1991

Presenting Expert Testimony

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Introduction

Mindful that the readers of this Commentary include both experienced advocates as well as lawyers embarking on new careers in the courtroom, this author has divided the Commentary into two parts. The first part considers the seven touchstones for a persuasive direct examination of an expert witness. This discussion should be useful for the experienced and inexperienced advocate alike. The second part of the paper is intended as a primer on practical matters surrounding the selection, preparation, and presentation of an expert as a witness at trial. Experienced advocates may find in these pages confirmation of their practice concerning the selection and use of experts. For those starting careers as advocates, this section offers helpful suggestions on basic issues concerning the selection and use of experts.

I. Seven Touchstones for a Persuasive Direct Examination of an Expert Witness

Of all the advocacy skills and techniques used by an advocate during trial, direct examination is the most underrated. A trial lawyer, basking

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This paper is dedicated to trial lawyers, who devote their professional lives to resolving disputes peaceably through the common law adversary system. For trial lawyers, nothing is more precious than our common law adversary system, which is the greatest vehicle ever developed for resolving disputes, seeking justice and maintaining a peaceful and orderly society wherein the rights of all are respected.

in the glory of a recent victory, almost never regales the audience at a bar association meeting, the law firm, or the local watering hole with the exploits and drama of the direct examination during the trial. Many trial lawyers and teachers of advocacy view direct examination as the least glamorous part of the trial, and it is too often ignored in its preparation and execution. Yet the direct examination of an expert witness (or indeed any witness giving complex testimony) is often the most important part of the trial. Cases are won on the facts as presented on direct examination, not on the histrionics of the lawyer, no matter how brilliant.

During cross-examination the trial lawyer is the star. Most trial lawyers view cross-examination as glamorous, and all lawyers aspire to be great cross-examiners. Cases, however, are rarely won on cross-examination. The cross-examination can weaken an opponent's case, gain agreement on facts that help the case, or let a little wind out of the expert's sail, but seldom does the fact-finder's decision rest on the cross-examination. The corollary, however, is that an ineffective cross-examination that repeats and enhances the direct examination can strengthen the opponent's case-in-chief and thereby lay the foundation for losing the case.

In summary, a well prepared and competent direct examination, particularly of an expert witness, can win a case by giving the fact-finder a basis for the decision. Great cross-examinations do happen, but rarely do they win the case alone. Cross-examination is usually most effective when poking holes in the opponent's case-in-chief or gaining agreement on issues that help the case.

A. An Organizational Structure for Direct Examination of an Expert Witness

One of the most effective tools for preparing a competent direct examination is an organizational structure for the examination. This is especially true when the subject of the expert's direct testimony is his expertise, which is by definition, beyond the understanding of lay-persons. An organizational structure assists the lawyer and the witness in presenting persuasive and effective expert testimony.

The following seven touchstones provide a suggested organizational structure for the direct examination of an expert witness:

1. Introduction—Identification and Relationship to the Case;
2. Qualifications;
3. Tender Witness as an Expert;
4. Assignment and Overview of Basis for Opinion;
5. Opinion;
6. Explanation of Opinion—Teaching;
7. Conclusion—End Strong.

B. Touchstone #1: Introduction—Identification and Relationship to the Case

The introduction should clearly identify the witness. The witness's relationship to the case should be explained in the introduction. Thus, the introduction should set forth: the witness's name and profession, the witness's reason for being called to testify, and the subject matter of the witness's testimony. Furthermore, an introduction should also include a succinct statement of the expert's opinion which (1) informs the fact-finder why the witness is testifying and his relationship to the case and (2) encourages the fact-finder to listen more carefully to the witness's qualifications and investigation.

The following is a sample of questions which may be asked to establish the witness's relationship to the case.

1. What is your name?
2. What is your occupation or profession?
3. What is your business address?
4. What is your area of expertise or specialty?
5. Have you been asked to _____?[1]
6. Have you prepared an opinion on _____?[2]

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1. Insert a summary statement describing the investigation or examination that the expert was retained to perform. For example, investigate the costs incurred by Pierce Electric due to the overrun of the construction contract, or analyze the design of the hydraulic system on the DC-10, or diagnose the injuries to plaintiff caused by the toxin xyzlet.

2. Insert a summary statement of the expert's opinion (for example, the total costs incurred by Pierce Electric due to the delays in the construction project caused by the defendant, the physical injuries caused to plaintiff by the toxins xyzlet, or whether the design of the hydraulic system in the DC-10 was defective).

7. Before we get to your opinion in this case, what are your qualifications and expertise to give such an opinion? (Then go directly to the witness's qualifications.)

The traditional practice in the examination of expert witnesses is to elicit the name, occupation and profession, and the business address and then to proceed directly to the witness's qualifications. Including questions 5, 6, and 7 above provides a contextual framework for the witness's testimony at the very beginning of the examination, which enhances the fact-finder's interest in the forthcoming testimony on the witness's qualifications and the basis for his opinion. Without questions 5, 6, and 7, the witness may testify for a substantial period of time, presenting qualifications and the basis for the opinion, before the fact-finder knows why the witness is testifying or how the witness is important to the case.

C. Touchstone #2: Qualifications

Eliciting the qualifications of the expert witness lays the proper foundation for the witness's expertise and establishes the witness's credibility with the fact-finder. In most cases the credibility factor is the most important aspect of the qualifications process.

An outline for eliciting the expert's qualifications can be as follows:

1. Topic Areas for Qualifications

(a) Education;
(b) Special Training;
(c) Experience;
(d) License/Certification;
(e) Publications;
(f) Teaching Experience;
(g) Experience as an Expert Witness/Prior In-Court Testimony.

2. Tie the Expert's Qualifications Into the Case

For each topic listed above, the examining attorney should elicit as much information as possible on qualifications that are relevant to the issues in the case.

3. Priority of Persuasiveness of the Qualifications

Many lawyers focus a great deal of attention on the witness's educational and academic credentials. While such credentials are important, the primary focus should be on the witness's practical training and experience. For example, would the fact-finder prefer to have a major surgical procedure performed on him by a recently graduated medical student with excellent educational and academic credentials or by a surgeon with extensive practical training and experience?

4. Explanation of Expertise or Specialty

Medical and scientific experts typically have specialties and even sub-specialties, and their particular area of expertise should be explained to the fact-finder. Indeed, all expert witnesses should spend some time explaining their area of expertise and how it relates to the case in question.

5. Stipulating to the Expert's Qualifications

In some instances, particularly with a very well qualified expert witness, opposing counsel will attempt to cut off any testimony regarding the witness's qualifications by offering to stipulate to the witness's qualifications and expertise. The proponent of an expert witness should almost never accept such a stipulation. Counsel for the expert witness wants the fact-finder to hear and be persuaded by the expert's qualifications. Furthermore, the expert's credibility is at issue, and the fact-finder should have the opportunity to hear the expert's qualifications, as well as any other evidence bearing on credibility.

If, in the spirit of judicial economy, the court presses examining counsel to accept opposing counsel's stipulation to the witness's qualifications,

then examining counsel should request a stipulation that includes not only qualifications but also credibility. The underlying issue is really the credibility of the expert witness and his opinions. Thus, if the parties are going to stipulate to the expert witness's qualifications, then examining counsel should request that the stipulation include (1) that the witness is qualified as an expert, (2) that the credibility of the expert witness is undisputed, and (3) that the expert's opinions must be accepted by the fact-finder. Such an inclusive statement of all the factors involved in a stipulation on the expert witness's qualifications usually forces the opposing counsel to back off on the request for a stipulation and also forces the court to consider all the ramifications of such a stipulation.

If the court continues to insist that examining counsel accept opposing counsel's stipulation on the qualifications of the expert witness, then discretion and respect for the court must prevail. Accepting opposing counsel's stipulation to the qualifications can still be advantageous because it allows counsel to note in final argument that opposing counsel has accepted and stipulated to the qualifications and expertise of the expert witness. The ability to argue the stipulation on final argument is the reason trial counsel sometimes accept the stipulation even without being pressed by the court to do so.

D. Touchstone #3: Tender Witness as an Expert in a Particular Field

The lawyer has the opportunity to tender the witness to the court as an expert within a particular field of expertise. After eliciting the witness's qualifications, the lawyer tenders the witness as an expert by making the following statement to the court: "If the court please, I tender John Doe as an expert in _____."[3] The court will then turn to opposing counsel to inquire whether counsel has any objections to the witness testifying as an expert.

Opposing counsel then has the choice of (1) objecting and stating the grounds, (2) conducting a voir dire of the witness on the subject of his qualifications before deciding whether to object, or (3) stating

3. Insert area of expertise, such as damage evaluation, metallurgical engineering, toxicology, or internal medicine with a sub-specialty in endocrinology.

that there is no objection to the witness's qualifications. If opposing counsel decides to conduct a voir dire on the expert's qualifications at this point in the examination, most courts will preclude counsel from later inquiring into the same areas during the cross-examination of the expert witness. Thus, if opposing counsel wants to challenge the witness's qualifications, he must decide whether to do so on a voir dire during the direct examination or during the cross-examination. Courts generally do not permit opposing counsel to cross-examine the expert on his qualifications twice; opposing counsel only gets one bite at the apple. If opposing counsel has no objection to the witness's qualifications or if the court overrules the objection, the court will accept the witness as an expert in the particular field of expertise.

There are distinct advantages to tendering the witness at this point in the direct examination. First, the witness is formally recognized as an expert before the basis for the opinion and the opinion itself are presented to the fact-finder. Second, the issue of whether a witness is qualified as an expert witness is resolved early in the examination rather than later when examining counsel actually elicits the expert's opinion. This tendering procedure thereby prevents any disruption caused by objections and voir dire at the opinion stage of the examination.

E. Touchstone #4: Assignment and Overview of Basis for Opinion

After the witness has been qualified as an expert, tendered and received by the court, the direct examination should focus on the expert's knowledge of the case. This part of the examination can be broken down into two major categories: (1) the expert's assignment and (2) the expert's basis for reaching his opinion.

1. The Expert's Assignment

The first step is to elicit the expert witness's reasons for appearing in court and to handle the issue of compensation. A sample series of questions are as follows:

(a) Have you been retained to examine/investigate/evaluate the _____[4] in this case?
(b) Are you being compensated for your time?
(c) Is that compensation arrangement the usual and regular fee for these types of matters? Or, alternatively, is that compensation arrangement the usual and regular fee in your field of expertise?
(d) What was your assignment in this case?

2. The Overview of the Basis for the Expert's Opinion

The Federal Rules of Evidence permit an expert to give an opinion before providing the underlying basis for it.[5] Thus, the organization of the direct examination is left to the discretion of the trial lawyer.

In many cases, stating the expert's opinion before discussing the underlying data provides a useful frame of reference for the fact-finder. This is especially true when a financial consultant/accountant testifies as an expert because the financial data will not mean much without a preliminary statement of the conclusion which the financial data is to support. In other cases, however, it may be more appropriate to provide an overview of the basis for the opinion before eliciting the opinion. This procedure provides the fact-finder with a frame of reference for the work done by the expert before actually hearing the expert's final opinion. This approach makes the opinion more credible. Thus, rather than mandating trial strategies by a rigid rule, Rule 705 leaves such critical decisions to the trial lawyer, the one ultimately charged with presenting the most persuasive case for the expert.[6]

Using an Overview Approach to present the basis for the expert's opinion allows examining counsel to present the expert's testimony effectively and persuasively under *either* organizational structure (basis for the opinion being given before or after the opinion). Examining counsel can use the Overview Approach in *all* direct examinations of

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4. Insert a summary of the expert's assignment.

5. Rule 705 provides: "Disclosure Of Facts Or Data Underlying Expert Opinion—The expert may testify in terms of opinion or inference and give reasons therefor without prior disclosure of the underlying facts or data, unless the court requires otherwise. The expert may in any event be required to disclose the underlying facts or data on cross-examination."

6. *See* FED. R. EVID. 705.

expert witnesses and thereby forego the need for two organizational structures—one structure when the basis for the opinion is required before the opinion and a different structure when the basis is permitted after the opinion.

The objective of the Overview Approach is to set forth the underlying basis for the expert's opinion only to the extent necessary: (1) to introduce the fact-finder to what the expert did, i.e. the methodology he used and the data he analyzed, and (2) to lay the foundation for making the expert's opinion credible to the fact-finder. In this portion of the direct examination, the Overview Approach focuses solely on the methodology used and the data analyzed by the expert in reaching his opinion. It is important that the examining lawyer *not* let the fact-finder's attention wander or get lost in a maze of data and information before the expert's opinion is elicited. The fact-finder needs the opinion as a framework for the underlying information. Therefore, reserve the explanation and explication of the methodology and data used by the expert until the teaching portion of the direct examination.

The following are examples of questions giving an overview of the basis for the expert's opinion:

(a) You have told us that your assignment in this case was to _____.[7] How did you carry out that assignment?

or—

What investigation or research did you conduct for that assignment?

(b) What methodology did you use for your investigation or research?

(c) Is that methodology customarily used by experts in your field?[8]

(d) Briefly explain the methodology you used and why it is applicable to this case.

(e) What data did you analyze?

(f) Is that type of data customarily relied on by experts in your field?[9]

(g) Was the data analyzed sufficient for the methodology used on this project?

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7. Insert a summary of the expert's assignment.

8. *See* FED. R. EVID. 703.

9. *See* FED. R. EVID. 703.

Note how simple, clear, and straightforward the above sample topics for questions are for both the expert's assignment and the overview of the basis for the opinions. Keep it that way in this portion of the direct examination before the opinion is elicited. Although the methodology chosen by the expert goes to the expert's core thesis in the case, which is very important for the validity of the expert's opinion, the detail should be left for later. In the overview portion of the direct examination and explication of the methodology for later in the teaching section of the examination. Likewise for data collection, which also requires data explanation, save the explanation for the teaching section of the examination.

3. Assumptions

The assumptions made by the expert in the investigation or research process leading up to the expert's opinion are critical to the validity of the opinion and thus are obvious targets for cross-examination; therefore, they must be thoroughly brought out and explained during the direct examination. This author recommends, however, that the assumptions made by the expert should *not* be discussed in the Overview section of the direct examination, but should be fully explained in the teaching portion of the examination.[10]

In the Overview section of the direct examination, before the opinion is elicited, the questions should be simple, clear, and straightforward. It is very important for the validity of the expert's opinion[11] that the methodology chosen by the expert relate to the expert's core thesis in the case. Examining counsel should leave the details, however, for later. The Overview portion of the direct examination should bring out the methodology adopted, but save the explanation of it for later in the teaching portion of the examination.[12]

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10. For a discussion of the teaching or explanatory part of the direct examination, see *infra* Section H.

11. For a discussion of the elements of a valid expert opinion, see *infra* Part II, Section C(3).

12. See section H for a discussion of the teaching or explanatory portion of the direct examination. Likewise for *Data Collection*, which also requires *Data Explanation*, save the explanation for the teaching section of the examination.

4. Evidentiary Principles Relating to the Basis for an Expert's Opinion

The examining lawyer must determine what data the expert can rely on to reach an admissible opinion. Thus, the admissibility of the expert's ultimate opinion must be analyzed carefully regardless of where in the examination the underlying data for the opinion is discussed. If the expert cannot use the data to formulate an admissible opinion, then it may not be elicited in any portion of the examination.

In order to determine the admissibility of the underlying data and the expert's opinion, the examining lawyer must have an excellent working knowledge of the rules of evidence, specifically the rules governing expert witnesses. The permissible data that may be used by an expert in reaching an admissible opinion can be divided into two major categories: (1) what the expert did personally and (2) what the expert relied upon.

What the expert did personally is admissible data under the rules of evidence in even the most restrictive common law jurisdiction because the expert has personal knowledge and because the testimony presents no hearsay problems. Even then, however, the underlying data should be carefully analyzed to determine if there are implicit hearsay or double hearsay problems. For example, the expert performed the test, but in doing so he relied on tests performed by other scientists and on a journal article on the procedures for conducting such tests. In a restrictive common law jurisdiction, the examining attorney would need to find a hearsay exception for the admissibility of that data. In a more liberal jurisdiction the data would be admissible if it was of the type customarily relied upon by experts in that field.[13]

The second major category of data used by experts in reaching an opinion is information provided by others, upon which the expert relied.

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13. *See* FED. R. EVID. 703. Rule 703 provides:

> Bases of Opinion Testimony by Experts—The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.

FED. R. EVID. 703.

This type of data is information received by the expert from others either orally or in writing. As a result, by definition, such information presents classic hearsay problems under the common law rules of evidence. To avoid such hearsay problems under the common law, the other individuals that supplied the information had to be called as witnesses or a hearsay exception had to be found. To alleviate undue expense, both in terms of cost and time, the courts often strained the limits of the hearsay exception to accommodate testimony by experts in a modern technological society.

To accommodate the hearsay rule for information that the expert relied upon, but received from others, the other individuals had to be called as witnesses. The testifying expert had to sit through the trial to listen to the "other evidence" or receive the "other evidence" in the form of a hypothetical question. This procedure is not only cumbersome, it is also a fiction because it assumes that the expert listens to the "other evidence" at trial and then formulates an opinion which he presents to the fact-finder. In reality, the expert has done all his work before trial, and sitting listening to the "other evidence" is merely a fiction to accommodate the hearsay rule.

The hypothetical question can also be extremely cumbersome. Strictly enforced, the hypothetical question must include *all* of the relevant facts relied upon by the expert in reaching his opinion, *and* it may not assume facts that have not already been received in evidence. Under the pre-federal rules, there were numerous instances where the stating of a hypothetical question and the re-stating after objection took days. Furthermore, there were countless appeals on the sufficiency of the hypothetical question. A practice then developed of requiring the hypothetical question to be written out in advance and approved by the court at a pre-trial conference. However, even that procedure did not solve all the difficulties. Neither judges nor trial lawyers have lamented the demise of the hypothetical question under the Federal Rules of Evidence. With respect to the testimony of expert witnesses, it has been acclaimed as one of the great steps forward in modern evidence law.

Rule 703 of the Federal Rules of Evidence[14] confronted the problems associated with the application of the hearsay rule to expert testimony

14. FED. R. EVID. 703.

in a modern technological society. Rule 703 basically abolished the hearsay rule and all other evidence rules denying admissibility when the data is of the kind customarily relied upon by experts in that particular field. The drafters of the Federal Rules of Evidence decided that underlying data generally relied on by experts in a particular field should be sufficient for the courts.[15] For example, when making a diagnosis or prescribing treatment, a medical doctor in the course of making life and death decisions relies upon medical tests performed by others. Thus, the information garnered from such tests should be a sufficient basis for a medical expert's opinion in court. Moreover, the drafters of the Federal Rules of Evidence recognized the important role that cross-examination plays in attacking the validity of the underlying data.[16]

Rule 703 entitled "Bases of Opinion Testimony by Experts" provides:

1. The facts or data in the particular case upon which an expert bases an opinion or inference may be those:

   (a) perceived by the expert before trial;
   (b) perceived by the expert at trial;
   (c) made known to the expert at trial; or
   (d) made known to the expert *before* trial.

2. If the facts or data upon which an expert bases an opinion are of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, *the facts or data need not be admissible in evidence.*[17]

Under the Federal Rules of Evidence, data that an expert may use in reaching an opinion includes any and all data (1) that the expert personally collected or (2) that the expert relied upon which was received from others, but only if it is the type of data customarily relied upon by experts in a particular field of expertise.[18] Hypothetical questions

15. *See* FED. R. EVID. 703 advisory committee's note.

16. *Id.*

17. FED. R. EVID. 703.

18. *Id.*

are no longer required, and the fiction of having the expert sit through the entire trial and then use the facts so perceived as a basis for his opinion is alleviated. Under the Federal Rules of Evidence, judicial acceptance of expert testimony is in accord with the realities of modern society.[19]

F. Touchstone #5: Opinion

In the organizational structure of the direct examination, it is now appropriate for the expert to testify in the form of an opinion, which is what he has been retained to do. Because no other witnesses are permitted to testify in the language of opinions, this testimony is critical in the trial. Organizationally, examining counsel should set it off to show its uniqueness, and the language used by the examining lawyer should demonstrate its special nature.

1. Multiple Opinions

In many cases, the expert will testify to more than one opinion. The examining attorney should separate each opinion and elicit them seriatim. For example, when a medical expert witness testifies about an injury to a person, four opinion questions are typically asked: (1) diagnosis, (2) condition, (3) causation, and (4) prognosis.

2. Two Questions for Each Opinion

Traditionally, two questions are asked for each opinion:

(a) Do you have an opinion as to _____?[20]
(b) What is that opinion?

This procedure has been developed to allow opposing counsel an opportunity to object to the opinion question and let the court to rule on the objection before the opinion evidence is presented to the fact-

19. *See* FED. R. EVID. 702 advisory committee note.

20. Insert a summary of the expert's opinion.

finder. The two-question format also serves to emphasize the uniqueness of the opinion portion of the trial, which is one of the goals for the examining lawyer.

3. Reasonable Degree of Certainty

Traditionally, to be admissible in court, an expert's opinion must be one that the expert holds to a reasonable degree of certainty within the expert's profession. The common law rationale for the "reasonable certainty" requirement was that it (1) prevented speculation by the expert and (2) ensured that the expert's opinion was one that was generally accepted within that area of expertise.[21]

Preventing speculation by the expert is necessary, but the court can readily handle the problem by applying a relevance test to the expert's opinion. Thus, the court need not rely on the phrase "reasonable degree of certainty within the expert's profession," which is routinely stated as part of the standard opinion question.

Requiring that the expert's opinion be one that is generally accepted within a particular area of expertise is commonly referred to as the *Frye* standard. This standard originates from the language in *Frye v. United States*.[22] In *Frye* the court held that the test for the admissibility of an expert's opinion is whether the process, system, or theory upon which the expert bases his opinion is "sufficiently established to have gained general acceptance in the particular field in which it belongs."[23] Thus, the *Frye* standard has been used to preclude polygraph evidence and hypnotically refreshed memory.

Rule 702 of the Federal Rules of Evidence, however, does not refer to a "general acceptance" standard, nor does it refer to a "reasonable degree of certainty" standard. Rule 702 requires only that the expert testimony "assist the trier of fact." Some commentators and courts persuasively contend that the silence of Rule 702 on the matter repeals the *Frye* standard and that the present test is based on relevance.[24] Preventing speculation by applying a relevance test and the possible

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21. *See* Tornello v. Deligiannis Bros., 180 F.2d 553 (7th Cir. 1950; Lieberthal v. Glen Falls Indem. Co., 174 F.2d 638 (7th Cir. 1949).

22. 293 F. 1013, 1014 (D.C. Cir. 1923).

23. *Frye*, 293 F. at 1014.

24. *See, e.g.*, State v. Catanese, 362 So. 2d 975 (La. 1979).

demise of the *Frye* standard under the Federal Rules of Evidence may eliminate the need for inclusion of the phrase "to a reasonable degree of certainty within the expert's profession."

In addition to looking at the evidentiary requirements, the examining lawyer should consider trial tactics and persuasion in deciding whether to include the phrase "to a reasonable degree of certainty within the expert's profession" within the opinion question. This language signifies to the fact-finder that the opinion question is different and sets it apart from all other testimony during the trial. Furthermore, the phrase builds up the expert's opinion by making it not solely the individual expert's opinion but enveloping the expert within his entire profession.

If the "reasonable degree of certainty" phrase is used, it should be asked as follows:

> Do you have an opinion (pause) to a reasonable degree of certainty within your profession (pause) as to _____?[25]

4. Hypothetical Question

In some jurisdictions, examining counsel must use a hypothetical question when the expert relies on inadmissible evidence in reaching his opinion. If a hypothetical question is required, this author strongly recommends that each hypothetical question be written out in advance and approved by the court prior to trial.

5. Opinion on an Ultimate Issue

At common law, courts did not permit an expert witness to give an opinion on an ultimate issue in the case, and, strictly applied, this prohibition precluded opinions on ultimate issues of *fact* as well as of law.[26] The underlying rationale for the rule was that an expert, or any other witness, should not be allowed to usurp the function of the jury or the judge by making the decision for the fact-finder.

The ultimate opinion rule at common law prohibited opinions on both ultimate issues of fact and law, and since ultimate issues of fact

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25. Insert the opinion requested.

26. *See* FED. R. EVID. 704 advisory committee note.

necessarily involve corollary and subsidiary issues of fact, both trial lawyers and judges found the rule was very difficult to apply. As was noted by the Advisory Committee on the Federal Rules of Evidence, the "ultimate opinion rule was unduly restrictive, difficult of application, and generally served only to deprive the trier of fact of useful information."[27]

The Federal Rules of Evidence have abolished the Ultimate Opinion Rule. Rule 704 provides: "Opinion On Ultimate Issue— ... [T]estimony in the form of an opinion or inference otherwise admissible is not objectionable because it embraces an ultimate issue to be decided by the trier of fact."[28] Rule 704 implicitly distinguishes between opinions on ultimate issues of fact and ultimate issues of law.[29] Rule 704 requires that an opinion on an ultimate issue must be "otherwise admissible" which means that it must be *helpful to the fact-finder* under Rule 702.[30] Opinions on issues of fact, be they ultimate facts or not, are helpful to the fact-finder in understanding the evidence or deciding a fact in issue. Opinions on matters of law, however, are essentially conclusions on how the case should be decided and therefore are not helpful to the fact-finder in understanding the evidence or deciding a fact in issue.

Thus, under the Federal Rules of Evidence opinions on ultimate facts are permissible while opinions on questions of law are not. For example, whether the defendant was negligent is an opinion on an ultimate issue of law and is not permissible, but an opinion on whether the defendant was exceeding the speed limit is permissible because it is a question of fact. An opinion on whether the testator had the capacity to make a will would be excluded as an ultimate opinion on the law, while an opinion on whether the testator had sufficient mental capacity to know the nature and extent of his property and formulate a rational scheme of distribution is permissible.

Opinions which assist the fact-finder in understanding the evidence or determining *a fact* in issue are permitted under Rule 702 and are

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27. FED. R. EVID. 704 advisory committee note.

28. FED. R. EVID. 704.

29. FED. R. EVID. 704 advisory committee note.

30. According to Rule 702, an expert may testify in the form of an opinion if it "will assist the trier of fact to understand the evidence or to determine a fact in issue." FED. R. EVID. 702.

thereby "otherwise admissible" under Rule 704.[31] Opinions which basically state that the plaintiff or the defendant should win are not helpful to the fact-finder and are therefore not permitted under Rule 702 and 704 of the Federal Rules of Evidence.

G. Touchstone #6: Explanation of Opinion—Teaching

The goal of the explanatory portion of the direct examination is to help the fact-finder understand how the expert arrived at his opinion so that the fact-finder may adopt the opinion as his own. Thus, this section of the examination should focus on educating the fact-finder on the reliability of the opinion and also the credibility of the expert teacher.

The expert should be a teacher and fully elucidate the basis, or underlying facts, and the core thesis and methodology for each opinion.[32] If the expert has given multiple opinions, then each opinion should be explained and taught using the following organizational framework.

1. How the Expert Arrived at his Opinion

The expert should educate the fact-finder by clearly explaining (1) the thesis and methodology used by the expert in reaching the opinion, (2) the expert's investigation and the data relied on by the expert, and (3) the expert's analysis of the data, particularly how the data corresponds to the thesis and the methodology and how they support the opinion.

Topics which should be covered in the expert's explanation of her basis for the opinion are:

(a) Introduction. You have told us your opinion is _____;[33] now let us look at how you arrived at that opinion.
(b) Thesis and Methodology Used.[34]

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31. FED. R. EVID. 704 (authorizing opinions on an ultimate issue).

32. *See supra* Section E for a discussion of the Overview Approach in which the advocate reserves a full explanation of the underlying basis for the expert's opinion until the teaching stage of the examination. Note also Section C(3) of Part II for a discussion of the importance of the expert's core thesis and methodology to the credibility of the opinion.

33. Insert a summary of her opinion.

34. The expert should fully explain the thesis and methodology used to arrive at the opinion.

(1) What thesis/methodology did you use for your investigation and research in this case?
(2) Why did you choose that thesis/methodology?
(3) Is that thesis/methodology customarily used by experts in your field?
(4) Was that the best thesis/methodology for this project? Why?
(5) Clearly and persuasively explain the thesis/methodology used.[35]

(c) Investigation and Data Relied Upon.[36]
(1) What did you do to start your investigation/research for this project?
(2) What were the parameters of your investigation/research?
(3) Explain the investigation and data collection process or what you did to implement the thesis and methodology chosen.
(4) List the data collected *and* relied on by the expert.[37]
(5) If there was data not collected or not relied upon by the expert, explain what it was, and why.
(6) Explain that the data used by the expert was sufficient for the analysis involved in this case.

(d) Analysis of Data. The expert should explain her analysis of the data relied upon and how it interfaces with the thesis and methodology and supports the ultimate opinion.

For each category or type of data relied upon by the expert in reaching an opinion, there should be:
(1) data explanation;
(2) analysis of how the data relates to the expert's thesis and methodology;
(3) analysis of how the data supports the ultimate opinion.[38]

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35. This is a critical element of the teaching process because the fact-finder must understand and adopt the expert's core thesis and methodology as a prerequisite to accepting the expert's opinion.

36. The expert should explain her investigation and the data relied on in reaching her opinion.

37. In order to satisfy Rule 703, point out that this type of data is customarily relied on by experts in this field of expertise. Lawyers typically use charts, graphs, and other visual aids to summarize and present effectively the data relied on by the expert.

38. Lawyers universally rely very heavily on the use of charts, graphs and other visual aids to assist the expert in data explanation and analysis. For lawyers the use of visual aids is an integral part of the teaching process.

(e) Theory Differentiation. Trial Lawyers very strongly believe in the psychological principle of primacy,[39] and therefore, trial lawyers generally present their strongest argument first. It is recommended that the same approach be applied to theory differentiation. Differentiating the opposing expert's theory is an important concept that must be included in the direct examination, and it may seem to logically fit in this portion of the examination. Under the doctrine of primacy, however, it is best to explain and persuade with your expert's theory first, and then in a separate organizational segment to distinguish and differentiate the opposing expert's theory.

2. Assumptions

The assumptions made by an expert witness are critical to the validity of the expert's opinion and the credibility of the expert to the fact-finder. In every case, the expert witness should expect to be cross-examined not only on what the expert did, but more importantly on what the expert did *not* do. The same vigorous cross-examination should be expected on the expert's assumptions, or lack thereof, and how they interface with what the expert did.

In this portion of the direct examination, the expert should very clearly explain:

(a) what assumptions were made;
(b) why those assumptions were made;
(c) how reliable those assumptions are;
(d) what assumptions were *not* made;
(e) why those assumptions were not made;
(f) whether the assumptions made were of the type generally made by experts in that particular field of expertise.

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39. The psychological principle of primacy is that persons will believe and adhere most strongly to their initial beliefs. Trial lawyers have used this psychological principle to form the organizational technique of presenting first their best and most persuasive facts, issues, or argument. Lawyers uniformly refer to this adaptation of the psychological principle of primacy as the "doctrine of primacy."

3. Anticipating Cross-Examination

At some point during the direct examination, the lawyer should anticipate the ensuing cross-examination and make every attempt to deflate it by taking the sting out of it in advance. This section focuses on anticipating the cross-examination that attacks the expert's opinion, as opposed to theory differentiation among competing experts.

Areas which should be anticipated as being covered during cross-examination of the expert witness are:

(a) Credibility of the witness
  (1) technical expertise and qualifications;
  (2) relationship to the party and/or lawyer;
  (3) difficulty in communicating.[40]
(b) Validity of the expert's thesis and methodology
  (1) whether the expert is within his area of expertise;
  (2) integrity of the thesis and methodology within the profession;
  (3) applicability of the thesis and methodology to this fact situation.
(c) Quality of investigation and research
  (1) data collection process and its validity and reliability;
  (2) data relied upon and why;
  (3) data not collected nor analyzed and impact on opinion.
(d) Validity of assumptions
  (1) propriety of each assumption made by the expert;
  (2) reliability of each assumption made by the expert;
  (3) if each assumption was not made, then would the opinion change;
  (4) propriety of assumptions *not* made;
  (5) reliability of assumptions *not* made;
  (6) if any of these assumptions were made, then that would change the expert's opinion;
(e) Prior writings and/or testimony. Does the expert have any prior writings and/or courtroom testimony which relate in any way to this case?

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40. Scientist/technical person and not a public speaker, researcher not an actor, or little experience in testifying and therefore nervous.

To the extent that the expert witness has a valid and defensible opinion, all of the above areas of potential cross-examination can be effectively handled during the direct examination by placing them in their proper contextual framework and thereby diffusing the ensuing cross-examination.

4. Theory Differentiation

If the opposing party has retained its own expert witness, it is essential, at some point during the direct examination of that expert witness, that the examining attorney differentiate and attack the theory underlying the opposing expert's opinion. This process is referred to as Theory Differentiation, and it is a critical part of presenting persuasive and effective expert testimony. The fact-finder will believe the expert who presents the most persuasive "theory" supporting his opinion. For purposes of this discussion, "theory" is used in an expansive sense to encompass the thesis and methodology chosen by the expert, the expert's investigation and data analysis, and the assumptions made by the expert.

Theory differentiation requires a clear and careful analysis of the two competing expert opinions, and the underlying basis for each, in order to determine:

(a) how they are similar;
(b) where they diverge;
(c) the rationale for the divergence;
(d) a method to attack and discredit the divergences.

This theory differentiation process requires perspicacious preparation and clear, lucid presentation by both the lawyer and the expert. Thus, the lawyer and the expert must work closely together in this critical part of the examination.

In conducting this theory differentiation analysis as a means for exposing the flaws in the opposing expert's theory, the lawyer and the expert should examine the opposing expert's anticipated testimony as follows:

(a) opinion—why it is flawed and why ours is better;
(b) thesis and methodology—why it is flawed and why ours is better;

(c) investigation and research—why it is flawed and why ours is better;
(d) data relied upon—why it is flawed and why ours is better;
(e) data not analyzed and what expert did not do—why it is flawed and why ours is better;
(f) analysis of data—why it is flawed and why ours is better;
(g) assumptions made and not made—why it is flawed and why ours is better;
(h) prior writings or testimony by the expert—can they be used against the expert's analysis in this case.

The structure of the trial suggests that the plaintiff's expert witness should explain the theory differentiation at the end of the testimony. The defendant's expert witness, however, might be better off making this explanation immediately following the qualifications but before presenting his own opinion and methodology. Ultimately this decision is a matter of judgment. As a result, the decision will depend upon many factors, including the experience level of both the examining lawyer and the expert witness. Experienced trial counsel and experienced experts are capable of handling the testimony and the structure in an unconventional manner.

5. Most Persuasive Rationale/Basis for Opinion

When possible, an effective advocate will "start strong and end strong." Thus, the expert's explanation of his opinion should end on a high note. To conclude his explanation of the opinion, the expert should state the principal reasons why he is confident of his opinion, including the underlying thesis and methodology, investigation and research, data analysis and assumptions. To be persuasive and effective, this concluding rationale must be a precise and succinct synthesis and not simply a re-stating of prior testimony.

A question with which to introduce the concluding rationale for the expert's opinion is: "You have given us your opinion that (insert a summary of the opinion), why are you so confident of that opinion?"

6. Go to Next Opinion and Follow Same Outline

It is quite common for an expert to give more than one opinion in a case. For example, most experts usually give an opinion on the condition of a person, business, or object and also an opinion on causation for what happened to the person, business, or object. Typically, when a medical expert witness testifies about an injury to a person, the expert has four opinions—diagnosis, condition, causation, and prognosis. If the expert has more than one opinion, the examining attorney should proceed to the next opinion and use the same outline for explaining that opinion.

H. Touchstone #7: Conclusion—End Strong

As noted earlier, whenever possible, an examination should start strong and end strong. Thus, the direct examination of an expert witness must end on a high note.[41] If the expert has given more than one opinion, then the entire direct examination should conclude on a high note with a review of the expert's most significant contribution to the case and the most persuasive rationale and basis for the expert's opinions.

I. Pre-Trial Preparation

Although the seven touchstones for expert witnesses have been presented in the framework of a direct examination at trial, they can be effectively applied only through careful and diligent pre-trial preparation. This is analogous to the process undertaken by a skilled trial advocate who can give the closing argument on the key elements in the case before preparing the cross-examinations at trial.

After the direct examination has been prepared and rehearsed once, the attorney and the expert should continue to rehearse within the constraints of the litigation budget and the importance of the case. The direct examination should be practiced to reduce the likelihood of

41. If the expert has given only one opinion, see Section G(5), *supra*, for a concluding rationale that will end the examination on a high note.

unwelcome surprises and to ensure that the examination does, in fact, accomplish its goal of educating the fact-finder.

When practicing the direct examination of an expert witness, it is important to make it as realistic as possible. The advocate should bring in two unassociated lawyers to serve as the judge and the cross-examining lawyer. The objective here is to simulate as closely as possible the reality of the court room. After the practice examination, all parties involved should hold a comprehensive review of the session with the expert. Some lawyers are videotaping such practice examinations and then having the expert view it to see how she appears and how she communicates and to evaluate the persuasiveness of the substance of the testimony. A picture *is* worth a thousand words, and the videotape has proven to be a very effective means of preparing expert witnesses for their testimony at trial.

In sum, practice makes perfect and the preparation should be commensurate with the complexity of the case.

Many trial lawyers develop their own personal trial notebook as a means to compile and codify their experience. Trial lawyering is a constant learning experience and the trial notebook is an excellent way to preserve that experience for future reference. A summary of the seven touchstones is set forth in Appendix II so that all or a portion of them may be integrated into a trial notebook.

II. Primer on Expert Witnesses

A. Case Analysis

The first step in the process of presenting expert testimony is to determine whether to use an expert witness in the case. In making this determination, the advocate should initially undertake a rigorous analysis of the case. The type of case analysis discussed in this paper is limited to that pertaining to the use of expert witnesses.

1. Macro Case Analysis

(a) Ultimate Request for Relief

When engaging in case analysis pertaining to the use of an expert witness, the first step is to look at the request for relief in the complaint

or the denials or affirmative defenses in the answer. What does the advocate ultimately want in this case, or, stated differently, what is the best case scenario for winning? In conducting a macro case analysis of what the advocate wants in the request for relief or defense, the questions to pose are: (1) Is an expert witness absolutely necessary? (2) Will an expert witness be of some assistance to the fact-finder? or (3) Is an expert witness not necessary?

(b) Issues in the Case

The advocate should examine the issues in the case through an analysis of the causes of action or claims for relief and the affirmative defenses in the case. In conducting this case analysis, the advocate should diagram the elements of each cause of action and defense. Once again, the same three questions arise: (1) Is an expert witness absolutely necessary? (2) Will an expert witness be of some assistance to the fact-finder? or (3) Is an expert witness not needed?[42]

An example of this case analysis process in a toxic tort case is: (1) an expert is absolutely necessary in determining causation; (2) an expert may be of some assistance in determining the damages to the plaintiff; and (3) an expert may be needed on the issue of the duty owed by the defendant to the plaintiff because of human factors and/or industry standards.

Another example is a claim for damages in a construction cost overrun case: (1) expert testimony may be absolutely necessary on the issue of the cause for the cost overrun; (2) expert testimony will be of some assistance to the fact-finder in determining the total amount of costs incurred by the assistance to the fact-finder on the interpretation of terms

42. An example of this case analysis process in a toxic tort case is: (a) an expert is absolutely necessary in determining causation; (b) an expert witness may be of some assistance in determining the damages to the plaintiff; and (c) an expert witness may be needed on the issue of the duty owed by the defendant to the plaintiff because of human factors and/or industry standards.

Another example is a claim for damages in a construction cost overrun case: (a) expert testimony may be absolutely necessary on the issue of the cause for the cost overrun; (b) expert testimony will be of some assistance to the fact-finder in determining the total amount of costs incurred by the plaintiff during the overrun; (c) expert testimony may or may not be of assistance to the fact-finder on the interpretation of terms of the contract; and (d) expert testimony is not necessary nor will it be permitted on the legal duties and responsibilities of each party under the contract.

of the contract; and (3) expert testimony is not necessary nor will it be permitted on the legal duties and responsibilities of each party under the contract.

In criminal cases, identification is an essential element of the crime, and expert testimony is absolutely necessary to interpret fingerprints, voiceprints, DNA testing, and other forensic tests. Furthermore, some courts have permitted expert testimony on whether the eyewitness had the ability to perceive and identify the defendant.

2. Micro Case Analysis

(a) Issues and Sub-Issues

When examining each element in a cause of action or defense, the advocate should analyze all of the issues and sub-issues within each element to determine whether expert testimony is necessary, helpful, or unneeded. Within this process, the advocate should also look at how the various issues and sub-issues are related and whether expert testimony is needed or helpful in assisting the fact-finder in understanding the relationship among the various issues. For example, in a toxic tort case, expert testimony is needed to show (1) that substances within the defendant's control contaminated the soil in a particular area, (2) how the ground water passing through the soil became contaminated, (3) how the contaminated ground water came in contact with the plaintiff's person or property, and then finally (4) what damages were caused by the toxic substance as it passed through the environmental chain. Persuasive expert testimony is essential for all of these issues, sub-issues, and their interrelationship.

(b) Facts in the Case

Certain facts in a case may be of such a technical or specialized nature that a lay person cannot readily understand them, and, thus, expert testimony is permitted to assist the fact-finder.[43] In addition to technical

43. Examples are scientific or technical terms within the prior art in a patent case or a licensing agreement, slang or words of art in drug deals or other criminal activities, and terms

terms, there may be a collection of facts that require technical or specialized knowledge for their interpretation.[44] Depending on the circumstances, expert testimony may be absolutely necessary or may simply be helpful to the fact-finder in understanding the evidence or deciding an issue in the case.

3. Overview of Case Analysis Pertaining to Expert Witnesses

Under Rule 702 of the Federal Rules of Evidence, testimony by an expert witness is admissible "if scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue."[45] The focus of Rule 702 is to "assist the trier of fact," and the scope of the rule is to permit expert testimony whenever it "will assist the trier of fact to understand the evidence *or* to determine a fact in issue."[46] Rule 702 provides very broad authorization for the use of expert testimony, and today trial lawyers are making imaginative and innovative use of expert testimony. Case analysis relating to the use of experts is now a critical part of the pre-trial process.

Although a careful and thorough analysis of the need for expert testimony is necessary, the effective and responsible advocate must always concentrate on an overall analysis of the case. As the old maxim goes, do not get so lost in the trees that you cannot see the forest. The advocate should undertake a comprehensive analysis of the case to determine the "cutting edges" in the case. The "cutting edges" that most significantly affect the ultimate decision in the case can be issues, sub-issues or facts. The question, "What aspects of the case will be the 'cutting edges' upon which the case will turn and ultimately be decided?", must be asked repeatedly throughout the preparation of the case. The advocate should thoroughly analyze all of the facts and issues to find the "cutting edges" for a particular case.

Good lawyering skills, resulting in staying within the litigation budget and the fostering of judicial economy, require the advocate to concentrate

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or words of art used in commercial or business transactions.

44. Examples are industry customs in product liability or business cases and a series of activities viewed as a whole in gambling or other criminal enterprises.

45. FED. R. EVID. 702.

46. *Id.*

the use of expert testimony on those facts and issues that are the "cutting edges" in the case. The only exception may be when the use of expert testimony in either the preparation-stage or the trial-stage may make a contested fact or issue into an undisputed fact or issue that will ultimately save money and foster judicial economy.

B. Retaining an Expert Witness

Each case is unique, and the ability of an expert witness to provide assistance relating to the particular facts and issues in a case must be of paramount concern in the selection process. The zealous advocate should not choose a particular expert just because he has done research in the field or has testified in a similar case. He must conduct an analysis of his needs and the expert's ability to meet those needs. The advocate can apply the case analysis techniques discussed earlier to the process of selecting an expert witness for the case. The following factors should be examined in the process of retaining the best expert.

1. Do You Need an Expert?

Expert testimony necessarily involves scientific, technical, or specialized knowledge that is outside the lawyer's sphere of expertise. Sometimes expert testimony is needed in a case. and the lawyer does not know it. Likewise, sometimes the lawyer thinks that expert testimony is needed when it is not.

Assuming that the lawyer has conducted a case analysis on the need for expert testimony in his case, the process should be taken one step further. The advocate should consult with an expert in the field to determine if expert testimony is needed in his case. Sometimes the lawyer needs to consult with an expert to know what he wants. Early in the case, the attorney can meet with an expert on an informal and preliminary basis to review the facts and issues of the case and then later receive his advice and assistance on how best to proceed with regard to expert testimony. This initial meeting with an expert need not be expensive or unduly time consuming. The client may have an expert within the company which can be used, or if not, the client may know or have a relationship with an outside expert.[47]

47. For example, consider a lawsuit for business losses from a breach of contract. Lay

For example, consider a lawsuit for business losses from a breach of contract. The business losses may be proven by laypersons within the company, profit and loss statements, and the balance sheet, but the controller should also be interviewed to determine that all of the areas of damage are taken into account. The controller is an expert in accounting and financial dealings and may prove to be a very valuable resource to explain aspects of the case and to ensure that all the areas of damages are analyzed. The controller may also lead you to an outside financial consultant who has a specialized area of expertise in damage and loss analysis.

In some bigger cases, experts are retained solely for the purpose of providing litigation consulting and advice to the lawyers on the management of the lawsuit. A litigation consultant can work freely and independently with a lawyer to provide expert analysis during the preparation, planning, and trial stage of the lawsuit. The consulting expert will not testify at trial, and all of the expert's work with the lawyer is considered part of the lawyer's work product and therefore not discoverable.[48] Thus, there will be two sets of experts—a litigation consulting expert and a trial testifying expert. The value and effectiveness of such an arrangement will depend upon the nature of the lawsuit, the potential financial impact, and the costs in retaining the experts.

2. Finding an Expert

Once the attorney determines that an expert is needed in a particular area, the next step in the process is to find the best expert for the particular case. There is a skill involved in finding experts, particularly the most appropriate expert for the case. That skill is developed and refined through experience and the use of investigative techniques. It

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persons within the company may prove business losses with profit and loss statements and the balance sheet. Nevertheless, the controller should also be interviewed to determine that all of the areas of damage are taken into account. The controller is an expert in accounting and financial dealings and may be a very valuable resource to explain aspects of the case and also to ensure that all the areas of damages are analyzed. The controller may also lead one to an outside financial consultant who has a specialized area of expertise in damage and loss analyses.

48. Counsel should be aware, however, that an exception has evolved to the rule prohibiting discovery of a non-testifying expert's work. It is a narrow exception that must meet a two-pronged test of (a) extraordinary need by the opponent and (b) unavailability of the information through other means.

is a very valuable skill and should be honed and developed throughout the attorney's legal career.

When searching for an expert, the advocate should investigate the following sources:

(a) The Client. Although the advocate may not want his client's employees or associates testifying in the case, they may be a ready source for contacting experts outside of the organization.
(b) The Law Firm. Most litigation law firms have developed a wealth of experience with regard to experts which should be tapped.
(c) Other Lawyers Within the Practice Area. Through this source the attorney may receive names of experts and also information on how they performed in other cases.
(d) Surveying the Literature in a Particular Area of Expertise
(e) Universities
(f) Research Institutes and Laboratories
(g) Professional Organization for that Particular Area of Expertise
(h) Consulting Group. Some experts have formed consulting groups to assist lawyers in litigation.
(i) Imagination and Investigation. The sources for finding experts are limited only by a lawyer's imagination and investigative skills. If the advocate is having trouble finding the appropriate expert, he should use his imagination and stretch himself to think of possible new sources for an expert.

3. Selecting the Best Expert

In some litigation settings, there is no choice as to who the expert will be because the expert essentially comes along with the litigation. Examples of the "no-choice" expert situations are:

(a) a person is injured, is treated by a physician at the hospital and the treating physician will be an expert on plaintiff's damages;
(b) the designer of a product that is now subject to a dispute;
(c) in-house financial person in business cases;
(d) examining psychiatrist in criminal cases and other forensic experts for the government in criminal cases;
(e) court appointed experts.

In most litigation settings, however, the lawyer can choose the expert witness who will testify in the case. Assuming that the lawyer has done a thorough search of the candidates, there will then be a pool of experts to choose from, and the next step in the process is to select the best possible expert for the case.

Selection of the expert is one of the most important parts of the case, because an expert's testimony at trial can often be determinative of the outcome of the case. Selecting an expert should be a thoughtful and careful process; the time spent at this stage of the case is well worth it and if the selection is carefully done, it will pay many dividends in case preparation and at trial.

There are six factors to consider in the process of selecting the best expert for a particular case.

(a) Technical Expertise

First and foremost, the expert should be an expert by qualifications, education, training, and experience. The person should have excellent credentials and the respect of his peers. Furthermore, the expert's training and experience should have a relationship or nexus to the facts in the particular case, in order for the expert's qualifications to be tied into the particular case.

Professional writings add to the witness's credentials, but they are also available to the opponent for cross-examination. The attorney should undertake careful review of the witness's professional writings to determine if the witness's expertise fits the area in question and to ensure that the prior writings do not provide too much ammunition for cross-examination.

The technical expertise of a potential expert is the most basic element in the selection process. Ultimately, at trial the validity and persuasiveness of the expert's opinion will be a function of the expert's technical expertise and competence. To get a good opinion that will withstand the rigors of litigation, the advocate must have good expertise at the beginning of the process.

(b) Open Minded and Independent

For litigation purposes, one of the essential elements of a good expert is an open mind and a willingness to conduct an independent investigation. Although the lawyer in the case is an advocate, the expert should not be.

When initially contacted, the expert should be open minded about the case and should insist that she have the opportunity to conduct the investigation and research freely and independently. If the investigation and research is conducted thoroughly and independently, the expert's opinion will have a much better chance of holding up during the rigors of the litigation process, particularly cross-examination at trial.

To ensure an open, thorough and independent examination by the expert, the lawyer should *not* give the expert pre-conceived notions, ideas, or opinions, and most certainly should not ask for a particular result. The expert should look at the facts freely and independently and then give the attorney the benefit of his expertise. Giving the expert marching orders to arrive at a given result will preclude objectivity and independence and will ultimately be a liability at trial.

If, after a thorough and independent investigation, the expert's opinion helps the case, the lawyer has a very powerful and effective opinion to use at trial. If, however, the expert's opinion does not help the case, or even worse hurts the case, the lawyer does not use the expert to testify at trial, and the expert's damaging opinion is kept secure within the lawyer's work product. Expert advice and opinion given solely to a lawyer is considered to be part of the lawyer's work product and is usually not discoverable.[49] Information pertaining to an expert becomes discoverable only when the expert is expected to testify at trial.

(c) Communication Skills

Although the independence, integrity, and strength of the expert's opinion is critical, the value of the opinion is diminished significantly if the expert cannot effectively communicate it to the fact-finder at trial. The expert must be technically competent but also a teacher. The role

49. *See supra* note 38.

of the expert is to educate, and an educator must have sufficient communication skills. The expert's communication skills play a major role in three distinct areas: the ability to educate the lawyer, to educate the fact-finder, and to withstand cross-examination.

In addition to preparing an opinion, one of the expert's primary roles is to educate the trial lawyer in the technical areas in the case. The trial lawyer must become completely conversant with the technical aspects of the case, and the expert is the teacher. After the trial lawyer is educated on the technical aspects, the expert should also assist the lawyer in preparing for cross-examination of the opponent's expert. This process of educating the trial lawyer requires that the expert have a basic level of communication skills and some teaching skills. If not, it will be a frustrating experience for both the expert and the lawyer.

At trial the expert must use basic communication skills to educate the fact-finder on the validity of the expert's opinion and also to withstand the attack on her opinion during cross-examination. A simple recitation of the expert's opinion is not helpful to the fact-finder as she may simply reject the opinion on its face. The expert must explain and elucidate the opinion so that when the expert is finished, the fact-finder understands the basis and rationale for the opinion as well as the expert does. That is effective communication.

On cross-examination, the expert must communicate with both the cross-examining lawyer and the fact-finder. When being tested by the cross-examiner, the expert must be able to communicate the underlying basis and rationale for the opinion and show that he considered all the necessary factors in reaching the opinion. The expert cannot become rattled, nervous, or unsure of herself because of a discomfort with the communication process. Any such negative communication traits will almost certainly taint the expert's opinion. Thus, to be an effective and persuasive expert witness at trial, the expert must have both technical competence and acceptable communication skills.

(d) Prior Litigation/Courtroom Experience

There are several factors to consider when evaluating the prior litigation and courtroom experience of a potential expert witness. Some experts suffer from the "professional witness syndrome." Others, however, appear

on the stand as forthright or naively charming and persuasive. Still others are consumed by terror when they testify. It is essential for the advocate to evaluate the expert's manner. All of these traits have been seen in individual expert witnesses, and the likelihood of any one of the traits appearing in a witness should be very seriously evaluated.

Although prior courtroom experience is helpful in making a witness feel comfortable in the courtroom, it should not be conclusive in the selection process. Some witnesses testify so much that they become professional witnesses. While some professional witnesses are very effective, even after hundreds of appearances, others become too comfortable in the courtroom, and they become adversaries rather than independent experts. The inappropriate "professional witness syndrome" describes the expert who has become so comfortable that he slacks off on the preparation, appears over confident or flippant in the courtroom and seems to enjoy sparring with the lawyer on cross-examination. None of these traits enhance the credibility of the expert to the fact-finder.

On the other hand, an expert witness who is testifying for the first time may turn out to be the best possible expert. The expert prepares rigorously, and the lawyer prepares the witness even more rigorously. Furthermore, the witness has a certain apprehension and naivete in the courtroom that can enhance the credibility of the witness. However, another witness with substantial courtroom experience can have the same persuasive traits. Each expert, therefore, must be evaluated independently, and the critical question is not prior courtroom experience, but rather the validity and strength of the expert's opinion and the expert's ability to communicate and teach.

Finally, if a potential expert witness has testified in prior cases, the advocate will benefit by obtaining the names of the lawyers involved in the case and, if possible, a transcript of the examination at trial, particularly the cross-examination. The lawyers in the other cases may be consulted to obtain information on the strengths and weaknesses of the witness as well as information on how the witness reacts at trial. The transcript of the trial examination is a dry record, which does not clearly depict the credibility of the witness's performance. However, it will give the lawyer an idea of how the expert handled questions at trial.

(e) Cost

One of the factors to consider in selecting an expert is cost. Each case has a litigation budget which may be the controlling factor in the final selection of an expert witness. For example, the preeminent expert in the field for the particular case may be a great distance from the attorney's office and the trial site, thereby making travel costs prohibitive.

(f) In-House Versus Outside Experts

Corporate clients usually have experts within the organization. In-house experts are easy to locate, readily accessible and usually too willing to please their boss, the corporate client. Although in-house experts can be used effectively on factual matters, they should not be used for opinions which significantly affect the outcome of the case. In-house experts are too closely tied to one of the parties, and this relationship severely impairs their credibility.

For critical issues in the case, the in-house experts can be used to assist the lawyer in understanding the case, finding a suitable outside expert, and assisting in the preparation of the case for trial. Retaining an outside expert lends credibility to the expert's opinion and also provides an external and independent look at the operations of the company pertaining to the areas involved in the lawsuit. The independence of the outside expert is almost always worth the extra cost involved.

These six factors should aid the trial lawyer in selecting the best possible expert for each individual case. The expert's technical expertise and ability to communicate are the most important attributes of an expert witness, but all six of the factors must be considered in the final selection process.

C. Five Keys for Presenting Expert Testimony

Award winning plays do not just happen. Likewise, effective and persuasive expert testimony does not just happen at trial, even with a brilliant expert and a brilliant lawyer. The five key elements that are always present when expert testimony is effective and persuasive at trial are: (1) pre-trial preparation, (2) the expert's technical expertise

and specialized knowledge, (3) the quality of the expert's opinion, (4) the organization of the expert testimony, and (5) the expert's ability to educate the fact-finder.

1. Pre-Trial Preparation

After the advocate has conducted a thorough case analysis to determine whether expert testimony is needed, on which issues, and after the appropriate expert has been retained, the advocate must work with the expert to prepare the case for trial. The pre-trial preparation process with an expert witness can be broadly categorized into six distinct areas. This analytical framework should assist the lawyer in the preparation process and may also encourage the experienced lawyer to develop and refine these categories and, perhaps, add new ones.

(a) Assignment

The lawyer informs the expert of the assignment and supplies the expert with the information necessary for the expert to conduct the investigation. The lawyer should also inform the expert of the scope of the assignment and the specific matters to be investigated. At this stage of the working relationship, the lawyer should provide only broad guidelines to the expert so that the expert has the freedom to conduct a thorough and independent investigation. The lawyer's assignment to the expert should not be so narrow that it cuts off a potential source of valuable information, nor should it be so broad that it does not provide sufficient guidance to the expert. It is anticipated that the lawyer and expert will meet frequently to refine the scope of the investigation, exchange materials and background information and discuss legal issues.

(b) Independent Investigation

After receiving the assignment, the expert should conduct a completely independent investigation without any preconceived notions as to the result. At this stage of the preparation, the lawyer should be careful not to require, implicitly or explicitly, the expert to reach a certain conclusion. To withstand the rigors and test of the litigation process,

it is important that the expert's initial investigation be as thorough and independent as possible.

(c) Lawyer Educates Expert

After the expert has conducted an initial investigation, he provides the lawyer with his preliminary analysis and conclusions. The lawyer then thoroughly discusses the legal ramifications with the expert. The lawyer educates the expert on the legal issues and the legal requirements for the data, analysis, and conclusions.

(d) Expert Educates the Lawyer

In the working relationship between the lawyer and the expert, the expert also educates the lawyer on the technical matters involved in the case. The lawyer needs to know the technical matters in order to understand the case better and prepare a cross-examination of the opponent's expert. The lawyer must become completely conversant with the technical information and, for the purposes of the narrow confines of a particular case, become an expert in his own right. Trial lawyers are often referred to as having "bathtub minds." A lawyer becomes involved in a case concerning expert engineers and learns everything there is to know about that particular area of engineering; the bathtub is filled. The case is tried, and with time the information slowly drains away leaving a ring of technical expertise for future cases or cocktail discussions.

(e) Lawyer and Expert Work Together

The lawyer and expert must work together to organize the follow-up investigation and research, to analyze the data, and to refine the opinion. The expert's work must be analyzed and re-analyzed, examined and cross-examined, in order to present persuasively the expert's opinion and the underlying basis for that opinion and to survive the rigors of cross-examination.

(f) Final Trial Preparation

After the lawyer and the expert have worked together analyzing the data and refining the opinion, the expert's investigation and research is completed, and it is time to prepare the expert for trial. The final trial preparation for the expert should revolve around the seven touchstones discussed in Part I above.

An experienced trial lawyer has described trial work as preparation, preparation, preparation, with a little time in court. Expert testimony which is both helpful and persuasive for the fact-finder must be carefully and painstakingly prepared and presented in a clear and cogent fashion. That just does not happen by itself; it takes long hours of careful preparation.

2. The Expert's Technical Expertise/Specialized Knowledge

An expert's technical expertise or specialized knowledge is the central element qualifying the person to be an expert witness at trial. The expert witness is only as valuable to the case as the expert's technical expertise or specialized knowledge. It is imperative that the expert witness has sufficient qualifications and experience in the specialized area in which he is testifying. The expert's qualifications and experience are the foundation upon which the expert's investigation, research, and opinion are judged. Furthermore, the expert's technical expertise, qualifications, and experience are relevant to the credibility of the witness, and they are significant factors for the fact-finder to evaluate in determining the credibility of the expert witness.

Having retained an expert with technical expertise or specialized knowledge within a specific area, it is essential that the expert's work in the case remain within the scope of the expert's field of expertise. The advocate must avoid the temptation to allow the expert stray from his area of expertise and never specifically ask the expert to perform work or prepare an opinion outside the expert's specific area of expertise.

At times it may be very tempting for an attorney to allow his expert to stray from the narrow confines of his own expertise because he is already working on the case and knows everything about it and because the new area is closely related to his field of expertise. Even if the expert

feels confident handling a matter technically outside his area of expertise, the attorney must require him to stay within his proficiency. The possible efficiency of having the expert work on additional matters is not worth the risk of potential damage to the case in either pre-trial preparation or on cross-examination at trial. Every time an expert strays outside his field of expertise, the pre-trial preparation loses quality, the expert is not as comfortable with the material at trial, and the cross-examination can be potentially devastating. A predictable maxim of litigation is that whenever an expert strays outside of his area of expertise, it almost always results in failure at trial. Moreover, the expert's failure in a tangential area can taint *all* of the expert's opinions and work in the case.

3. The Quality of the Expert's Opinion

"Garbage in and garbage out." The first principle with regard to expert testimony is that the quality of an expert's opinion is directly proportional to the quality of her investigation and research. If the expert does quality work, then she will produce a quality opinion.

The major focus with regard to the quality of an expert's opinion should be the expert's thesis and methodology. Every opinion has a thesis and a methodology as its base. An expert's testimony will be persuasive if her thesis and methodology are valid and are also understood and believed by the fact-finder.

The facts, figures, tests, or other data and the expert's analysis leading up to the opinion are but appurtenances which develop the core thesis and the methodology underlying the opinion. The advocate wants the fact-finder to accept the result of the expert's work. To achieve that goal, the advocate must persuade the fact-finder of the validity of the thesis and the methodology on which expert bases her opinion. An analysis of the expert's core thesis and the methodology employed is also useful when cross-examining the opponent's expert. The zealous advocate should "go for the jugular" by preparing the cross-examination to attack the opposing expert's thesis and methodology. If other factors in the expert's opinion need to be included in the cross-examination of an expert witness, they can be more readily handled on cross-

examination within a structure or framework in which the primary attack is on the expert's core thesis and methodology.

The importance of the core thesis and methodology for an expert's opinion is seen most clearly in cases where there is a battle of experts. The ultimate resolution of the conflict between the experts usually depends upon thesis and methodology differentiation. How is one expert's thesis and methodology different from the other expert's and which expert will be believed by the fact-finder?

An example of an expert's core thesis and methodology, as it relates to the quality of the expert's opinion and also the process of theory differentiation, is illustrated in the hypothetical *Pierce Electric v. Smith Construction Co.* case file. The *Pierce Electric Co.* case is a lawsuit over damages caused by a large construction cost-overrun. The cost-overrun is admitted, and the issue for the fact-finder is the determination of damages owed to the plaintiff because of the overrun.

The plaintiff's financial analyst uses a "total cost" approach as its core thesis and methodology to arrive at a total damage calculation, while the defendant's financial analyst uses a "specific cost itemization" approach. In this case, the underlying data, calculations, and analysis by each party's accountants is not significant because they are only a product of the expert's choice of approach, thesis, or methodology. The key factor in this case is theory differentiation. How the underlying theories differ and which is more credible are essential questions for the lawyer to consider.

Another example of the importance of the expert's thesis or methodology and the technique of theory differentiation is a case involving damages resulting from a breach of contract. An operator of vending stations has a contract with a state to provide and maintain vending machines at rest-stops along the state's roadways. The State breaches the contract, and now the question is the amount of damages suffered by the vending operator during the remaining period of the contract. Experts for both the vending operator and the state present opinions on the total amount of damages. The plaintiff's expert estimates damages at $1.2 million, while the defendant's expert reaches a figure of $160,000. The core thesis and methodology of the plaintiff's expert is a "revenue per vending station" approach. The defendant's expert, however, uses a "revenue per mile" approach. The resolution of the

case by the fact-finder depends on which expert's core thesis and methodology is most credible and the process of theory differentiation between the two experts. Thus, one of the essential tasks for presenting effective and persuasive expert testimony is for the lawyer to analyze and organize carefully the preparation around the expert's core thesis and methodology. Theory differentiation and an analysis of the expert's theory are critical for both the direct examination of the expert and the cross-examination of the opponent's expert.

4. The Organization of the Expert Testimony

The lawyer has the best expert for the case; the expert's technical expertise and specialized knowledge is superb; the expert has conducted a thorough and careful investigation; and the expert's opinion is first-rate. The lawyer, however, is not yet ready for the direct examination of the expert witness at trial. The lawyer must now carefully organize the expert's testimony to ensure that the expert not only discloses the opinion to the fact-finder, but also educates and persuades the fact-finder. Effective and persuasive expert testimony does not just happen, even with a brilliant lawyer and a brilliant expert. The expert's testimony must capture the audience. The examination cannot accomplish this task by sailing over the fact-finder's capabilities to absorb the technical data or specialized knowledge. Good organization establishes the way for the *fact-finder* to reach the desired result, rather than leaving it to the innate abilities of the expert to explain her work and opinions. Without proper organization, the fact-finder will become mired in technical data and specialized knowledge.

The lawyer must organize the expert's testimony to educate the jury by starting with basic concepts and building on them until the fact-finder can readily understand the expert's opinion. Organization and explanation are essential to educating the fact-finder and persuading the fact-finder to adopt the expert's opinion.

Based on this author's experience, the test of a successful direct examination is to view the expert's testimony from the perspective of the fact-finder. The fact-finder has neither technical expertise nor specialized knowledge like the expert. She has not lived with the case or thoroughly understood it like the lawyer, but she must make a decision

based upon what he hears and sees in the courtroom. The expert and the lawyer should not condescend to the fact-finder; rather, they should begin with basics and build upon them. Even a modest level of technical expertise or specialized knowledge should not be assumed. The lawyer and the expert should concentrate on raising the fact-finder's level of understanding through the education process. How information is presented in terms of organization and structure significantly affects the fact-finder's ability to comprehend and understand.

The following examples of the direct examination of an expert witness demonstrate different organizational structures and persuasiveness from the perspective of the fact-finder. In the first example, the lawyer qualifies the witness as an expert in his particular area of expertise; the court accepts the witness as an expert in that field; and then the lawyer tenders the expert's written report.[50] The organization in this instance is very simple and straightforward—qualify the expert, offer the report and then let the fact-finder sort it out. The quality of the result in this instance will probably be directly proportional to the quality of the organization and explanation.

In a second example, the lawyer qualifies the witness as an expert in her particular area of expertise; the court accepts the witness as an expert; the lawyer offers the expert's written report into evidence and then asks the expert to explain his research and findings. This inevitably results in a long, rambling, and disjointed discourse by the expert. The testimony is not organized to educate and explain. The judge mentally gives up, and either stops paying attention or forces the examination to a halt. The judge is essentially in the same position as having just received the report, with the exception that the judge's time has been wasted. Maybe this is why simply offering the expert's report and getting on with the trial has received some support.

In the third example, the lawyer qualifies the witness as an expert in his particular field of expertise; the court receives the witness as an expert; the expert explains what he did in the case in terms of his investigation and research; the expert introduces basic concepts on the core thesis involved in the expert's approach; the expert explains and

50. In the United States and some other common law jurisdictions, the report is not accepted as evidence; it is only the expert's oral testimony of her opinion that is evidence in the case.

clarifies the methodology used; and finally the expert explains his opinion. The examination is organized to educate and persuade the fact-finder. There are many examples of an organization that will effectively educate and persuade. The key element is that the lawyer wants it to be organized, takes the time to organize it and has the discipline to implement the organization with the expert at trial. Critical to an effective organization of the direct examination is the importance of concepts as opposed to details. The advocate must stress concepts and minimize details.[51]

5. The Expert's Ability to Educate the Fact-Finder

Assuming that the expert's and the lawyer's pre-trial preparation has been thorough and careful, that the expert has the requisite technical expertise or specialized knowledge, that the expert's opinion is valid, and that the expert's testimony at trial has been carefully organized and structured in a framework to persuade, the attorney must then concentrate on the final mode of trial preparation: preparing the expert to educate the fact-finder. The expert's primary role at trial is to educate the fact-finder so that the expert's opinion with the advocate's help will persuade the fact-finder to reach the desired result.

Thus, in preparing the expert for her trial testimony, the lawyer should focus on educational concepts and view it from the perspective of the student rather than the teacher. The goal is to assist and help the fact-finder. Therefore, the focus should be on the needs of the fact-finder rather than the needs of the expert.

Conclusion

When preparing the trial testimony with the expert witness, the advocate must keep in mind the educational process, reflecting upon things which he has learned from the educational process, particularly those teaching/learning techniques that were helpful and those that were not. Every lawyer has been through an educational process which included

51. A sample organizational structure for the direct examination of an expert witness is presented in Part I of this paper entitled the "Seven Touchstones for the Direct Examination of an Expert Witness."

some great teachers, good teachers and poor teachers. In those courses with bad teachers, some students learn, and some do not. The amount of learning by the students depends upon each person's work ethic, interest and intelligence. In the fact-finding process at trial some judges work hard, some do not, and some cannot because of time pressure. Some judges may be particularly interested in the case, and some may not. Some judges are bright, some are not and most are somewhere in the spectrum in between. The same analysis is true for jurors in a jury trial and, although they might not be as bright as the judge, there are more of them. The quality of teaching does affect the learning process, and judges and juries are no different than students when it comes to understanding and comprehending expert testimony. In presenting expert testimony, the advocate has the duty to educate the fact-finder on his expert's opinion and, thus, the advocate cannot responsibly leave the educational process solely to chance. He must plan and carefully prepare the testimony so that it does, in fact, educate and persuade the fact-finder.

Appendix I

Federal Rules of Evidence Pertaining to Expert Testimony*

Rule 702. Testimony by Experts

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

Rule 703. Bases of Opinion Testimony by Experts

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.

Rule 704. Opinion on Ultimate Issue

(a) Except as provided in subdivision (b), testimony in the form of an opinion or inference otherwise admissible is not objectionable because it embraces an ultimate issue to be decided by the trier of fact.

(b) No expert witness testifying with respect to the mental state or condition of a defendant in a criminal case may state an opinion or inference as to whether the defendant did or did not have the mental state or condition constituting an element of the crime charged or of

*The text of these rules is as amended through April 1, 1990. The Federal Rules of Evidence govern all judicial proceedings for the United States Courts and Magistrates. The Federal Rules of Evidence have now been adopted, in whole or in part, by almost all of the states, and therefore these provisions will most likely govern local state court proceedings.

a defense thereto. Such ultimate issues are matters for the trier of fact alone.

Rule 705. Disclosure of Facts or Data Underlying Expert Opinion

The expert may testify in terms of opinion or inference and give reasons therefor without prior disclosure of the underlying facts or data, unless the court requires otherwise. The expert may in any event be required to disclose the underlying facts or data on cross-examination.

Appendix II

Summary of Seven Touchstones for Presenting Expert Testimony

A summary of the seven touchstones is set forth here so that all or a portion of them may be integrated into a trial notebook.

Seven Touchstones With Subtopics for the Direct Examination of an Expert Witness

1. Introduction—Identification and Relationship to the Case
2. Qualifications
3. Tender Witnesses and Experts
4. Assignment and Overview of Basis for Opinion
5. Opinion
6. Explanation of Opinion—Teaching
7. Conclusion—End Strong

Touchstone #1: Introduction— Identification of Expert's Relationship to the Case

(a) State name, occupation or profession, and business address
(b) Explain area of expertise or specialty
(c) "Have you been asked to (insert a summary statement describing the investigation by the expert)?"
(d) "Have you prepared an opinion on (insert a summary statement of the opinion)?"
(e) "Before we get to your opinion in this case, let's look at your qualifications and expertise to give such an opinion."
(f) Then go directly to the witness' qualifications

Touchstone #2: Qualifications

(a) Topic areas for qualifications
  (1) Education;
  (2) Special Training;
  (3) Experience;

(4) License—Certification;
(5) Publications;
(6) Teaching Experience; and
(7) Experience as an Expert Witness/Prior In-Court Testimony

(b) Tie the Expert's Qualifications into this Case
(c) Priority of Persuasiveness of the Qualifications
(d) Explanation of Expertise or Specialty
(e) Stipulating to the Expert Witness's Qualifications

Touchstone #3: Tender Witness as an Expert in a Particular Field

"If the court please, I tender John Doe as an expert in (insert area of expertise)."

Touchstone #4: Assignment and Overview of Basis for Opinion

(a) Expert's Assignment
(1) "Have you been retained to examine/investigate/evaluate the (insert a summary of the expert's assignment) in this case?"
(2) "Are you being compensated for your time?"
(3) "Is that compensation arrangement the usual and regular fee for these types of matters?"

Or—

"Is that compensation arrangement the usual and regular fee in your field of expertise?"

(4) "What was your assignment in this case?"

(b) Overview of Basis for Expert's Opinion—Methodology Used and Data Analyzed by the Expert
(1) "You mentioned that your assignment in this case was to (insert assignment). How did you fulfill that assignment?"

Or—

"What investigation/research did you do for that assignment?"

(2) "What methodology did you use for your investigation/research?"

(3) "Is that methodology customarily used by experts in your field?" (*See* **Fed. R. Evid.** 703.)
(4) Briefly explain the methodology used and why it is applicable to this case.
(5) "What data did you analyze?"
(6) "Is that type of data customarily relied on by experts in your field?" (*See* **Fed. R. Evid.** 703)
(7) "Was the data analyzed sufficient for the methodology used on this project?"

(c) Assumptions—Save for Later

Touchstone #5: Opinion

(a) Multiple Opinions. Separate out each opinion and elicit them seriatim—opinion #1, opinion #2, etc.
(b) Two Questions for Each Opinion
(1) "Do you have an opinion as to (insert the issue at hand)?"
(2) "What is that opinion?"
(c) Reasonable Degree of Certainty: "Do you have an opinion (*pause*) to a reasonable degree of certainty within your profession (*pause*) as to (insert the opinion requested)?"
(d) Opinion on an Ultimate Issue. An expert is permitted to give an opinion on an ultimate issue of fact.

Touchstone #6: Explanation of Opinion—Teaching

(a) How Expert Arrived at the Opinion
(1) Introduction. "You have told us your opinion is that (insert a summary of the opinion); now let's look at how you arrived at that opinion."
(2) Thesis and Methodology Used. The expert should fully explain the thesis and methodology used in arriving at the opinion. Sample questions/topics are:
(i) "What thesis/methodology did you use for your investigation and research in this case?"
(ii) "Why did you choose that thesis/methodology?"
(iii) "Is that thesis/methodology customarily used by experts in your field?"

(iv) "Was that the best thesis/methodology for this project? Why?"

(v) Clearly and persuasively explain the thesis/-methodology used. This is a critical element of the teaching process as the fact-finder must understand and adopt the expert's core thesis and methodology as a prerequisite to accepting the expert's opinion.

(3) Investigation and Data Upon Which Opinion Relies. The expert should explain her investigation and the data relied on in reaching that opinion. Sample questions/-topics are:

(i) "What did you do to start your investigation/-research for this project?"

(ii) "What were the parameters of your investigation/research?"

(iii) Explain the investigation and data collection process—basically what the expert did to implement the thesis and methodology chosen.

(iv) List the data collected *and* relied on by the expert.

- In order to satisfy Rule 703 of the Federal Rules of Evidence, point out that this type of data is customarily relied on by experts in this field of expertise.
- Lawyers typically use charts, graphs and other visual aids to summarize and effectively present the data relied on by the expert.

(v) If any data was not collected or not relied upon by the expert, explain what it was and why.

(vi) Explain that the data used by the expert was sufficient for the analysis involved in this case.

(4) Analysis of Data. The expert should explain her analysis of the data on which he relied and how it interfaces with the thesis and methodology and thus supports the ultimate opinion.

For each category or type of data relied upon by the expert in reaching an opinion, there should be:

(i) data explanation;

(ii) analysis of how the data relates to expert's thesis and methodology;
(iii) analysis of how the data supports the ultimate opinion.

Lawyers universally rely very heavily on the use of charts, graphs and other visual aids to assist the expert in data explanation and analysis. For lawyers the use of visual aids is an integral part of the teaching process.

(5) Theory Differentiation—Save for Later

(b) Assumptions. In this portion of the direct examination, the expert should very clearly explain:
(1) what assumptions were made;
(2) why were those assumptions made;
(3) how reliable those assumptions are;
(4) what assumptions were *not* made;
(5) why those assumptions were not made; and
(6) whether the assumptions made and not made were of the type generally made by experts in that particular field of expertise.

(c) Anticipating Cross-Examination. Areas that should be anticipated being covered during cross-examination of your expert witness are:
(1) Credibility of the Witness
(i) technical expertise and qualifications
(ii) relationship to the party and/or lawyer
(iii) difficulty in communicating—scientist/technical person and not a public speaker, researcher not an actor, or little experience in testifying and therefore nervous.
(2) Validity of the expert's thesis and methodology
(i) whether the expert is within her area of expertise
(ii) integrity of the thesis and methodology within the profession
(iii) applicability of the thesis and methodology to this fact situation
(3) Quality of investigation and research
(i) data collection process and its validity and reliability—what the expert did;
(ii) data relied on and why—what the expert did;

(iii) data not collected nor analyzed and impact on opinion—what expert did not do. If expert would have considered "X," then that would change the opinion.

(4) Validity of assumptions
  (i) propriety of each assumption made by the expert;
  (ii) reliability of each assumption made by the expert;
  (iii) if each assumption was not made, then would change the opinion;
  (iv) propriety of assumptions *not* made;
  (v) reliability of assumptions *not* made;
  (vi) if any of these assumptions were made, then that would change the expert's opinion.

(5) Prior writings and/or testimony. Does the expert have any prior writings and/or courtroom testimony which relate in any way to this case?

(d) Theory Differentiation. Theory differentiation requires a clear and careful analysis of the two competing expert opinions and the underlying basis for each and in order to determine:
(1) how they are similar;
(2) where they diverge;
(3) the rationale for the divergence; and
(4) a method to attack and discredit the divergences.

In conducting this theory differentiation analysis as a means for exposing the flaws in the opposing expert's theory, the lawyer and the expert should examine the opposing expert's anticipated testimony as follows:
(1) opinion—why it is flawed and why ours is better;
(2) thesis and methodology—why it is flawed and why ours is better;
(3) investigation and research—why it is flawed and why ours is better;
(4) data relied upon—why it is flawed and why ours is better;
(5) data not analyzed and what expert did not do—why it is flawed and why ours is better;
(6) analysis of data—why it is flawed and why ours is better;
(7) assumptions made and not made—why it is flawed and why ours is better;

(8) prior writings or testimony by the expert—can they be used against the expert's analysis in this case.

(e) Most Persuasive Rationale/Basis for Opinion. There is a maxim among trial lawyers that whenever possible an effective advocate should "start strong and end strong." Thus, the expert's explanation of his opinion should end on a high note. As the conclusion for the explanation of the opinion, the expert should state the principal reasons why he is confident of his opinion including the underlying thesis and methodology, investigation and research, data analysis, and assumptions. To be persuasive and effective, this concluding rationale for the opinion must be a precise and succinct synthesis and not simply a rehash of prior testimony.

A question to begin the concluding rationale for the expert's opinion is:

"You have given us your opinion that (insert a summary of the opinion), why are you so confident of that opinion?"

(f) Go to Next Opinion and Follow Same Outline

Touchstone #7: Conclusion—End Strong

If the expert has given only one opinion, then see 6(e) above for the concluding rationale that will end the examination on a high note.

If, however, the expert has given more than one opinion, then the entire direct examination should end on a high note with a review of the expert's most significant contribution to the case and the most persuasive rationale and basis for the expert's opinions.