*

10. Id., 704.

11. Id., 704.

12. *Viskase Corporation v. American National Can Corporation, footnote 6*, at 704.

> *Viskase nevertheless argues that even if the expert testified falsely, under* Metlyn Realty Corp. v. Esmark, Inc.*, 763 F.2d 826 (7th Cir. 1985), it cannot be held responsible for the testimony of an outside expert. The court in* Metlyn *upheld the district court's decision not to reopen a judgment entered on a settlement more than a year after the judgment became final, where it was found that an expert had testified falsely about some matters, including his credentials. But as ANC argues, in that case the district judge had approved a settlement, and after holding a hearing on the newly discovered evidence concluded that he would have nevertheless approved the settlement. That is far different from considering the impact of false testimony from the party's main witness on a jury.*[13]

Furthermore, the court found that:

> *Viskase agrees that it would be bound by an expert's false testimony if it or its attorneys knew the testimony was false. While it is not possible to know in this case whether Viskase's counsel knew that the expert was not present at the tests that led to the Jordi report, they surely knew there must have been additional documents and that there were additional tests conducted. Both the invoices directed to Viskase counsel and the expert's notes document counsel's knowledge of these facts. Based on this evidence the court concluded that Viskase cannot escape responsibility for their expert's false testimony.*[14]

Finally, the court found that Rule 60(b)(6) allows relief from judgment for "any other reason justifying relief." The court also noted that the verdict that was the subject of the motion pursuant to Rule 60 was in excess of $100 million, and although a final judgment is desirable for parties and courts alike, a $100 million judgment should not be based on the facts found by the court in this case.

Thus, ANC's motion for a new trial on infringement as it related to Affinity-based films, willful infringement with respect to those films, and damages on all of Viskase's claims was granted by Judge Bucklo on September 29, 1997. She also ruled that the expert chemist would not be allowed to testify at any new trial.[15]

In July 2001, the Federal Circuit Court affirmed Judge Bucklo's order for a new trial due to the false testimony of the expert witness, holding in part:

> *A Viskase expert witness (now deceased) testified that he had been present and personally observed the tests that were performed by an independent laboratory con-*

13. Id., 704–5.

14. Id., 705.

15. Other related litigation citations, including the opinion quoted here, include: *Viskase Corporation v. American National Can Corporation.* 947 F. Supp. 1200 (N.D. Ill. 1996) (claim interpretation and infringement); 979 F. Supp. 697, 45 USPQ2d 1675 (N.D. Ill. 1997) (new trial); 18 F. Supp. 2d 873 (N.D. Ill. 1998) (infringement); No. 93 C7651 (N.D. Ill. July 1, 1999) (final judgment).

cerning the linear or branched structure of the Affinity very low density ethylene copolymers. In post-trial discovery (an unusual event, flowing from new information) it was learned that he was not present during any of the tests. The district court commented that the witness had lied "at least 15 times" about his role in this testing. Based on this perjury, the district court vacated the judgment of literal infringement and granted a new trial.

It is not disputed that Viskase was not aware of the perjury. ANC states that the perjured testimony was critical to the verdict, while Viskase argues that the test data themselves were not challenged, only whether this witness personally watched the tests. Although Viskase suggests that the jury verdict could now be reinstated, we agree with the district court that the jury verdict was irretrievably tainted and was properly set aside.[16]

So it would appear from this opinion that for want of a truthful expert, a $100 million judgment was set aside. The foregoing lengthy recounting of the court's spiral of factual and legal reasoning may require more than one coffee break to follow the twists and turns of how it was discovered and why it is so crucial to the judge's decision to grant a new trial. To the extent you can work your way through this example, you will gain a great deal of insight into the way expert testimony is connected with the process of discovery of the expert's work and opinions and how those pretrial proceedings relate to the actual trial and then to any posttrial review of errors in the process that are brought to the attention of the trial judge.

Lightning Strikes Again: The Case of the Ethically Conflicted Expert

As the manuscript for this book was nearing completion, we learned of a recent opinion reversing another jury verdict of over $100 million in a second case. This case illustrates the pitfalls of an expert who was unable to decide what his duty was when it came to testifying truthfully in one case about what he may or may not have been doing in another expert witness assignment. This story comes from another patent infringement case, *Cardiac Pacemakers, Inc. et. al. v. St. Jude Medical, Inc. et. al.* that was tried in June 2001. The case involved allegations of infringement of a patent that was applicable to a medical device. The case resulted in a verdict awarding the plaintiffs $140 million in royalties. After consideration of numerous postverdict motions from both sides of the litigation, the trial judge determined that there must be a new trial and set aside the verdict for the plaintiffs.

In considering the defendants' motions for sanctions against the plaintiff for the deception of the chief expert witness for the plaintiffs, the court found that the expert

16. *Viskase Corporation v. American National Can Corporation.* 261 F.3d 1316; 2001, U.S. App. LEXIS 17039.

admitted deliberately lying at trial and during his deposition so as to conceal matters that went to the heart of both his credibility and the merits of the case. The court found that the expert's deception seriously undermined the integrity of the proceedings leading up to, during, and after the trial. While the court took some actions during the trial in an attempt to remedy the problem of deception by the expert when it appeared, the court ultimately determined that those actions were insufficient to ensure a fair trial for the defendants. The court also determined, based on the evidence summarized below, that the measures taken to remedy the deceptive testimony at trial were based on the premise that the expert might have been honestly mistaken. After the trial the expert admitted that he deliberately deceived the defendants during discovery and the jurors and judge during the trial.

The court fashioned the following remedy in its reconsideration of the problems presented by the deception of the expert witness:

> *Accordingly, in the event that this court's final judgment in favor of defendants were to be set aside on appeal, St. Jude would be entitled to a further remedy for Dr. Bourland's deception. St. Jude would be entitled to a new trial on all issues as to which it did not prevail, as well as a financial sanction to compensate St. Jude for the additional expenses of a new trial, including attorney fees, it incurs as a result of Dr. Bourland's deception and CPI's failure to disclose it. St. Jude is also entitled now to a financial sanction to compensate it for the expenses and attorney fees it has already incurred in uncovering and seeking relief from that deception.*[17]

In what follows, the opinion of the court is summarized to help you understand what caused the trial judge to throw out a $140 million verdict and grant a conditional new trial due to the unethical conduct of a witness at trial.

> *Dr. Bourland was the single most important witness for plaintiffs. Dr. Bourland is a biomedical engineer, with a doctorate in physiology and a bachelor's degree in electrical engineering. He has been a faculty member at Purdue University since 1974. Dr. Bourland has been involved in researching and developing cardiac rhythm management devices since he was an undergraduate in the mid-1960s.*
>
> *Dr. Bourland testified as CPI's principal infringement witness. He testified as to both the '472 and '288 patents. He studied both patents, their claims, and the court's construction of disputed terms in those claims. He also examined defendant's devices and their accompanying technical manuals. Dr. Bourland opined that all of the accused defendant's devices infringed both patents. He opined on the issue of equivalents and about the written description issue under the '472 patent. Without Dr.*

17. *Cardiac Pacemakers, Inc. et al. v. St. Jude Medical, Inc. et al.* S.D. Ind., No. IP 96-1718-CH/K, February 13, 2002, p. 124. This Entry on Postverdict Motions can be reviewed at 2002 WL 392499 (S.D. Ind.) and on the Web at: *www.insd.uscourts.gov/opinions/ip961718.pdf* (visited April 1, 2002).

Bourland's testimony, St. Jude would have been entitled to judgment as a matter of law finding that neither patent had been infringed.

In pretrial reports and in the briefing on motions for summary judgment, Dr. Bourland also considered and addressed issues of validity, including obviousness and the written description requirement as applied to the '472 patent. At trial, however, CPI chose not to ask him about obviousness issues.

While Dr. Bourland was working for CPI on this case, he was also working as an expert witness for the third principal ICD manufacturer, Medtronic in another case called Moore v. Medtronic. *Dr. Moore sued Medtronic for royalty payments allegedly due under a license agreement concerning other ICD patents. In his work for Medtronic, Dr. Bourland prepared a report addressing issues of patent infringement and validity on issues closely related to those presented here. . . .*

When Dr. Bourland's report in the Moore *case came to light, it became apparent that his approaches to and opinions about some of the same patents . . . and nearly identical issues in this case and in the* Moore *case were very different. . . .*

The specific issue that caused the trouble was Dr. Bourland's testimony about the extent of other work he had done as an expert witness. The undisputed evidence, including Dr. Bourland's own testimony in a post-trial deposition, establishes that Dr. Bourland deliberately lied during his pretrial deposition and during his trial testimony in this case, and in a post-trial affidavit. Plaintiffs themselves concede: "Plaintiffs do not seek to excuse or minimize Dr. Bourlands' actions." . . . Dr. Bourland's sworn testimony before, during, and after trial was deliberately false.[18]

Dr. Bourland, in his pretrial deposition, "volunteered" that he had been "involved in some litigation within the last five years that involves some of the manufacturer's devices. . . ." He was asked what litigation it was. He answered: "There were actually two suits that were involved and both of those have now been resolved." The testimony continued:

Q: *And who was the litigation involving Medtronic against?*
A: *There was one that was in the case of* Charms versus Medtronic. *And there was a second one in the case* Moore versus Medtronic. *But I was not an expert—did not go to the point of having depositions taken in that.*
Q: *Did you provide any expert reports?*
A: *Don't believe we got that far. . . .*

The last answer was false. When he gave this deposition testimony in this case, Dr. Bourland had completed two expert reports in the Moore *case that had already been provided to opposing counsel in that case.*

After the trial in this case, Dr. Bourland explained that when he gave his pretrial deposition, he had not merely "forgotten" about those reports:

Q: *Was your answer false?*

18. Id., 116–117.

A: *It was false, and the reason was, I felt it would have been a violation of confidence to reveal what was going on in the case A to the attorneys in case B.*

Q: *Okay. Meaning that, your answer was not mistaken, it was deliberate based on your understanding of the confidentiality order?*

A: *I was very reluctant to share the proceedings in one case with another. And the answer is yes, I did not feel I should answer that question and reveal what was going on in the other case. . . .*

Q: *Do you believe that your confidentiality obligation requires you to lie under oath?*

A: *I do not.*

Q: *But that's what you did, isn't it?*

A: *I was faced with a moral dilemma, and that is, I violate one obligation or I violate the other. And I chose to not reveal what was going on in a case that was in potential competition to the one underway. . . .*

The "moral dilemma," however, had obviously not prevented Dr. Bourland from at least telling CPI's and St. Jude's lawyers about the existence of the cases. Why the mere existence of the reports should be so sensitive is something Dr. Bourland has not explained.

After studying Dr. Bourland's principal report in the Moore case, the court sees no legitimate basis for a court to treat it as confidential at all. See generally Union Oil Co. of California v. Leavell*, 220 F.3d 562, 567-68 (7th Cir. 2000) (discussing circumstances in which court may properly seal records). Dr. Bourland discussed a number of patents and prior art—all of which were public documents—and reported on the results of his examination of Medtronic devices that were available on the market for sale, scrutiny, and even reverse engineering.*

The evidence thus demonstrates that Dr. Bourland made a deliberate decision during his pretrial deposition in this case to lie rather than disclose the truth about his work in Moore v. Medtronic*. CPI points out that Dr. Bourland and CPI were not required by Fed. R. Civ. P. 26(a)(2) to disclose the fact of his work in the Moore case, let alone the report itself. For hired experts, the rule requires a listing of cases in which the witness has given trial or deposition testimony. It does not mandate such a listing of all cases in which the expert has consulted or provided a report. At the risk of emphasizing the obvious, however, those limits on Rule 26(a)(2) cannot possibly excuse a deliberate decision to give a false answer to a direct question in a deposition.*

Dr. Bourland testified in the pretrial deposition that he believed the Moore *case had been resolved. He later testified that his belief was based on a telephone call he had received from Medtronic's attorneys in the case. Before trial in this case, however, Dr. Bourland learned that the Moore case had not been resolved. In May and early June 2001, he was preparing for his deposition in the* Moore *case, in addition to preparing for trial in this case. Dr. Bourland did not correct this mistake, either when he had an opportunity to review his deposition testimony or later.*[19]

19. Id., 117–119, footnote 37.

The opinion continues to discuss Dr. Bourland's deception during trial.

During the afternoon of June 14, 2001, the expert witness was being introduced to the jury. He gave the following testimony:

Q: *Now, Dr. Bourland, you're here to testify as an expert witness in this lawsuit now, correct?*
A: *That is correct.*
Q: *Have you ever been an expert witness before?*
A: *One time many, many years ago, but it was not a patent infringement suit.*
Q: *So you don't do this for a living?*
A: *No, sir. I certainly do not. . . .*

The obvious intent and effect of this testimony was to present the expert witness as an intellectually honest academic rather than a professional expert witness. The expert then began explaining why, in his view, defendant's devices infringed two of the patents at issue in this case. His direct examination was not complete when the court recessed for the evening.

Listening in the courtroom audience that afternoon was an attorney for Dr. Moore in Moore v. Medtronic. *After the court recessed, Dr. Moore's lawyer spoke with counsel for the plaintiffs in this case and provided a copy of an expert witness report that the expert had written in the* Moore *case.*

The next morning, before Dr. Bourland had completed his direct examination, counsel for St. Jude provided a copy of the Moore *report to CPI's counsel and stated their intent to use the report in their cross-examination. As a result, neither Dr. Bourland nor CPI's counsel were surprised when the report was used in cross-examination. During cross-examination, Dr. Bourland was asked:*

Q: *Did you overlook a more recent case in which you were retained as an expert witness?*
A: *Actually, no. When he asked the question, I thought he asked me had I been in court as an expert witness, and so I must have misunderstood the question. I apologize if I misled you.*
Q: *I thought that's what had happened. . . .*

That explanation appeared to be plausible at the time, for CPI's question on direct about whether he had been "an expert witness" had not been precise. CPI's counsel had already suggested the "forgetfulness" explanation during discussion of the proposed exhibit before Dr. Bourland took the stand the morning of June 15th.

After trial, however, Dr. Bourland confessed that this benign explanation was false:

A: *Prior to trial, I very much limited my conversation to [CPI's attorneys] about the other lawsuit, because I thought that would be a violation of the confidentiality agreement that I had in—involving those suits.*
Q: *Was that the reason you did not mention the* Moore *or the* Charms *case in your direct testimony at trial?*
A: *That is correct.*

Q: *So you didn't forget that you were involved in the* Moore *and the* Charms *case on the 14th of June, did you?*

A: *I felt like I would be violating a confidence if I discussed one area of litigation in the context of the other. I thought that would be a violation of an agreement that I had made with the other court.*

Q: *I understand. My point is, that you didn't forget about the* Moore *case or the* Charms *case, you chose not to reveal them because of what you thought was your obligation under the confidentiality order, correct?*

A: *That is correct. . . .*

In addition, Dr. Bourland also later admitted that in the one case he did mention during his direct trial testimony, he had never testified in court. . . . Thus, Dr. Bourland's explanation on cross-examination, which CPI has continued to advocate long after Dr. Bourland himself had abandoned it—that he had "misunderstood" the question from plaintiff's lawyer—was thoroughly false. . . .

It is now as plain as could be that Dr. Bourland did not merely forget the second case or the report when he testified on direct. He made a deliberate decision not to answer truthfully. Then, when confronted on cross-examination, he deliberately offered a false excuse for the supposed "misunderstanding" on direct.

Moreover, Dr. Bourland's professed concern about his obligations under other protective orders is of dubious credibility. He never bothered to check his views on this "moral dilemma" by, for example, actually checking the protective orders or consulting a lawyer. . . . If his professed concern were deemed credible, it might be of interest to other authorities who have responsibility for dealing with perjury, such as federal prosecutors. But whether Dr. Bourland's asserted but ill-considered excuse is honest or not has no bearing on this case or the prejudice his action caused to St. Jude or to the integrity of this proceeding.[20]

The court went on to find that even if a $140 million verdict was returned, the problems with the expert's ethical dilemma continued.

When the jury returned its verdict, the major damage was done but Dr. Bourland's deception continued. St. Jude sought and was granted permission to conduct post-trial discovery with Dr. Bourland regarding his actions and testimony. In response to a request to take Dr. Bourland's deposition, CPI's counsel helped Dr. Bourland prepare an affidavit that he signed on July 11, 2001. . . . That affidavit was not a successful effort to be honest. . . .

Dr. Bourland explained his failure to disclose the Moore *reports during his deposition on the ground that he thought the question had applied to the* Charms *case and not to the* Moore *case. That is not how the transcript reads, though it is not unusual for witnesses to misunderstand questions. When questioned in the July 18th deposition, Dr. Bourland repeated that explanation at first. When asked again, however, he abandoned the "misunderstanding" explanation:*

20. Id., 122–123.

Q: *And in the Moore case, you prepared, as of March 24th, two reports?*
A: *Yes, I have.*
Q: *Was your answer false?*
A: *It was false, and the reason was, I felt it would have been a violation of confidence to reveal what was going on in the case A to attorneys in case B. . . .*

Thus, when pressed even mildly, Dr. Bourland did not claim to have misunderstood the question as limited to the Charms *case. The explanation that he and CPI's lawyers provided in the post-trial affidavit collapsed just a week after they offered it under oath.*

Perhaps most striking in the affidavit is its concluding assertion: "At no time did I ever intend to conceal the fact that I had prepared expert reports in the Moore *case and had served as an expert in that matter during the pendency of this case." . . . Dr. Bourland admitted during his deposition taken just one week later, on July 18th, that he had in fact intended to conceal both the report and his work in the* Moore *case.*[21]

Of particular interest to beginning experts is the court's admonishment in this case that:

[I]n the event of a genuine conflict between a protective order and a witness's obligation to testify in another case, of course, the conflict may be raised with the courts in question and a resolution will be found. The expert's self-help method for resolving his professed "moral dilemma" has nothing to recommend it.[22]

The court found that the false testimony of the expert had two results, neither of them positive for the integrity of the proceeding. "The overall effect was to deny the defendants a fair trial and to undermine the integrity of this proceeding."[23]

One of the problems that is always present for an advocate who is presenting an expert hired by the party to testify is avoiding the brand of the hired gun. Here the court observes:

First and most basic, Dr. Bourland's false direct testimony enabled CPI to present Dr. Bourland to the jury as more of an honest academic researcher than as a "hired gun" expert witness. That deceptive presentation helped enhance Dr. Bourland's credibility before the jury. After trial, however, Dr. Bourland also testified that, despite his testimony that he does not testify as an expert for a living, income from such work was "a substantial amount" of his earned income for the year 2000.[24]

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21. Id., 125–126.

22. Id., 123, footnote 37.

23. Id., 126.

24. Id., 126.

The court continued to observe that a second effect of the false testimony was even more important. This cuts to the heart of the role of technical experts in technically complex cases.

> *CPI's infringement theories in this case required some long (too long) intellectual stretches. It was up to Dr. Bourland to do the stretching and to convince the jury to follow him. The same can be said of CPI's approach to the written description issue under the '472 patent.*
>
> *Regarding the "determining means" element in the '288 patent claims, CPI and Dr. Bourland had to argue that the relatively sophisticated "binning" algorithm in St. Jude's ICDs was equivalent to the "determining means" described in the '288 patent, which in this case combined the use of a cardiac rate detector with the so-called "probability density function" (PDF) detector. The two types of devices performed the same general function—any ICD must have some mechanism for detecting the heart's rhythm and determining when therapy is needed. It was up to Dr. Bourland to convince the jury that these different means for accomplishing that function were equivalent to one another. On that issue, Dr. Bourland apparently was not successful. The jury found that particular '288 patent was not infringed.*
>
> *Dr. Bourland was more successful with the '472 patent. His testimony laid the essential foundation for the jury's verdict awarding CPI $140 million. He provided the testimony, for example, that the more sophisticated "H-bridge" switches in St. Jude's products were equivalent to the simpler "switch means" disclosed in the '472 patent. . . . He also provided essential testimony to support CPI's theory that the software or "firmware" programmed into St. Jude's devices was equivalent to the "initiating means" disclosed in the '472 patent. . . . Dr. Bourland's testimony was essential to allow CPI to avoid judgment as a matter of law on infringement of the '472 patent.*
>
> *Dr. Bourland's report in the* Moore *case offered an extensive basis for impeaching his testimony in this case. It also offered an extensive basis for attacking CPI's defense of the validity of the '472 and '288 patents.*
>
> *Dr. Bourland testified in this case that St. Jude's determining means were equivalent to the rate-plus-PDF determining means in the patent even though the rate-plus-PDF system was less reliable, resulting in more unnecessary shocks for the patient. He testified that rate-plus-PDF was interchangeable with rate-only. . . . He also testified on cross-examination that the use of rate-plus-PDF resulted in unnecessary shocks to patients. . . . He added that the change away from use of PDF "dramatically reduced" the incidence of unnecessary shocks. A moment later, though, apparently after realizing the effect of that concession, he back-pedaled and claimed there was no "dramatic difference." . . .*
>
> *Dr. Bourland eventually agreed "that the use of rate alone, as St. Jude uses rate, gives many fewer shocks than the use of PDF alone, or the use of PDF with rate." . . . Nevertheless, he still did his best to minimize the different results. . . . He even went to the impossible length of asserting that, as long as the two types of devices*

both identify arrhythmias, the reliability of their results has nothing to do with the patent issues. . . .

> *"In other words, Dr. Bourland struggled on the witness stand to portray St. Jude's rate-only algorithm as an equivalent of the '288 patent's less reliable determining means with rate-plus-PDF. The jurors did not buy this testimony. But in light of their finding of infringement of the '472 patent, they obviously did not reject Dr. Bourland as an outright liar willing to say almost anything to help CPI win."*[25]

With full use of the Moore *report, Dr. Bourland's efforts would have appeared very different. . . . [I]n the* Moore *case, Dr. Bourland took a far narrower approach to a very similar equivalence problem involving the means used in ICDs to identify an arrhythmia and the appropriate electrical therapy. In contrast to his testimony in this case, he opined in Moore that the reliability of the determining means' results was critical to equivalence. . . .*[26]

More generally, on the issue of equivalence, Dr. Bourland's testimony in this case repeatedly took the simplistic approach that, as long as a St. Jude's device contained structure that performed the same function as the claimed means in the '472 or '288 patents, the St. Jude device contained equivalent structure. In the Moore *report, Dr. Bourland was far more discriminating. He recognized in that report that merely performing the same function was not sufficient, and he went on to analyze the "way" and "result" elements of the most familiar "function-way-result" approach to analyzing equivalence issues. . . .*

The court said at trial that timely disclosure of the Moore *report would have been very helpful to St. Jude and probably would have enabled "very effective" cross-examination of Dr. Bourland on the equivalence issue. . . . The court stands by that view. In an attempt to minimize the effects of Dr. Bourland's deception, CPI points out that St. Jude did in fact obtain a copy of Dr. Bourland's expert report in the* Moore *case at the end of his first day of testimony, and then did relatively little with it in cross-examining him. This point is factually correct but misses the actual effects. First, St. Jude was expecting Dr. Bourland to testify on issues of validity as well as issues of infringement. At the end of the first day of Dr. Bourland's testimony, the St. Jude lawyer who would cross-examine him learned for the first time that Dr. Bourland would not be addressing validity issues. . . . That attorney had to spend that night restructuring and reorganizing his planned cross-examination of Dr. Bourland. It simply is not realistic in a case of this complexity to expect attorney Rackman both to have done that essential work and to have digested a 35-page expert report and planned a cross-examination using the report. That is why Rule 26 of the Federal Rules of Civil Procedure requires so much advance disclosure of expert materials. Those reasons apply with great force in a high-stakes patent case. . . .*

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25. Id., 128–129.

26. Id., 129–130.

> *Second, the issues are complex. As talented as all the lawyers in this case are, digesting the* Moore *report and preparing to use it effectively before a jury would have taken much more time than Rackman had, especially with a witness as smart as Dr. Bourland, and especially without an opportunity to take his deposition to ask detailed questions about the report. CPI's lawyers themselves made this point about the complexity of the issues in explaining their failure to raise during trial any of the objections they first made after trial to St. Jude's demonstrative exhibits addressing Dr. Bourland's contradictions. . . .*[27]

The court went beyond the determination that the expert had deceived the jury, deceived the court, and deceived the defendants and that he did so deliberately on matters that went to the heart of his credibility and to the heart of the case. The court analyzed in considerable detail what if any role or responsibility CPI and its lawyers had for these deceptions by Dr. Bourland. There is much in the court's analysis of the interaction between CPI, its lawyers, and Dr. Bourland, but for our purposes the focus remains on the actions of Dr. Bourland himself in his reports, depositions, affidavits, and testimony and the serious consequences that at least one judge attached to the conduct described in the opinion in this case.

This case illustrates many key elements of expert witness ethical responsibilities. The dependence of the fact finders on the expert witness to guide them through the nuances of determining patent infringement is clear in this case. This dependence defines the landscape in which a breach of ethics on the part of the expert witness can have major negative impacts on the outcome of a case. The court's decision in this case articulates these issues and the ways in which courts are inclined to punish experts and the parties who engage them for failures to comply with the rules and ethical tenets of expert witnesses. Finally, the case serves to illustrate that the expert cannot offload the responsibility for objectivity and ethics on the assumption that the advocacy ritual will be able to sort everything out.

Determining Master–Servant Relationships in Litigation

Many legal ethics rules are intended to honor a master-servant relationship between the client and the attorney. This relationship defines the central motivation for an attorney's actions in the course of litigation, and as the expert is often considered a part of the attorney's team, he or she must not interfere with this interaction. Furthermore, an expert witness must first recognize which master he or she will be serving from the very beginning while considering an assignment from an attorney or an appointment by the court in a criminal or civil case.

27. Id., 129–133.

Criminal Prosecution

In a criminal case, the expert will ordinarily be contacted by the prosecutor, a defense attorney, or, on rare occasions, the trial judge. In state and federal criminal cases, the prosecutor has almost unbridled discretion to begin and end a criminal prosecution and to decide which witnesses and which evidence will be presented at trial. Although many states give increasing attention to the rights of victims and their families, by and large the prosecutor calls all the shots, and there is no other client besides the abstraction of "the government" or "the people." This tradition of prosecutorial discretion in the management of criminal cases is quite different from the traditions and ethical rules that govern the handling of civil cases.

When a government prosecutor seeks to hire a private expert, there will almost always be an issue of how the expert will be paid and whether it is appropriate to charge more or less than the usual fee for expert witness services. The immediate need is to come to some agreement that the fee or lack thereof is clearly established and deemed acceptable to all parties. Both the prosecutor and the witness need to be candid about projected time and costs and decide whether there are adequate funds available to pay the reasonably anticipated costs. In many state and local jurisdictions, the prosecution is expected to rely on salaried state or federal experts and has little, if any, budget for private expert witnesses.

Civil Litigation

In civil litigation, the client hires an attorney or trial team and is ultimately responsible for paying for the services of an expert witness, unless the agreement entered into by the expert makes the attorney ultimately responsible. Regardless of the terms of the expert's contract, in civil cases it is the client and the client alone who has the right to call all the key shots while bringing a cause of action and during the course of litigation. In many cases, the client will also be involved in setting the goals of the litigation and on occasion will even become personally involved in the selection of experts and in strategy meetings with the expert after he or she is chosen and hired. Clients often attend depositions and hearings as well.

Beyond the selection and payment of the expert, the client is ordinarily involved in establishing the objectives of the litigation, at least to some extent. This client involvement may be evident to the expert before the lawyer hires the expert, and it may continue throughout the litigation. Regardless of the client's actual presence or absence during civil discovery and trial preparation, a retained expert must understand that it is the ethical responsibility of the lawyer to carry out the objectives of the client. Furthermore, these strict ethical restraints placed on the relationship between attorney and client in the civil arena make it very important for the expert to deter-

mine just what the rules of engagement are likely to be. The expert should establish this before accepting an assignment from a particular lawyer and client. The expert also needs to clearly understand how the demands of different stages of litigation will require the lawyer to change tactics in order to honor this ethically mandated allegiance to the client.

> *It is the client who chooses. The lawyer's task is to protect the client's autonomy from the threat posed by the complexity and alien nature of the legal system. If the choice is to litigate, to go to trial, the lawyer becomes less the philosopher and more the fighter, or at least the very single-mindedly loyal diplomat. He or she puts partisanship, fellowship, competitiveness, and ambition at the service of presenting the most morally and factually compelling version of a client's story. Or perhaps I should say "position," because the narrative will be the result of a set of conversations in which the story that the client claims to be true is confronted by the lawyer's judgment about what is factually plausible and morally compelling. The result of this effort is the presentation of a case as imagined and researched with the care that only the most delicate conscience and rigorous intelligence could muster. It is even guided by a kind of fair-mindedness, the imagined perspective of an impartial juror. By providing this energetic form of partisanship, the legal system says something like the following: There is really a great deal to say on behalf of any person, and of most causes. We sometimes don't imagine so because of the main enemy of human compassion, sloth. We cannot count on compassion's overcoming sloth, but desire for victory, for status, for public display, and for wealth can defeat even that formidable adversary.*[28]

Balancing the Demands of Expertise

In today's society, in order to successfully assume these multiple roles of advisor and advocate, counselor and crusader, the attorney often needs the assistance of recognized experts from other fields. In particular, given the fact that so much evidence resides on computer systems, the attorney will likely need the advice of technical experts regarding the optimal techniques for obtaining evidence from computer networks, assuming that it can be obtained—and obtained at a reasonable cost. The attorney may also require technical assistance in determining the significance of such evidence.

As we will see with other ethical, procedural, and evidentiary rules, the rules governing the conduct of attorneys and experts are not isolated from each other. In fact, from time to time, the expert will have to deal with the fact that these rules are often at odds with each other. Furthermore, these rules will interact in competing and occa-

28. Burns, Robert P. *A Theory of Trial.* Princeton, NJ: Princeton University Press, 1999, pp. 79–80.

sionally antagonistic or even contradictory ways. Without an understanding of the full complexity of the adversary system of justice, these conflicts will often make little sense to the neophyte expert. For this reason, the wise expert will obtain a basic understanding of all the rules, including the ethical rules that constrain the professional behavior of the attorney, before encountering the ineluctable conflicts in duties and responsibilities that can be created by conflicting rules. Modern courts and jurors are likely to assume that experts have their own ethical rules, both within their own professional communities of interest (such as licensed CPAs and structural engineers) and possibly even specific rules as to their conduct as expert witnesses within those specialized practices (as is the case with forensic psychologists and certain other professionals who often find themselves in court).

Judges and jurors, and for that matter everyone else, probably should assume that anyone representing themselves as belonging to a professional community of interest that takes responsibility for advising others about crucial matters that require special knowledge, training, and experience would have a clear set of ethical principles. Furthermore, anyone entitled to be recognized as an expert and qualified to give expert opinions concerning important matters in a court of law ought to be the first to agree that he or she recognizes clear ethical principles and rules that govern his or her conduct when performing expert duties.

Ethical Principles for Information Technologists

If the attorney is required to honor the interests of his or her client and to act within the ethics of the legal profession, the objective expert technologist is also required to honor the spirit and tradition of scientific integrity when applying scientific methods as part of his or her expert duties and responsibilities. You might legitimately wonder how scientific integrity is defined and interpreted, especially given the dynamic nature of scientific progress. For starters, let's consider the consensus of communities of technical and scientific experts.

There are many professional organizations for technologists whose members are likely prospects for expert witness duties. Most of these organizations provide codes of ethics as guidance for their members. Consider the common tenets of several codes of ethics from the major professional organizations whose members are IT practitioners.

An Overview of Professional IT Organizations

The following organizations are chartered to advocate the scientific and technical theory and practice of networking, engineering, and computing sciences, from which many information technologists are drawn. Hundreds of specialty professional organizations deal with IT; however, most have codes of ethics that are in harmony with those published by the organizations that follow.

The Institute of Electrical and Electronic Engineers (IEEE)

The IEEE, founded in 1884, advocates the scientific and technical theory and practice of electrical engineering and the allied engineering areas of electronic, radio, and information technologies. As it publishes many of the peer-reviewed journals related to computer hardware, networking, and software engineering, it serves as one of the primary professional communities for information technologists.

The Association for Computing Machinery (ACM)

The ACM, which was founded in 1947, is the first educational and scientific computing society. Like the IEEE, it promotes scientific advancement in the area of computing technologies and publishes peer-reviewed technical journals. Although the ACM also publishes a code of ethics for computing professionals that includes a code of professional conduct, the ACM code varies in structure from that of the IEEE.

The Codes of Ethics

Several common threads run through professional codes of ethics and codes of conduct for technology professionals. We have selected several key components to these codes for review here.

- **Technology is important to modern society.** For much of the civilized world, technology permeates everyday existence. In particular, information technologies can be involved in delivering water, electricity, and other necessities of life to households. It also drives the financial and economic infrastructures on which society relies. It is important for technologists to understand that their professional responsibilities have significant impacts on the world at large.
- **Technologists must take care not to endanger the life, health, safety, and welfare of the public.** In a world where technology can save lives, regulate transportation, control manufacturing assembly lines, and meter electricity, it can just as easily wreak havoc, deny needed life supports to innocent parties, and result in massive casualty. Thus, it is easy to understand how the incidental failure of technology can have catastrophic effects on members of society. It is the responsibility of technologists to take great pains to ensure that their technical activities do not endanger the public. This might be considered the technologist's equivalent of the Hippocratic Oath—a commitment to do no harm in the course of performing professional duties.
- **Technologists should demonstrate competence and due care in their technical duties.** This rule means that technologists should be both prepared for

their technical duties and careful in the execution of those duties. Lapses on either front can lead to catastrophic results.

- **Technologists must maintain and update their technical skills.** It is the nature of technology to be dynamic, but in IT the speed of progress is measured in hours and days, not months and years. This means that technologists must continuously update their technical skills, using both informal and formal means, as new research findings, products, and ideas are reported.
- **Technologists should avoid conflicts of interest.** Employers and clients value technology professionals for being objective and independent in their technical findings. A conflict of interest occurs when a technologist has private or personal interests that conflict (or sometimes, merely appear to conflict) with this objectivity and independence. At the very least, a technologist, when encountered with a situation in which the possibility of a conflict exists, should inform the parties involved and allow them to participate in mitigating the situation.
- **Technologists should be honest and forthright in their dealings with others.** In general, technologists should be honest. As in the previous point, this requirement of honesty and forthrightness is necessary to preserving the objectivity and independence that represent a technologist's value to a client.
- **Technologists should be honest about their limitations, acknowledging errors and correcting them.** Although this is in fact a special case of the prior rule, this tenet is especially critical for technologists. Over time the reach of technology grows to the extent that mastery of all areas of technology by a single person is simply impossible. A technologist's value depends on the ability to be objective about what he or she does and does not know. This is especially important when, as often happens in litigation, the technologist is dealing with a technology outsider who is likely to be unable to make an independent determination of the technologist's real capabilities beyond a superficial review of his or her educational credentials or professional résumé. The second portion of this rule, that of acknowledging errors and correcting them, is also important for any expert practitioner. First, it isn't reasonable to expect perfection of any human. Therefore errors are expected in any production environment. That said, part of professional responsibility calls for checking one's work product for errors and correcting those errors when identified. In intuitive terms, this rule essentially deals with the attributes of a mature person, who has integrity and takes responsibility for his or her actions.
- **Technologists should refrain from discriminating against individuals based on race, religion, age, gender, or national origin.** Although this rule is a reflection of civil rights philosophies in place in much of the civilized world,

it is one of the most demanding of the ethics requirements of technologists—for this rule applies not only to the interpersonal interactions of a technologist (for instance, his or her selection of a project team or relationships with clients and peers) but also to the intended application of the work product. A technologist who is asked to write a performance appraisal system that automatically downgrades the scores of one ethnic group must, by the terms of this ethics code, refuse that task. Furthermore, a technologist who is asked to develop a promotional Web site for a hate group must also refuse the task.

- **Technologists should give proper credit to others for their work and honor property rights, including copyrights and intellectual property.** The original intent of this rule was likely to enforce standards of academic honesty when reporting original work. Given the nature of the information economy, it takes on even more significance these days. Many of the most precious assets of modern corporations involve intellectual property. Therefore, this rule calls for technologists to exercise care in handling the intellectual property of others, recognizing the property rights associated with knowledge-based assets.
- **Technologists should help the public understand technology and support the professional development of peers.** This rule covers the responsibility of technologists in the community at large. Note that this rule actually promotes the participation of technologists as expert witnesses, given the educational role that duty requires.

Other Pertinent Rules

In addition to the common ethics rules above, many other professional values are promoted as suitable for technologists. These include protecting client information as confidential, respecting individual rights to privacy, complying with laws, agreeing to access systems only when authorized, and honoring contractual commitments.

A special case of ethics rules is in the form of a Request for Comments (RFC) published by the Internet Society, the body that governs the operation of the Internet. This document outlines the acceptable, ethical use of the Internet.

The expert may belong to a community of interest that has set forth a specific set of ethical guidelines or rules or has endorsed those of other professional organizations. Regardless of whether there is a specific set of ethical rules, the cross-examining attorney is likely to probe this area to attempt to determine just what sort of ethical code the expert acknowledges and then develop lines of questions that further probe whether the practices in the case at hand are consistent or inconsistent with those general ethical principles that the witness has committed to in his or her answers.

Beyond the ethics of a particular community of professional interest, generally accepted rules or recommended standards developed by various professional groups

govern the conduct of their members when asked to testify as expert witnesses. These generally accepted ethics guidelines will also form the basis of questioning by opposing counsel.

Model Ethical Rules and Recommendations for Expert Witnesses

As the importance of technical expert witnesses in litigation has grown, some specialized ethics rules and recommendations have been published to guide them. In particular, the Academy of Experts, headquartered in London, was formed by a group of lawyers and technical experts in order to champion the use of independent experts in settling legal disputes. As part of this objective, the Academy offers training, promulgates standards for expert witnesses, and provides a forum in which legal personnel and experts can exchange views.

The Academy of Experts Code of Practice

The Academy of Experts publishes a Code of Practice for Experts. Some of the rules in the code are restatements of the rules we listed above. However, some rules are peculiar to the legal process.

1. The expert has a duty to serve the court or tribunal.
2. The expert has a secondary duty to serve the best interests of those engaging him or her.
3. The expert should not be compensated on contingency. (That is, the expert should not receive compensation that depends on the outcome of the trial—to do so would represent an undue interest in the outcome of the trial, thereby compromising the expert's objectivity.)
4. The expert should arrange for appropriate insurance coverage in order to protect his or her client.
5. The expert shall exercise restraint in publicizing his or her practice, assuring that the publicity is accurate and not misleading in any way.[29]

Recommended Practices for Design Experts

Although it is not an IT-centric manual, *Recommended Practices for Design Professionals Engaged as Experts in the Resolution of Construction Industry Disputes*, has much information that is readily adaptable to the IT expert. The manual, published by

29. Paraphrased from the Academy of Experts' Code of Practice for Experts. Accessed July 29, 2002, at *http://www.academy-experts.org/defaultin.htm.*

the Associated Soil and Foundation Engineers (ASFE), is endorsed by a number of professional organizations. Robert Ratay lists recommended practices for design experts based on the ASFE information as follows.

1. *The expert should avoid conflicts of interest and the appearance of conflicts of interest.*
2. *The expert should undertake an engagement only when qualified to do so and should rely upon other qualified parties for assistance in matters which are beyond the expert's area of expertise.*
3. *The expert should consider other practitioners' opinions relative to the principles associated with the matter at issue.*
4. *The expert should obtain available information relative to the events in question in order to minimize reliance on assumptions, and he or he should be prepared to explain any assumptions to the trier of fact.*
5. *The expert should evaluate reasonable explanations of causes and effects.*
6. *The expert should strive to ensure the integrity of the tests and investigations conducted as part of the expert's services.*
7. *The expert witness should testify about professional standards of care only with knowledge of those standards which prevailed at the time in question, based upon reasonable inquiry.*
8. *The expert witness should use only those illustrative devices or presentations which simplify or clarify an issue.*
9. *The expert should maintain custody and control over whatever materials are entrusted to the expert's care.*
10. *The expert should respect confidentiality about an assignment.*
11. *The expert should refuse or terminate involvement in an engagement when fee is used in and attempt to compromise the expert's judgment.*
12. *The expert should refuse or terminate involvement in an engagement when the expert is not permitted to perform the investigation which the expert believes is necessary to render an opinion with a reasonable degree of certainty.*
13. *The expert witness should strive to maintain a professional demeanor and be dispassionate at all times.*[30]

Recommendations for Structural Engineer Expert Witnesses

David Thompson and Howard Ashcraft, who outlined the ASFE recommendations for design professionals listed above, also outlined additional recommendations for forensic structural engineers who act as expert witnesses, including the recommendations listed that follow.

30. Ratay, Robert T., ed. *Forensic Structural Engineering Handbook*. New York: McGraw-Hill, 2000.

Qualifications

Engineering expert witnesses should guard against agreeing to take on matters that are not clearly within their areas of proven expertise. This can be determined by asking two questions: first, "Is this the type of work you routinely do?" and second, "If you were the client, would you hire yourself to do this work or would you hire someone with more experience?"[31] There is clearly a duty to advise a client and the client's attorney of any problems or limitations that you feel will impede in any way your ability to perform as an expert. This duty is part and parcel of being a credible expert, before, during and after accepting any assignment. The standard of integrity and avoiding any appearance of conflict of interest require complete disclosure of any limitations you may have to handle a particular assignment.

Options

Any technologist who serves as an expert witness should remember that there are almost always potential or actual competing theories that can explain an event or a failure. Good experts accept the responsibility of carefully considering all the other opinions and theories in addition to finding support for their own. Experts should never rule out a theory or opinion without considering all the assumptions that form the basis of competing theories and assessing their validity. These expert practices enable the witness to explain even more clearly why his or her own theory and opinion is entitled to greater weight than the options offered by other experts or authorities.

Assumptions

Experts should reveal their assumptions earlier rather than later in testimony.

> *Experts have crumbled under skilled cross-examinations when forced to admit their opinion is based on unstated assumptions. If the opposing party can prove these assumptions were false, the expert's credibility and opinions are destroyed. If the assumptions are limited or clearly stated, however, debate over basic facts is less damaging. At worst, the debate becomes a difference of opinion rather than an attempt by the expert to deceive the judge or jury.*[32]

Level of Inquiry

Technology design specialists need to draw up a work plan with the client that takes a standard shape and deals with the client's needs with the descriptive tools appropriate

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31. Thompson, David, and Howard Ashcraft. "The Expert Consultant and Witness." In *Forensic Structural Engineering Handbook,* Robert T. Ratay, ed. New York: McGraw-Hill, 2000, p. 16.

32. Thompson and Ashcraft, "The Expert Consultant and Witness," p. 16.

to the context. When accepting an assignment, expert witnesses are agreeing that the testimony they will give about their beliefs based on their expertise is true and also helpful to a fair decision on at least some of the issues in a case. Unless there will be ample resources to allow the expert to reach an opinion, the expert should not accept the assignment.

Integrity

This is really the sum of all the other recommendations, guidelines, and rules of ethical conduct. The expert brings technical competence and integrity to the stand. As Thompson and Ashcraft suggest, without equal portions of both, the expert is worthless.

Standard of Care

It is worth remembering that engineers are liable in professional malpractice actions if their services fall below the accepted standard of care in a particular jurisdiction.

> *A design professional is liable when a breach of the standard of care causes damage. Because the trier of fact (judge, jury, or arbitrator) does not know the standard of care and may not be able to analyze the technical issues involved with causation, most courts require expert testimony on these issues. Breach of the standard of care is ordinarily proved by testimony of experts who are conversant with the applicable standard.*[33]
>
> There are additional factors to consider:
>
> 1. *The need to guard against using only personal standards when asked to testify about standards of care,*
> 2. *The need to confirm that the expert was practicing at the time of the incident that the alleged failure to adhere to the standards in existence took place,*
> 3. *The need to take special pains to investigate the consensus of experts about an issue where there do not readily appear to be any clearly stated or recognized standards of care, and*
> 4. *The recommendation that as a general rule, an expert should "not testify about the standard of care unless [the expert has] performed similar work under similar circumstances."*[34]

A Cautionary Note

It is tempting for an aspiring IT expert to focus on the possibility of being called as an expert to testify on the standard of care in connection with information technology or

33. Thompson and Ashcraft, "The Expert Consultant and Witness," p. 17.

34. Thompson and Ashcraft, "The Expert Consultant and Witness," p. 17.

information security issues. Presumably, in some of these cases it is alleged that another expert or organization has failed to live up to those standards. However, it is important to understand that it is also possible for the expert to be liable for gross negligence in performing the duty of an expert witness. Recent cases have held that different types of expert witnesses can be liable for negligent performance of their duties where it can also be shown that their client or another party was damaged as a result of that negligence. This is a rapidly developing area of malpractice law. If you need an additional reason to become familiar with the ethical rules that relate to expert witness practice, this potential liability should be sufficient incentive.

Any forensic expert, regardless of his or her specialty, should become thoroughly familiar with the ethical and forensic standards and rules of conduct that relate to that specialty before considering accepting an assignment as an expert. Information technologists have been slow to push for licensing and other formal recognition of professional status. Nevertheless, as more and more IT and information security experts are called to assist the courts, those courts will begin to fashion standards of care that apply not only to the objects of the forensic expert's analysis but also to the competence and performance of forensic experts themselves. These standards will likely apply to IT experts practicing in the capacity of a recognized expert, with or without the traditional trappings of legislatively or socially recognized and licensed professionalism.

Ethical Standards for Attorneys

As mentioned before, many of the ethical imperatives facing lawyers involve their responsibility to their clients. However, this responsibility is not infinite. Attorneys may—indeed must—advocate on behalf of their client's interests, but attorneys may not encourage or allow their clients to testify falsely when answering interrogatories, responding to requests for written admissions, giving a deposition, or testifying on direct or cross-examination at trial. Neither may the lawyer counsel or assist any other witness to testify falsely.

This strict prohibition against presenting false testimony is also primary to the legal ethos. The attorney cannot allow an expert to stretch the truth under the claim that it is solely up to the expert to determine what is or is not the truth. Furthermore, the rationale that this is somehow an exception to the absolute prohibition from knowingly assisting any witness to shade the truth is fatally flawed. Although the special powers afforded an expert witness by the court allow the expert great discretion to determine what constitutes truth within his or her expertise, this doesn't nullify the attorney's responsibility under the ethics code. Therefore, regardless of the expert's privilege, the rule that absolutely prohibits a lawyer from assisting a witness in testifying falsely still applies.

Model rules for expert witnesses make this same rule as clear as a bell. Abuse of these clear ethical rules for lawyers and the suggested rules for experts can lead to what

would clearly be perjury by any non-expert witness. Both the bench and the bar have pushed for greater control during litigation. *Daubert* and its progeny empowering courts to take a more active role in the qualification of experts and the admission of their opinions can be seen as a direct reaction to the perceived pattern of abuse of this fundamental rule.

An equally fundamental ethical rule that affects attorney conduct is the absolute requirement of attorney–client confidentiality. Another related rule exists to protect what is called the attorney work product from disclosure to and discovery by the opposing party. This rule exists to protect the mental processes and strategic planning of counsel from being given to the other side. It harks back to the fundamental commitment to advocacy by opposing parties and is often invoked by a party to prevent what is considered unfair advantage to a party that seeks discovery of the other party's work product when the party seeking to discover could do the work itself. But the attorney work product privilege goes only so far and is of little help to the technical expert required to take the stand at a deposition, hearing, or trial. A novice might naïvely and mistakenly believe that the attorney work product privilege should cover what the attorney and the testifying expert discuss. This is not necessarily the case in federal courts where Rule 26 covers the disclosure of all matters that formed the basis of the expert's opinion. It is also not the case in those state courts that have either adopted the federal rules of procedure or have case law that requires all communications concerning the expert's work to be discoverable.

Attorney–client confidentiality is almost always honored by the court unless there has been a waiver by some act of the client or the attorney, and this same confidentiality umbrella is most often extended to cover conversations and communications between and among the attorney's team, including other attorneys, paralegals, support staff, and consulting experts who will not be identified or called to testify. Importantly, no such privilege is generally extended to conversations between the attorney or the trial team and the testifying expert. While there are confusing and contradictory decisions relating to this question of under what circumstances communications with a consulting expert are or are not subject to discovery, it is prudent to assume that, unless the expert is acting solely as a consulting expert, anything that the attorney or anyone else says to the testifying expert is not protected by attorney–client confidentiality, the attorney work product, or any other legally recognized privilege. An expert who is hired to give a formal opinion and to testify in a civil or criminal case should assume that any conversations, communications, and documents are fair game for opposing counsel to inquire into in deposition and at trial.

Going to the Movies for More Examples

To state the general rule against influencing the testimony of witnesses is a simple matter. To determine how it applies when it comes to developing testimony for a dep-

osition or at trial is tricky business. As W. William Hodes points out in a series of law review articles,[35] some esteemed members of the bench and bar decry litigation tactics that come anywhere near the line that can be drawn between perjury and the objective testimony of witnesses. The technique of subtly (and not so subtly) influencing a witness is known to litigators as "horseshedding" the witness. In this section you can once again benefit from the price of a couple of video rentals and begin to appreciate some of the ethical problems encountered in the use and abuse of expert witnesses.

In particular, the controversial issues surrounding the practice of horseshedding are presented in two legal classics, *The Verdict* and *Anatomy of a Murder*. These important issues are presented in different ways. *The Verdict* focuses on the struggle of a civil lawyer to find the expert he needs to expose the conspiracy of silence and the false testimony of experts for the civil defendants, while *Anatomy of a Murder* involves the relationship between a defense attorney and the defendant. In addition to thinking about where the line should be drawn between appropriate and unethical witness preparation as represented in these movies, you should also realize that real jurors, who are also movie fans, may be looking at any expert witness performance with prejudices colored by these classic scenes. While the memory of the scenes we are about to consider may no longer be conscious to those real jurors, the bias or prejudice they may have formed against lawyers or expert witnesses because of these kinds of movies can play a part in how they view what they see in their service as jurors in a real case. These and similar dramatizations portray the methods used by lawyers to blur the line between ethical but still highly questionable tactics in the representation of a client and the legitimate preparation of the testimony of any witness.

The Verdict, directed by Sidney Lumet and based on the novel by Barry Reed and the screenplay by David Mamet, was released in 1982. It stars Paul Newman as the plaintiff's attorney and James Mason as the insurance defense lawyer for two doctors who have been sued for malpractice. The film received five Academy Award nominations. Although this film is worth a look on its merits, it is especially suitable fare for anyone interested in exploring the games associated with using expert witnesses in litigation. *The Verdict* is one of a number of pictures that portray the judicial system as thoroughly corrupt in all its many twists and turns, even as it holds out hope that a jury will still be able to figure out the truth.

The film tells the story of a down-and-out alcoholic trial lawyer with only one client and only one chance to turn his failing practice and life around. Paul Newman's client has been injured, left in a vegetative state by a botched delivery that also took the life of her child. The culprit is an overworked anesthesiologist in a Catholic hospital

35. Hodes, William W. "The Professional Duty to Horseshed Witnesses—Zealously, within the Bounds of the Law." *Texas Tech Law Review* 30(1343), 1999.

in Boston. A well-meaning bishop is talked into letting the masterful James Mason (in the role of the hospital's legal counsel) push the hapless Newman to trial in order to make a last-minute settlement at the lowest possible cost to the Church.

Enraged after he visits his comatose client in the hospital, Newman decides to turn down the lowball settlement offer and fight the good fight. He believes he has an ace in the hole with a dream expert who is willing to buck the medical establishment and tell the truth about the defendant's incompetence, which he describes as criminal. Now, if you've thought about being an expert in a real case, you might ask yourself what an accomplished physician and respected expert is thinking by signing on to be a member of a drunken, down-and-out attorney's litigation team. Apparently the expert does give it some thought and ultimately abandons the plaintiff's case, heading for the Bahamas, where he cannot be subpoenaed on the eve of the trial.

Newman's replacement expert has problems that are played up at trial, and he ends up actually helping the defendant by his demeanor and answers in the course of the cross-examination by Mason. What makes the film essential viewing for our purposes are the scenes when Mason and most of his law firm prepare the defendant to testify. The viewer is shown a magnificent conference room. Around an enormous hardwood table sit enough high-paid associates to staff the combined forces of the O. J. Simpson defense table, the *Harvard Law Review*, and a Congressional hearing with the full committee in attendance. Video cameras capture every word and gesture of the witness for future critique. Pens and pencils are poised over legal tablets to create the perfect questions and answers for their mentor. The expert witness hardly gets a word out before either Mason or one of his minions corrects the wrong impression that a candid answer might create, letting the expert know what he should have said and how to say it most persuasively in order to win the case.

Perhaps the most famous cinematic witness preparation scene of all time takes place between James Stewart, playing the defense attorney, and his client, played by Ben Gazzara, who has been charged with murder in the 1959 film, *Anatomy of a Murder*. This classic film, based on a book by a Michigan Supreme Court judge, was also nominated for a number of Academy Awards.

There is a large and growing legal literature debating the ethics of what has come to be called in the legal trade "the speech" but what is really a variation of what we have been discussing as horseshedding the witness. As with the schooling of a criminal defendant in *Anatomy of a Murder*, the preparation of an expert witness in a civil or criminal case raises a number of difficult ethical issues for both the lawyer and the expert. All of these ethical issues revolve around just how far the lawyer can go to prepare the expert to get the facts and the issues right, in order to prevail against an opponent who is presumed to be doing his or her best to script the opposing expert to persuade the judge and jurors that their opinions are entitled to carry the day in court.

The horseshedding that takes place in *Anatomy of a Murder* involves a defense attorney coaching his client to beat a murder rap with an insanity defense. The main courtroom action in *The Verdict* offers dramatic insights into how the rules of evidence and procedure (stretched to the breaking point to carry the story) relate to what attorneys and experts can ethically do when preparing testimony and how those rules are abused during the actual process of preparing for and putting on the experts at trial.

So, the audience and the jury in *The Verdict* are forced to endure the mismatch between the polished performance of the thoroughly corrupted defendant doctor and the honest but ineffectual substitute expert called at the last minute to the stand by the plaintiff to prove that there was medical malpractice. Mason impeaches the expert as to his qualifications and experience by pointing out that he often testifies for injured plaintiffs against their doctors. The suggestion is that he has become a 74-year-old professional plaintiff's witness and that this has become his practice and also how he makes his living. Not content to let Mason pin the plaintiff's expert through a devastating cross-examination, the judge jumps into the ring and finishes off the expert with a few off-the-wall evidentiary rulings that would make a directed verdict in favor of the defendant all but certain in the real world.

Now, it is certainly true that not all advocates are equally skilled, and those less skilled tend to lose in litigation. It also happens that some judges do take sides when they should be objective between the parties, their attorneys, and their expert witnesses. For our purposes, these movies depicting the abuse of the rules of evidence and procedure by a judge and the unethical schooling of experts by a masterful manipulator suggest the kinds of questions an expert might also want to ask about the presiding judge and opposing counsel during any given case.

The Verdict helps us recognize and learn to laugh at the obvious weakness in the system. Of course, it's far easier to laugh when these abuses are dramatically carried out in order to set up the miracle that allows justice to prevail and the jury to reach the right verdict. It also makes it possible to escape a cynical view of the process, while keeping in mind the obvious flaws and pressure points that are subject to systematic abuse or failure.

The Verdict also helps us understand the different and sometimes conflicting roles that experts can wind up playing in litigation. It is essential for the expert to grasp at the outset of any expert witness engagement what role or roles he or she may be called to play. No single rule or concept is more important in the shaping of the presentation of the testimony of witnesses at trial than the rule that forbids fact witnesses from testifying about their opinions.

The first expert we see is the defendant doctor being told what to say and how to say it. Although the good doctor is certainly going to be qualified as an expert when

he testifies for the defense, if he is called as a witness by the plaintiff, which is often done in personal injury litigation, he will be treated like any other ordinary witness by the plaintiff. In this case there are several reasons for this treatment. The doctor is being sued, so he is a party to the litigation and cannot escape the fact that he plays the role of both a party and a fact witness, in that he was present and responsible for the treatment that the plaintiff received during her surgery. This means that the plaintiff's lawyer can go into just about anything, including everything that the doctor, as a factual witness, knows about the actual incident, without giving up his expertise to render an opinion.

The distinction between fact and expert witnesses is one of the most fundamental rules that shapes the conduct of litigation. Factual witnesses are ordinarily not allowed to give their opinions, while experts can. This enormous difference between the way the rules of evidence treat the testimony of the ordinary witness, who is restrained from opining about much of anything, and that of a qualified expert to render opinions has required the modern jury trial to be remodeled around the handling of experts in discovery and at trial. The *Daubert* and *Kumho Tire* guidelines and the recent changes to federal and state rules of evidence and procedure all reflect this core importance of (and litigation's increasing dependence on) the testimony of experts.

In *The Verdict*, because the expert doctor is also testifying as both a factual witness and a party opponent, the judge may need to be creative in deciding how to admit the doctor's opinion about whether his actions and the actions of the surgical team measured up to or exceeded the standard of care, which is the ultimate issue in the case. What is interesting about the facts portrayed in this story is what the audience knows happened when the defendant's lawyers rehearsed the doctor for his testimony. What the audience would like to see come out at the trial is the doctor's objective assessment of the quality of care he delivered to the plaintiff. This issue could be explored if the defendant were allowed to testify as an expert. However, because of the attorney–client privilege, this issue probably could not be broached if he were testifying simply as the client/defendant and not as a testifying expert. This is because the fundamental rule that protects the confidentiality of attorney–client conversations and certain other materials that may be developed by the lawyer in preparation for the trial will usually trump the need to fully cross-examine a non-expert witness about what may have influenced his or her testimony.

However, the minute the witness is qualified as an expert, these matters may be explored with the court's permission in order to fully examine the basis of the expert's opinion. It is almost always a mistake for an expert to believe that anything that is discussed with an attorney in preparation of an expert report or other aspect of the assignment will be considered privileged by the rules of evidence. One expert legal scholar, David Malone, who has published a number of valuable resources for both lit-

igators and expert witnesses,[36] puts the basic principle somewhat facetiously in his litigation training sessions to the effect that the only written document that a lawyer needs to independently prepare, sign and give to the testifying expert is the check for services rendered."[37] The point Malone stresses is simply that whatever the lawyer gives to the expert is most likely to be considered as discoverable and to be fair game for examination during deposition or trial testimony. This being the case, ethics aside, for the attorney and the expert to engage in the kind of behavior that *The Verdict* presents so effectively for our entertainment may also be subject to discovery.

Because the law attempts to protect both of these interests, it is most likely that in a real case such as this the court would not allow the plaintiff to breach the attorney–client privilege and attempt to force the doctor to answer questions about what he was told by or has discussed with his attorney, merely because the defendant was a potential testifying expert. However, if the defendant sought to qualify the doctor as an expert for the purpose of giving his expert opinion as to his own or another doctor's negligence, the court would probably allow the plaintiff to inquire into what was discussed and rehearsed in preparation for his testimony as an expert witness. The real lesson here for the beginner is simply that the law attempts to facilitate the presentation of all the relevant evidence, without unnecessarily or unfairly compromising any important rights or interests of individuals involved in litigation. The expert needs to be clear on the roles that he or she may be asked to play at the beginning of the relationship, so that appropriate communication channels and methods can be used by both the expert and the trial team throughout the litigation.

Advocacy by experts, whether prodded by the horseshedding of the lawyer or due solely to the expert's frolic, is almost always a mistake and can easily lead to disaster when competent counsel with adequate information about what is really going on approaches the witness to cross-examine.

The last move by the lawyer played by Paul Newman in *The Verdict* that we want to mention is the equally pathetic scene in which the plot treats the audience to an example of what happens when a lawyer who cannot afford to pay for an expert to testify to the truth makes the fatal mistake of retaining a well-meaning, semi-retired doctor who is really just an expert for hire. While in real life an honest expert may be available due to his or her own decision to specialize as a forensic expert or because he or she can no longer find interesting employment as a doctor, in the movie, the fact that the expert has a good heart does not save his credibility when the highly skilled opposing counsel succeeds in showing a demonstrable bias toward testifying

36. For example, see Malone, David M., and Paul. J. Zwier, *Effective Expert Testimony*. Notre Dame, IN: *National Institute for Trial Advocacy*, 2000.

37. Malone, David. From his comments at a litigation training session in Albuquerque, NM.

for injured plaintiffs and little recent clinical experience other than preparing to testify in court. As if that were not bad enough, the expert has none of the qualifications and credibility to get beyond the jury's suspicions as to his bias and lack of current practical experience about the practice of medicine. To make matters even worse, he is not competent to testify effectively and makes extremely damaging if not devastating admissions on cross-examination. Taken together with the examples of the defense lawyers feeding the defendant doctor not only his lines but also his entire expert persona, *The Verdict* gives us a series of vignettes that can serve as object lessons as to what to avoid in any relationship that the beginning expert may consider forming with the attorney and client involved in civil litigation.

To end our visit to the movies, suffice it to say that *The Verdict* and to some extent *Anatomy of a Murder* have given movie-going audiences some food for thought in the form of classic stories of how the lip service we all pay to the ethical principle that the justice system is based on the search for truth is easily compromised by the deft corruption of the experts called to help the jury understand complex issues. In fact, these stories do perform a service by putting us on our guards that the temptation to corrupt the principle of truth seeking through a trial by turning the objectivity of competent retained experts into the biased advocacy of paid witnesses is a very serious threat in any trial. One reason that cynics use terms like "hired guns" and "prostitutes" to refer to the purchase of qualified experts to render biased testimony is that the experts who agree to give a biased opinion (or end up rationalizing the presentation of biased testimony) without revealing that fact to the court and the jury are in fact selling a commodity or service that is not supposed to be sold.

These Hollywood stories take for granted that there is a certain amount of cynicism concerning the potential for this kind of corruption already in the minds of their audiences. In neither movie is this cynicism overcome by the safeguards of the system. In both stories the bad guys attempt to get away with murder again—but this time in terms of their abuses of the expert witness opportunities the system offers. Unlike these cinematic cases, the unethical injection of bias into the approaches and findings of experts are not always so easy to discover. There are serious institutional and procedural problems with the way expert witness testimony is sometimes allowed to be solicited, prepared, influenced, and presented, all without necessarily giving any clue to the fact finder or to the opposing counsel that an apparently objective and well-qualified expert has been completely compromised and has in fact become a biased witness.

Pushing the Ethical Boundary

There is a long tradition and extensive philosophical literature in support of allowing parties to test each other's theories and proof, including their expert's qualifications, methods of testing or analyzing the evidence, and contradictions or mistakes in their testimony. The procedural and evidentiary rules that must be followed today in all

state and federal jurisdictions that support this tradition of trial by competitive advocacy do not ordinarily allow for the dramatic surprises in litigation that make movies so entertaining.

There is an inherent paradox here in that when experts are attempting to explain and teach a judge or a jury about a complex technical or scientific process or concept, the need to use analogies and metaphors means that there is going to be ambiguity in any expert presentation that is truly helpful to the fact finder.

Because expert testimony is not so much a science as an art, it will always be subject to a critique that undue influence is being exerted on the fact finder through the use of rhetorical techniques like the persuasive use of apt analogies and clarifying metaphors. But testimonial tactics that are subject to linguistic analysis and rhetorical criticism through cross-examination ought not be confused with intentionally attempting to present false or misleading expert testimony. When the basic rule that requires the attorney to shape his or her case to carry out the client's purposes is juxtaposed with the rule that forbids an attorney to assist in any way with the presentation of false or intentionally misleading testimony by any witness, we begin to see why these rules of conduct must be considered in tandem if they are to be understood at all.

For a ritual based on advocacy and competitive storytelling, the strategic decisions made by the trial team, and in part carried out by the expert witness, will seldom be easy to place with confidence at any great length from the line that separates zealous advocacy from objective expert opinion. Some legal scholars claim that attorneys should steer completely clear of this line. W. William Hodes and other legal scholars have argued that in reality the entire process of witness preparation is directed in one way or another at influencing a witness's testimony and presenting the client's situation in a completely truthful but more favorable light. When these two ethical rules are read together it makes no sense to use the rule that can be read to forbid influencing a witness's testimony to favor the client in such a conservative fashion that it cancels the attorney's ability to act as a competent advocate for the client. Such a constrained application could nullify the justifiable basis for hiring a competent advocate in the first place—to present the client's lawful interests within the context of all the ethical rules, and to present the client's claims in the most favorable light possible, in order to persuade the judge or jury. But for a moment, before we close this chapter, think once more about the way some trial lawyers handle the preparation of ordinary, fact witnesses to report under oath what they have done, seen, or heard to the fact finders.

> *With respect to distortion of the truth through omission, the rules of engagement in our real-world adversary system contemplate that each side will put its own best foot forward. The advocate's goal, after all, is to present a winning case, not a neutral report that covers all of the bases and makes the maximum contribution to revelation of the truth. If there is evidence that weakens the case, the other side will be only too pleased to bring it forward. Thus, the choice of what material to present and what*

to omit is a crucial aspect of every litigating lawyer's overall advocacy effort, and the resulting "courtroom truth" need not match every chapter and every verse of objective truth. For this reason lawyers never counsel witnesses to tell "the whole truth." Witnesses are instead told—as they should be—to tell the truth in response to whatever questions are asked. The lawyer will then be careful to ask only such questions as will elicit truthful-but-favorable answers. If the other side's lawyer fails to ask questions that will result in truthful-but-unfavorable answers, that is the other side's misfortune, for which the proper remedy is a suit for legal malpractice, not an attack on the first lawyer. . . .

The adversary system maintains somewhat of a schizophrenic position regarding discussions about proposed testimony that results in changes in the testimony that is actually given. Everyone agrees, for example, that an expert witness may be taught to avoid the use of technical terms, or to avoid mannerisms that might displease a jury. And a lay witness may be urged to use words that have accepted meanings in the context of a particular case, or not to use slang or derogatory terms. On the other hand, most authorities hold that it is improper to "influence" the way in which a lay witness will testify, including influencing his choice of words. But the distinction is vacuous. . . . In my view, it may be permissible to go even further, given the premise that the presentation of even factual testimony is a matter of advocacy, not reportage. Suppose, then, that suggestions from counsel enhance the effectiveness of the witness's communication, without enhancing its accuracy. So long as the material eventually presented is still truthful, and at least not less accurate than the pre-horseshedding version, why should that be beyond the bounds of law? Legal ethics is hard. You must try to find the line between what is permitted and what is not, and then get as close to that line as you can without crossing over to the bad side. Anything less is less than zealous representation—which already leaves you on the bad side of the line. Whatever distance is left to travel up to that illusive line is territory that belongs to the client and has been wrongfully ceded away. . . .

Play that formula out in the context of horseshedding, and you have ethical lawyering in a nutshell. Arming the client with pertinent legal information and trusting the client to make good and legitimate use of it demonstrates loyalty and zealousness. Recognizing that at some point a loyal servant can be manipulated into becoming an accomplice in crime is honoring the bounds of law. And knowing how to flirt with that boundary but not cross over it is true professionalism.

True professionalism takes not only loyalty and the skill to find those boundary lines, but also courage. Professional lawyers must not only have the courage to make hard and close choices, but also the courage to stand up for the choices that they made. Lawyers have essentially only one job—to represent clients zealously, within the bounds of law. But not everyone—not even everyone within the legal profession—will praise lawyers for a job well done.[38]

38. Hodes, "The Professional Duty to Horseshed Witnesses," pp. 1360–1361, 1363–1364, and 1367.

Note the contrast between the role of the attorney, whose ethical responsibility to serve as a zealous advocate for his or her client may lead the attorney to obscure key points (that are harmful to the client's case) in his arguments before the court, and the expert, who has an equally vital responsibility to explain the technical evidence to the fact finders in a clear and objective fashion. Even as you are cognizant of the attorney's responsibility to push the boundaries, you must also understand that your responsibility as an expert witness is to be immovable in the truth. It is only in this interplay between advocate and expert that the best decision becomes accessible to the fact finders.

The Responsibility of the Expert Witness

Professional expert witnesses who are called on to provide critical testimony in life-and-death struggles require the same character strengths attorneys need. How experts decide to shape their testimony must comply with the ethics and ethos of both their profession and the legal system of justice. This means that experts must be qualified, objective, scrupulously honest, forthright, unbiased, and prepared to deliver their testimony in a clear and convincing fashion. To do any less does a disservice to the court and the client alike.

However, technical acumen is not enough. Like good lawyers, good expert witnesses must possess not only the requisite knowledge and skills but also the courage of their ethical convictions. They must also have the resolve to explain their meaning clearly and convincingly to those who must decide the outcome of these courtroom struggles. This may mean that the ethical expert must persevere with the knowledge that another expert or opposing counsel may not feel constrained by these same ethical principles or rules of professional conduct.