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EMPLOYEE AND INVENTOR WITNESSES IN
PATENT TRIALS: THE BLURRY LINE BETWEEN
EXPERT AND LAY TESTIMONY

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ABSTRACT

Parties in patent infringement lawsuits frequently must choose a witness to explain complex or scientific technology behind an invention or an accused product that sits at the heart of a claim or a defense. Often, the parties select an employee witness such as an engineer, scientist, or a named inventor of the patent-in-suit who can testify based on first-hand experience with the technology in question rather than a hired expert, who must prepare an expert report and who may not share the same incentives and goals as the litigant. Because these employee witnesses testify regarding technical or scientific issues, but they do so from first-hand knowledge, courts have struggled over whether such witnesses must be designated as experts under the Federal Rules of Evidence. This has created a growing conflict among courts over how far a lay witness may go in testifying about technical and scientific matters before crossing the boundary into expert testimony. This Article addresses these conflicting cases and proposes an approach that courts can use to determine which topics in patent cases are appropriate matters only for expert witnesses and which topics may be addressed by highly skilled and knowledgeable lay witnesses.

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INTRODUCTION

Because patent litigation frequently involves complex scientific and technical issues, litigants in patent infringement suits face a key question that can shape an entire trial: who is the best witness to explain the technology in the case to the jury? Whether it is the patent owner trying to explain the patent-in-suit or the accused infringer describing prior art or an accused product, the choice of witnesses who can accomplish this important task normally comes down to either a retained expert or an in-house employee witness (often a scientist, engineer, or a named inventor of the patent-in-suit). The choice between these two kinds of witnesses encompasses several smaller strategic questions, such as which witness the jury will find most credible or likeable, which witness knows the technology and the industry the best, and so forth. But before reaching those issues, litigants face a surprisingly difficult threshold question of whether the employee witness must be designated as an expert in order to testify or whether he may testify as a lay witness.

Although many litigants and many courts have addressed this very issue, there is no consensus, creating a growing conflict in patent suits over just how far a lay witness may go in testifying about technical or scientific issues before the testimony crosses the line into the expert's realm. Explaining the technology behind an invention or an accused product is a crucial aspect of patent cases, and strategic considerations such as credibility with the jury, the added expense of relying on paid experts, and the possibility that an expert may not entirely agree with the litigant's position have driven parties to instead

choose in-house witnesses such as longtime employees or company founders rather than retained experts for this important task.¹ However, while choosing an employee witness to deliver this type of testimony has its advantages, it also raises complicated questions about how to classify the testimony, which can in turn determine whether the court admits it or rejects it entirely.

The first issue patent litigants must address after choosing an employee to give technical testimony is how to designate that testimony under the Federal Rules of Evidence. The Rules describe three categories of testimony: standard lay testimony that must be factual and based on personal knowledge,² lay opinion testimony,³ and expert testimony that is based on “scientific, technical or other specialized knowledge.”⁴ However, as patent litigants who offer employee testimony have found time and again, the lines between these categories are not as bright as they first appear. Indeed, courts are deeply split over whether a witness who testifies regarding highly technical or scientific knowledge that is based on his personal experience is offering expert testimony or lay testimony.⁵

While the problem of distinguishing lay and expert testimony is not exclusive to patent litigation, it arises in such cases quite often because they almost always involve detailed technical testimony that is based on a witness’s personal knowledge. As one court noted, disputes over whether witnesses are offering lay or expert testimony are “common in the realm of patent litigation.”⁶ Employee witnesses in patent trials blur the line between expert and lay witnesses because although they are often experts in their fields, they frequently offer percipient testimony based on their personal knowledge of an invention or device. Thus, a complication in distinguishing between expert and lay testimony arises because many witnesses in patent trials *could* be classified as experts despite the fact that they offer first-hand, percipient testimony. Such percipient testimony is typically considered lay testimony. The line gets even more blurry when such a witness offers an opinion, typically the expert’s realm, because “the distinction between statements of fact and opinion is, at best, one of degree.”⁷

In this Article, I will address the growing dispute in federal courts over

1. See, e.g., Edward G. Poplawski, *Selection and Use of Experts in Patent Cases*, 27 AIPLA Q.J. 1, 10 (1999) (stating that “a number of jurors will credit testimony from an employee . . . [i]ndeed, such testimony may be virtually imperative in some cases”); George Brent Mickum & Luther L. Hajek, *Guise, Contrivance, or Artful Dodging? The Discovery Rules Governing Testifying Employee Experts*, 24, REV. LITIG. 301, 313 (2005) (noting that some “benefits of using an employee expert in litigation are obvious,” such as allegiance to the client and cost savings).

2. FED. R. EVID. 602.

3. FED. R. EVID. 701.

4. FED. R. EVID. 702.

5. See discussion of cases in Part III, *infra*.

6. *Fujitsu Ltd. v. Netgear, Inc.*, No. 07-CV-710, 2009 WL 2341810, at *3 (W.D. Wis. July 29, 2009).

7. *Beech Aircraft Corp. v. Rainey*, 488 U.S. 153, 168 (1988).

whether employee testimony in patent trials should be considered expert or lay testimony. As short-hand, I will refer to technical or scientific witnesses who could be designated as experts but who testify from first-hand knowledge as “employee witnesses.” Such witnesses are often founders, inventors, engineers, or scientists who have intimate knowledge of a device, invention, and the relevant field in general.

In Part I, I will outline the three rules of evidence that broadly distinguish between lay and expert witnesses and discuss the purpose of the rules. Part II will cover the strategic advantages to litigants in categorizing employee witnesses as lay witnesses rather than as experts. These strategic considerations motivate litigants to push the boundary between expert and lay testimony, which is in part why courts so frequently face this issue. In this Part, I will also address the potential dangers litigants face in designating such witnesses as experts. In Part III, I will summarize patent cases that have addressed the distinction between lay and expert testimony. Typically, courts have handled this issue on a case-by-case basis, creating ad hoc rules that apply to specific subjects of testimony rather than crafting a comprehensive approach to the problem. Finally, in Part IV, I will propose factors for courts to consider when facing the question of whether to admit a lay witness’s technical or scientific testimony, or whether the witness must be designated as an expert.

I. EXPERT AND LAY TESTIMONY UNDER THE FEDERAL RULES OF EVIDENCE

Federal Rules of Evidence 602, 701 and 702 operate together to distinguish between lay testimony based on facts, lay testimony based on opinions or inferences, and expert testimony that may be based on facts or opinions and need not be based on first-hand knowledge. Each rule has its own purpose, but courts hearing patent cases often struggle to decide which rule should apply to employee testimony.

Rule 602 sets the basic standard that a typical lay witness must meet to testify: there must be sufficient evidence to “support a finding that the witness has personal knowledge of the matter.” Testimony under Rule 602 is limited to “fact[s] which can be perceived by the senses” and which the witness “actually observed.”⁸ The rule’s purpose is consistent with the common-law tradition of insisting on “the most reliable sources of information.”⁹ Thus, the rule helps ensure that juries hear only testimony that meets a minimum standard of trustworthiness.

Although lay witnesses typically may offer only factual testimony, another Rule of Evidence permits them to offer opinions and inferences in some circumstances. Rule 701 states that a lay witness’s testimony

in the form of an opinion is limited to one that is: (a) rationally based on the

8. FED. R. EVID. 602 advisory committee’s note (quoting MCCORMICK ON EVIDENCE § 10, at 19 (3d Ed. 1984)).

9. *Id.*

witness's perception; (b) helpful to clearly understanding the witness's testimony or to determining a fact in issue; and (c) not based on scientific, technical, or other specialized knowledge within the scope of Rule 702 [governing expert testimony].

Thus, although lay witnesses usually must testify regarding only facts, Rule 701 recognizes that “[w]itnesses often find difficulty in expressing themselves in language which is not that of an opinion or conclusion.”¹⁰ A commonly cited example of testimony that falls into the lay opinion category is a description that “a substance appear[s] to be blood.”¹¹ Although this is technically an opinion, Rule 701 allows a lay witness to offer this testimony because it meets all three requirements described above. Moreover, Rule 701 also acknowledges the “practical impossibility of determining by rule what is a ‘fact.’”¹²

Before 2000, Rule 701 did not include any language referring to expert testimony under Rule 702. The 2000 amendment to Rule 701 added part (c) to prevent parties from “proffering an expert in lay witness clothing.”¹³ In other words, prior to the 2000 amendments, litigants sought to sneak expert testimony into court by calling it lay opinion testimony under Rule 701. Part (c) makes clear that if the testimony is based on “scientific, technical, or other specialized knowledge,” it should be considered expert testimony under Rule 702.

Although the 2000 amendment to Rule 701 helped clarify the province of expert witnesses, the exact line between lay and expert testimony remains hazy. Unfortunately, the Advisory Committee notes to Rule 701 only confuse the issue further. In discussing part (c), the Advisory Committee attempts to distinguish expert testimony based on “scientific, technical, or other specialized knowledge” from lay testimony based on “particularized knowledge.”¹⁴ The Committee writes that, for example, a business owner may testify as a lay witness on topics typically reserved for experts, such as the “value or projected profits of the business,” because of the “particularized knowledge that the witness has by virtue of his or her position in the business.”¹⁵ The rules allow such testimony because it is based on the businessperson’s “particularized” knowledge, not expert knowledge, even though an average layperson unfamiliar with the business might be unable to reach the same opinion by perceiving the same facts.

It can be extremely difficult to pin down the distinction between lay testimony that relies on “particularized” knowledge versus expert testimony based on “scientific, technical or specialized knowledge.” The Advisory Committee notes suggest that the difference between the two is that expert

10. FED. R. EVID. 701 advisory committee’s note.

11. *Id.*

12. *Id.*

13. *Id.*

14. *Id.*

15. *Id.*

knowledge “results from a process of reasoning which can be mastered only by specialists in the field,” whereas lay particularized knowledge results “from a process of reasoning familiar in everyday life.”¹⁶

To return to the business profits example, it seems that the Advisory Committee supposes that any layperson with similar experience in the business could project the business’s profits based on “reasoning familiar in everyday life.” However, if a witness sought to predict a business’s profits by applying an economic model or comparing it to similar businesses, presumably this would be expert testimony because it would require “reasoning which can be mastered only by specialists in the field.”

Despite this guidance, the difficulty in distinguishing the two types of testimony remains. As Professor Fisher described the challenge, “[a]t what point does a lay witness cross the nearly evanescent line that separates an opinion rooted in common knowledge from one ‘based on scientific, technical, or other specialized knowledge? . . . [T]he line remains blurry in many contexts.”¹⁷ In the business profits example, imagine how easily the line blurs if the witness is both the longtime CEO of the business and also has an advanced degree in economics. Such hybrid witnesses are common in patent trials, forcing courts to distinguish between testimony based on personal experience and testimony based on expert training.

The third and final type of testimony is expert testimony, which falls under Rule 702. The rule’s broad language allows any witness qualified as an expert by “knowledge, skill, experience, training, or education” to testify based on “scientific, technical, or other specialized knowledge.”¹⁸ The two factors used to decide whether expert testimony is admissible are “reliability and helpfulness” to the jury in understanding the facts of the case.¹⁹ The Advisory Committee notes add a further wrinkle by emphasizing that the term “expert” should not be viewed in a “narrow sense.”²⁰ Rather, the term “expert” also includes a “large group sometimes called ‘skilled’ witnesses.”²¹

Viewing the three rules and their accompanying notes as a whole, courts and litigants often struggle to determine which rule applies to testimony in any given case. After all, the difference between testimony based on “particularized knowledge” (lay testimony) and testimony from a “skilled witnesses” (expert testimony) is not self-evident. Nor can courts simply rely on the tradition that experts normally offer opinions whereas lay witnesses testify to facts; as Rule 701 makes clear, it is appropriate for lay witnesses to offer opinion testimony in certain circumstances.

Even the committee that drafted the Federal Rules of Evidence struggled

16. *Id.*

17. GEORGE FISHER, EVIDENCE 738 (3d ed. 2013).

18. FED. R. EVID. 702.

19. FED. R. EVID. 702 advisory committee’s note.

20. *Id.*

21. *Id.*

with the distinction between lay and expert testimony when it was crafting the amendments to Rule 701. The original version of Rule 701(c) “provided that lay opinion testimony could not be admitted if it was based on ‘scientific, technical or other specialized knowledge.’ [But] [t]he ‘within the scope of Rule 702’ language was not in the proposed rule.”²² However, the Committee changed the draft rule in response to criticism from the Department of Justice and added the “within the scope of Rule 702” language to clarify that “the amendment was not intended to ‘prohibit lay witness testimony on matters of common knowledge that traditionally ha[d] been the subject of lay opinions.’”²³

The challenge of distinguishing between lay and expert testimony caused one leading evidence treatise to comment that the

distinction between expert and lay witnesses has blurred. Thus on the one hand, lay witnesses sometimes give testimony that resembles what is usually reserved for experts. On the other hand, sometimes experts look somewhat like lay witnesses because they lack formal training in any recognized discipline. The occasional convergence or overlap of these categories reflects the fact that there is less pressure on lay witnesses to stay absolutely within the factual or concrete in testifying (more willingness to tolerate some general or conclusory testimony), and that witnesses may qualify as experts by virtue of experience, so most people are experts in something, whether it be the value of the property they own or the details of their job or work stations.²⁴

Patent trials are likely to expose this confusion between lay and expert testimony because they frequently feature the kind of witnesses described by Mueller and Kirkpatrick—highly skilled witnesses who testify about their personal, firsthand involvement in technical or scientific inventions. Moreover, patent litigants often find it to their advantage not to designate such witnesses as experts but rather to try to squeeze as much technical testimony as possible into the lay witness category. I turn now to the strategic advantages that encourage patent litigants to offer these witnesses as lay witnesses rather than as experts and the dangers they face in doing so.

II. THE STRATEGIC ADVANTAGES OF OFFERING EMPLOYEES AND INVENTORS AS LAY RATHER THAN EXPERT WITNESSES

Parties in patent litigation often rely on highly technical witnesses for any number of reasons, from describing an infringing device to explaining the state

22. *Tampa Bay Shipbuilding & Repair Co. v. Cedar Shipping Co., Ltd.*, 320 F.3d 1213, 1222 (11th Cir. 2003); *see also* Gerard Harrison, *May An Inventor Give Lay Testimony? Rule of Evidence 701 May Offer Leeway, Even if There Is a Technical Angle*, NAT’L. L.J., May 10, 2004.

23. *Tampa Bay Shipbuilding & Repair Co.*, 320 F.3d at 1223 (quoting Memorandum from the Advisory Committee on Evidence Rules, to the Chair of the Standing Committee on Rules of Practice and Procedure (May 1, 1999)) (alteration in original).

24. CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, *FEDERAL EVIDENCE* § 7:6 (3d ed. 2007).

of the art at the time of an invention. There are significant practical and strategic advantages to using an inventor or employee for such testimony rather than an outside expert. First, relying on the employee can save a party the time and stress of commissioning an expert report that may not advance all the party's litigation goals, whereas the party can be more certain that his employee shares his interests. While an outside expert might not automatically fall in line with litigation strategy, "normally there is no question about an employee's allegiance."²⁵ Also, using an employee rather than an outside expert can save a party a great deal of money.²⁶

Once a party chooses an employee as the witness, he must decide whether the employee can testify as a lay witness or whether to designate the employee as an expert. One advantage of offering the employee as a lay rather than expert witness is that lay witnesses do not have to prepare expert reports as required by Federal Rule of Civil Procedure 26. There are at least three significant benefits to avoiding a Rule 26 expert report by designating the employee as a lay witness: (a) it may spare the employee the time and labor of preparing an onerous and lengthy report; (b) Rule 26 disclosure requirements may open new fields of discovery to the party's opponent that previously were unknown or unavailable; and (c) avoiding Rule 26 requirements may protect more information under the attorney-client and work product privileges than if the employee were designated as an expert. Amendments to Rule 26 that took effect on December 1, 2010 also impact these calculations by defining different types of expert reports for employee witnesses and by expanding work product protection for outside experts.²⁷ Courts are still defining the exact scope of these amendments. However, despite these rule changes, there are still significant strategic advantages to designating employee witnesses as lay witnesses rather than as experts when possible.

A. *Avoiding the Expert Report Requirements of Rule 26*

The Federal Rules of Civil Procedure require parties to identify in advance any witness that will testify as an expert.²⁸ Furthermore, an expert witness who is "retained or specially employed to provide expert testimony" must prepare and submit a report detailing, among other things, "all the facts or data considered by the witness in forming" his opinions.²⁹ Therefore, litigants that designate employee witnesses as lay rather than expert witnesses may escape this burdensome task.

Before the 2010 amendments to Rule 26, there was some dispute about

25. Mickum & Hajek, *supra* note 1, at 313.

26. *See id.*

27. *See* Letter from Chief Justice John Roberts to Speaker Nancy Pelosi (April 28, 2010), available at www.supremecourt.gov/orders/courtorders/frcv10.pdf.

28. FED. R. CIV. P. 26(a)(2)(A).

29. FED. R. CIV. P. 26(a)(2)(B)(ii), (i)-(vi).

whether an employee witness was ever required to prepare an expert report, even if the witness was designated as an expert. Although the previous version of Rule 26 exempted employee experts from the report requirement unless the employee's work duties "regularly involve[d] giving expert testimony,"³⁰ courts differed on how to apply the rule. Some courts ignored the rule and held that all employees designated as experts had to prepare reports regardless of whether testifying was a regular part of their job duties or not.³¹ One district court linked this holding to the court's role as the gatekeeper of expert testimony under *Daubert*, holding that if employee experts were exempt from report requirements, it might be impossible for the court to "conduct an orderly *Daubert* analysis" to assess the credibility of the expert's methods.³² Other courts disagreed and followed the old version of Rule 26 more faithfully,³³ while courts in the Northern District of California developed yet a third intermediate approach under which employee experts were required to prepare reports only if they intended to testify to matters that were outside the scope of their regular job duties.³⁴ These conflicting opinions led to broad differences in how the rule was applied.

30. FED. R. CIV. P. 26(a)(2)(B).

31. *See, e.g.,* Day v. Consol. Rail Corp., No. 95-CV-968, 1996 WL 257654, at *2 (S.D.N.Y. May 15, 1996) (acknowledging the clear language of Rule 26 but holding nonetheless that exempting some employee witnesses would "create a category of expert trial witness for whom no written disclosure is required—a result plainly not contemplated by the drafters of the current version of the rules and not justified by any articulable policy"); *see also* Prieto v. Malgor 361 F.3d 1313, 1317 (11th Cir. 2004) ("allowing a blanket exception for all employee expert testimony . . . should not be permitted"); *FURminator, Inc. v. Munchkin, Inc.*, No. 08-CV-367, 2009 WL 3261855, at *2 (E.D. Mo. Oct. 8, 2009); *Lee v. Valdez*, No. 07-CV-1298, 2008 WL 4287730, at *8 (N.D. Tex. Sept. 18, 2008); *Marco Island Cable, Inc. v. Comcast Cablevision of the S., Inc.*, No. 04-CV-26, 2006 WL 1722341, at *2 (M.D. Fla. June 22, 2006); *El Dorado Irrigation Dist. v. Traylor Bros., Inc.*, No. 03-CV-949, 2006 WL 191960 (E.D. Cal. Jan. 24, 2006).

32. *C & O Motors, Inc. v. Gen. Motors Corp.*, No. 05-CV-835, 2007 WL 2156587, at *5 (S.D. W. Va. July 25, 2007) (citing *Daubert v. Merrill Dow Pharm.*, 509 U.S. 579 (1993)).

33. *See, e.g.,* Bank of China, N.Y. Branch v. NBM, LLC, 359 F.3d 171, 182 n.13 (2d Cir. 2004) (concluding that plaintiff merely had to identify its employee expert in advance, but the employee was not required to produce an expert report); *accord* *Watson v. United States*, 485 F.3d 1100, 1107 (10th Cir. 2007); *Voda v. Cordis Corp.*, 506 F. Supp. 2d 868, 880 (W.D. Okla. 2007); *GSI Group, Inc., v. Sukup Mfg. Co.*, No. 05-CV-3011, 2007 WL 853959, at *2 (C.D. Ill. March 16, 2007); *Bowling v. Hasbro*, No. 05-CV-229, 2006 WL 2345941, at *2 (D. R.I. Aug. 10, 2006); *Adams v. Gateway, Inc.*, No. 02-CV-106, 2006 WL 644848, at *1 (D. Utah March 10, 2006); *Navajo Nation v. Norris*, 189 F.R.D. 610, 613 (E.D. Wash. 1999).

34. *See, e.g.,* Batts v. County of Santa Clara, No. 08-CV-286, 2010 WL 147965, at *2 (N.D. Cal. Jan. 12, 2010) (allowing a nurse to offer "opinions that she may have developed within the regular scope of her employment"); *accord* *Funai Elec. Co. v. Daewoo Elec. Corp.*, No. 04-CV-1830, 2007 WL 1089702, at *1 (N.D. Cal. Apr. 11, 2007) (requiring engineer to submit "a report limited to identification of the subjects" about which he would testify before deciding whether a full expert report was necessary); *see also* Katherine A. Rocco, Note, *Rule 26(a)(2)(B) of the Federal Rules of Civil Procedure, In the Interest of Full Disclosure?*, 76 *FORDHAM L. REV.* 2227 (2008) (discussing cases).

The 2010 amendments to Rule 26 attempted to resolve these disagreements.³⁵ The new rule creates two different types of expert reports: the full-blown Rule 26(a)(2)(B) report, and the newly created and less onerous Rule 26(a)(2)(C) report. The Rule requires a full 26(a)(2)(B) report for any retained expert or employee witness who is specially employed to give expert testimony. This full report must include a “complete statement” of all the opinions the witness will offer and the basis for those opinions, the “facts or data” the witness reviewed in forming the opinions, any exhibits the witness will use, and a summary of the witness’s qualifications as an expert.³⁶ The less onerous new Rule 26(a)(2)(C) report requires only a written disclosure (rather than a report), which must state the subject matter of the witness’s testimony and a summary of the facts and opinions to which he will testify.³⁷

The Advisory Committee notes to the new Rule 26 indicate that the abbreviated reports for employee experts who do not regularly testify as part of their job duties should be “considerably less extensive than the report required by Rule 26(a)(2)(B)” for specially retained experts or employees whose duties do involve regularly testifying.³⁸

Courts do not have much experience interpreting what must be included in the abbreviated Rule 26(a)(2)(C) report considering that the rule has only been in effect since the end of 2010. However, some early cases reveal that, perhaps unsurprisingly, parties are likely to disagree on this subject. These disputes have already required courts to rule on several different kinds of Rule 26(a)(2)(C) reports. For example, the court in *Skyeward Bound Ranch v. City of San Antonio* precluded a witness from testifying due to an inadequate Rule 26(a)(2)(C) summary.³⁹ The court held that the summary was insufficient because it “contained no opinions, identified no facts forming the basis of [the employee’s] testimony, and failed to provide the computation of damages.”⁴⁰ Ultimately, the court held that the report was insufficient because it failed to provide the defendant “notice of the facts and the opinions [the witness] would present.”⁴¹

The Rule 26(a)(2)(C) report in *Silgan Containers v. National Union Fire Insurance* was styled somewhat differently, and there the court found the report

35. See FED. R. CIV. P. 26(a)(2)(C) advisory committee’s note, stating that the new rule aims to “resolve[] a tension that has sometimes prompted courts to require reports under Rule 26(a)(2)(B) even from witnesses exempted from the report requirement.”

36. FED. R. CIV. P. 26(a)(2)(B).

37. FED. R. CIV. P. 26(a)(2)(C)(i)-(ii).

38. Fed. R. Civ. P. 26(a)(2)(C) advisory committee’s note at 15; *see also supra* note 35.

39. No. 10-CV-316, 2011 WL 2162719, at *3 (W.D. Tex. June 1, 2011).

40. *Id.*

41. *Id.*; *see also* *Nicastle v. Adams County Sheriff’s Office*, No. 10-CV-816, 2011 WL 1674954, at *1, (D. Colo. May 3, 2011) (holding a report insufficient because it merely cited to thousands of pages of transcripts and therefore “fail[ed] to provide anything approaching a brief account or statement of the main facts” on which the expert would rely).

sufficient. In that case, the plaintiff designated several of its employees as experts after they had already been deposed.⁴² The plaintiff's Rule 26(a)(2)(C) disclosure defined the subject matter of the employees' expert testimony "by referencing excerpts of their depositions."⁴³ The court approved the reports in that case because it found that the plaintiff had "sufficiently articulated the subject matter upon which the witnesses [would] testify."⁴⁴

The 2010 amendments to Rule 26 will likely lessen the reporting burden for employee experts, although further case law interpreting the new rules is necessary before litigants can know exactly what is required for a Rule 26(a)(2)(C) report. Regardless of how these cases turn out, the path of least resistance is still to simply designate employee witnesses as lay witnesses rather than experts, thereby avoiding the report requirement entirely. If a party can successfully shoehorn the witness's testimony into the lay rather than the expert category, the party can be certain of avoiding a Rule 26 report in any form.

B. *Protecting Documents from Discovery*

Aside from avoiding reporting requirements, a second reason a party may wish to designate an employee as a lay rather than an expert witness is that labeling the employee as an expert may expose new areas of discovery to the opposing party. If the employee's duties regularly involve giving expert testimony and he must therefore prepare a full expert report, Rule 26(a)(2)(B)(ii) requires the report to list all "the facts or data considered by the witness in forming" his opinions. If the witness is a longtime employee or company founder, such a list is likely to be extensive and may give away more information than the party would like.⁴⁵

As one observer described the danger, the Rule 26(a)(2)(B) employee expert report could be "the first step toward opening the floodgates, potentially rendering discoverable documents reviewed by an employee expert years before the litigation arose."⁴⁶ Although information that the employee reviews specifically in preparation for litigation is protected,⁴⁷ that protection does not

42. *Silgan Containers v. Nat'l Union Fire Ins.*, No. 09-CV-5971, 2011 WL 1058861, at *1 (N.D. Cal. Mar. 23, 2011).

43. *Id.* at *8.

44. *Id.* at *9.

45. The danger is less if the employee must prepare only an abbreviated Rule 26(a)(2)(C) report, which requires only "a summary of the facts and opinions to which the witness is expected to testify." FED. R. CIV. P. 26(a)(2)(C)(ii). However, as discussed in the preceding section, courts have yet to define the exact requirements of these new abbreviated reports. Furthermore, the court always has power to order more extensive disclosures, so there is a chance the employee would be required to disclose even if the employee normally would fall under the new Rule 26(a)(2)(C).

46. Sean Regan and Paulo R. Lima, *Whether to Use an Employee as an Expert Witness*, N.Y. L.J., Dec. 6, 2007.

47. FED. R. CIV. P. 26(b)(3)(A).

cover documents reviewed during the regular course of the employee's work. Additionally, "any relevant knowledge held by the employee expert but developed or acquired prior to the [employee's] assignment for trial preparation" is discoverable as well.⁴⁸

Often, an employee expert may have a hard time distinguishing between things learned during the course of general work duties and things learned specifically in preparation for litigation. As a result:

[Y]ou may have more complications using an in-house expert than using an outside expert. Your in-house expert may have intermingled in her mind other privileged information that is related to the opinions but that she obtained during the normal course of employment long before the case began. That might make it tough to segregate the topics neatly and produce only what was obtained and "considered" in reaching the opinions; other privileged information might get swept in as well.⁴⁹

In addition to the dangers of exposing information the employee learned before the litigation, information learned during regular job duties, and intermingled information, one frequently cited case expanded the scope of discoverable information even further. In *Atari Corp. v. Sega of America*, the court held that any information an employee learned in preparation for trial that "overlaps" with information learned during employment is also discoverable.⁵⁰ This creates an almost impossible task for the employee expert, who must attempt to segregate knowledge or documents learned or reviewed during regular work duties from information learned specifically in preparation for litigation, to say nothing of identifying even more difficult categories such as overlapping information and information learned at one point but remembered years later in preparation for litigation.

In practice, much of this previously acquired, intermingled, and overlapping information is probably discoverable even absent the employee's expert report. However, when a party designates the employee as an expert witness, Rule 26(a)(2)(B)(ii) forces the party to provide to the opposing litigant a detailed list of facts, data, and documents supporting the witness's testimony. While it may not expand the field of discoverable information, such a disclosure gives the opposing party strong ammunition for deposing and cross-examining what may be a key witness. The Rule 26(a)(2)(B)(ii) disclosure also focuses the opposing party's attention on particular documents and information that the opposing party might not previously have realized were important.

The danger that the Rule 26(a)(2)(B)(ii) disclosure might give an opposing party an advantage may outweigh the benefit of choosing an employee instead of an outside expert, whose discoverable knowledge can be tightly controlled. However, as discussed, there are disadvantages to relying on outside experts as

48. James L. Hayes & Paul T. Ryder, Jr., *Rule 26(b)(4) of the Federal Rules of Civil Procedure: Discovery of Expert Information*, 42 U. MIAMI L. REV. 1101, 1170 (1988).

49. Sidney I. Schenkier, *The Limits of Privilege in Communications with Experts*, LITIGATION, Winter 2007, at 16, 21 (2007).

50. 161 F.R.D. 417, 422 (N.D. Cal. 1994).

well. Therefore, when possible, the best of all worlds may be to select an employee, but to designate the employee as a lay rather than an expert witness. That course avoids both the dangers of the Rule 26(a)(2)(B)(ii) report and the dangers of using an outside expert.

C. *Protecting the Attorney-Client Privilege*

Yet another reason a litigant might designate an employee as a lay witness is that designating the employee as an expert may erode the attorney-client and work product privileges.

The 2010 changes to Rule 26 expand the work product and attorney-client privileges over some expert materials. Under the old rule, expert witness discovery might have required parties “to produce documents that [were] otherwise protected by the attorney-client privilege and/or work product doctrine.”⁵¹ Indeed, many courts interpreted the old rule to impose very broad discovery requirements on expert witnesses. For example, in *Karn v. Ingersoll-Rand Co.*, the court held that the old version of Rule 26 “mandate[d] disclosure of all materials reviewed by an expert witness.”⁵²

There was some dispute under the old rule over whether such broad expert discovery also applied to opinions and legal theories that attorneys communicated to experts. As one court summarized the disagreement:

Currently, federal courts sharply disagree about whether a party must produce the mental impressions, opinions, or legal conclusions of its attorney when the attorney communicates those opinions to a testifying expert. One line of decisions has adopted a bright-line rule, maintaining that Rule 26 mandates disclosure of all information shared with a testifying expert, including the mental impressions and opinions of the attorney. [Citing cases.] Other courts have ruled that “core attorney work product,” comprising the mental impressions and opinions of the attorney, are protected from discovery, notwithstanding communication of that information to a testifying expert.⁵³

This dispute under the old rule was potentially even more perilous when the testifying expert was a longtime employee. In one patent infringement case involving an employee expert, the court held that Rule 26 required “the disclosure of all materials considered by” the employee expert, regardless of “claims of attorney-client privilege or work-product privilege.”⁵⁴ Because it is often unclear at the outset of litigation which employees might end up testifying, rulings like this could force litigants into significant unintended disclosures. Under the old rule, it was possible that lawyers could communicate legal theories, weaknesses of the case, and litigation strategy to a client’s employee, only to find all this information subject to discovery after offering

51. Regan & Lima, *supra* note 46.

52. 168 F.R.D. 633, 639 (N.D. Ind. 1996).

53. *Mfg. Admin. & Mgmt. Sys., Inc. v. ICT Group, Inc.*, 212 F.R.D. 110, 113-14 (E.D.N.Y. 2002).

54. *Dyson Tech. Ltd. v. Maytag Corp.*, 241 F.R.D. 247, 248 (D. Del. 2007).

that employee as an expert witness.

The amendments to Rule 26 aimed to respond to this “widespread practice permitting discovery of all communications between attorney and expert witness, and of all drafts of the [Rule 26](a)(2)(B) report.”⁵⁵ The Committee on Rules of Practice and Procedure found that “[t]he fear of discovery inhibits robust communications between attorney and expert trial witness, jeopardizing the quality of the expert’s opinion.”⁵⁶

To resolve this problem, the 2010 amendments to Rule 26 protect the work product and attorney-client privileges in communications with experts to a greater extent than the old rule did. For example, the amendments protect an expert’s draft reports from discovery.⁵⁷ They also limit what experts are required to disclose to the “facts or data” they consider in forming their opinions, whereas the old rule also required disclosure of “other information” as well.⁵⁸

Despite this expanded protection, some early cases interpreting the rule have indicated that work product and the attorney-client privileges may not be as robust as some litigants would like. For example, one early case interpreting the changes to Rule 26 held:

[A]lthough the revision of Rule 26(a)(2)(B)(ii) to allow disclosure of “facts or data” excludes theories or mental impressions of counsel, the phrase “facts or data” should still be “interpreted broadly to require disclosure of any material considered by the expert, from whatever source, that contains factual ingredients. The disclosure obligation extends to any facts or data ‘considered’ by the expert in forming the opinions to be expressed, not only those relied upon by the expert.” Additionally, the revision of Rule 24(b)(4) should not impede discovery about the opinions to be offered by the expert or the development, foundation, or basis of those opinions.⁵⁹

By its terms, the new Rule 26(b)(4)(B) protects draft reports for all kinds of experts, whether hired or in-house. But since the scope of these expanded attorney-client and work product protections are unclear as to hired experts, the same is true for the in-house expert whose job duties involve regularly testifying. Moreover, the amended Rule explicitly provides less protection for communications with in-house experts than with hired experts. Importantly, the new Rule 26(b)(4)(C) protects communications only with hired experts. During the public hearings on the proposed amendments, several witnesses alerted the

55. Committee on Rules of Practice and Procedure of the Judicial Conference, May 8, 2009 Report on Proposed Amendments at 3, *available at* <http://www.uscourts.gov/RulesAndPolicies/FederalRulemaking/PendingRules/ProposedSupCt1209.aspx>.

56. *Id.*

57. FED. R. CIV. P. 26(b)(4)(B).

58. *See* American Bar Association, Proposed Amendments to the Federal Rules of Civil Procedure, *available at*: http://apps.americanbar.org/litigation/committees/expertwitnesses/docs/1008_rule26.pdf.

59. *Chevron Corp. v. Shefftz*, 754 F. Supp. 2d 254, 264 (D. Mass. 2010) (citations omitted).

committee to this discrepancy,⁶⁰ but the rule remains: there is greater protection under the work product and attorney-client privileges for communications with outside experts than with in-house experts.⁶¹ However, this lack of protection under the Rule does not “exclude protection under other doctrines, such as privilege or independent development of the work-product doctrine.”⁶²

Considering the uncertainty of protections for communications with employee experts, again the best option may be to offer the employee as a lay witness. This and the other strategic considerations such as avoiding onerous reporting requirements and preventing unwanted discovery disclosures have driven many patent litigants to offer employees as lay rather than as expert witnesses.

Designating the employee witness as a lay witness does, however, entail risks because it is not clear exactly how far into technical details an employee may go and still be considered a lay witness. I now turn to the many cases that have struggled with this exact issue, attempting to define the boundary between lay and expert testimony.

III. HOW COURTS IN PATENT CASES HAVE DRAWN THE LINE BETWEEN LAY AND EXPERT TESTIMONY

As discussed, it is sometimes to a party’s advantage to offer an employee as a lay witness rather than as an expert. However, it can be difficult to pin down exactly how far such a witness may go in testifying about technical and scientific matters before the court will no longer accept such testimony as lay testimony. This uncertainty can cause serious problems at trial, where many courts have thrown out significant portions of key testimony because the witness was not designated as an expert. In this Part, I will discuss the line

60. See Judicial Conference of the United States Advisory Committee on Civil Rules, Hearing Transcript from January 14, 2009 at 80-89; Transcript from February 2, 2009 at 158-163, 179-82, 184-89, available at: <http://www.uscourts.gov/RulesAndPolicies/FederalRulemaking/ResearchingRules/Comments/Proposed0808Comments.aspx>.

61. See, e.g., *United States v. Sierra Pac. Indus.*, No. 09-CV-2445, 2011 WL 2119078 (E.D. Cal. May 26, 2011), for an extended discussion of the history and policy rationale behind the stronger protection for attorney communications with hired experts than with in-house experts. The *Sierra Pacific* court analyzed whether attorney communications with fire investigators for the California Department of Forestry and Fire Protection and the United States Forest Service were privileged. *Id.* at *1. The court reasoned that, “[w]hile it is desirable that any testifying expert’s opinion be untainted by attorneys’ opinions and theories, it is even more important that a witness who is testifying regarding his own personal knowledge of facts be unbiased. Therefore, at least in some cases, discovery should be permitted into such witnesses’ communications with attorneys, in order to prevent, or at any rate expose, attorney-caused bias.” *Id.* at *10. The court therefore found that because the two fire investigators did not testify as part of their regular job duties, attorney communications with them were not privileged. *Id.*; see also *PacifiCorp v. Nw. Pipeline GP*, 879 F. Supp. 2d 1171, 1213 (D. Or. 2012) (citing *Sierra Pacific* extensively and applying its rationale).

62. FED. R. CIV. P. 26(b)(4) advisory committee’s note.

between expert and lay testimony and the different approaches courts in patent cases have used to distinguish between the two.

Parties in patent litigation have frequently put courts to the test in dividing expert and lay testimony. Typically, the question arises when one party seeks to strike portions of an opposing witness's declaration or deposition testimony under Federal Rule of Civil Procedure 37(c)(1). Rule 37(c)(1) states that a "party is not allowed to use" any information or witnesses that violate the disclosure and reporting requirements of Rule 26. Thus, a common conflict arises when the party seeking to strike the testimony argues that the witness was not disclosed as an expert, the party propounding the testimony replies that Rule 26 does not apply because the witness did not or will not testify as an expert, and the court is required to decide on which side of the line the testimony falls.

Normally, courts have handled the broad question of expert versus lay testimony on an issue-by-issue basis. In particular, courts hearing patent cases have reached different conclusions as to whether a lay witness, without being designated as an expert, may testify regarding: (a) legal standards such as claim construction, infringement, and enablement; (b) the state of the prior art; (c) a device a witness or his employer developed; and (d) the accused device. I will discuss each narrow question in turn. However, this piecemeal approach has produced conflicting rules and divergent tests. In Part Four, I will elaborate on one case that advanced a broader theory of lay and expert testimony rather than answering the question issue-by-issue and propose facts that courts should consider in deciding this issue.

A. *Testimony Regarding Legal Standards*

Most courts agree that lay witnesses may not testify regarding the legal standards that apply in patent cases, such as claim construction and infringement.⁶³ For example, in *Pandrol USA, LP v. Airboss Ry. Prods., Inc.*, the Federal Circuit upheld a district court's decision to reject an inventor's testimony on "claim construction and interpretation of the original [patent] application," which constituted "expert opinion."⁶⁴ The trial court had rejected the testimony because it was expert testimony under Federal Rule of Evidence 702, and the proponent had failed to submit an expert report.⁶⁵

63. This rule is often applied outside the context of patent cases as well. For example, in *Hygh v. Jacobs*, the Second Circuit held that its decision was "in accord with other circuits in requiring exclusion of expert testimony that expresses a legal conclusion." 961 F.2d 359, 363 (1992) (citing cases from the Sixth and Eighth Circuits). These holdings may be in tension with Federal Rule of Evidence 704, which states that "an opinion is not objectionable just because it embraces an ultimate issue."

64. 424 F.3d 1161, 1167 (Fed. Cir. 2005).

65. *Pandrol USA, LP v. Airboss Ry. Prods., Inc.*, No. 99-CV-182, 2003 WL 24272366, at *4 (W.D. Mo. Oct. 15, 2003). However, it's possible to read *Pandrol* for a narrower holding. The trial court also rejected significant portions of the inventor's infringement

Some courts appear to follow the *Pandrol* ruling that only expert witnesses may testify about legal standards or draw legal conclusions. For example, in *Baran v. Med. Device Technologies, Inc.*, a district court rejected the inventor and patent-holder's testimony on whether the defendant's biopsy instruments infringed his patents because he didn't identify himself as an expert or produce a report.⁶⁶ The court held that the inventor's declaration was, "as a practical matter, an expert report in which he provide[d] his infringement opinion."⁶⁷

Similarly, in *Lucent Technologies, Inc. v. Gateway, Inc.*, the court held that the inventor could not testify on the invalidity of a patent on audio encoding software.⁶⁸ The court held that the inventor could not offer such testimony because "[he] was not designated as an expert witness."⁶⁹ However, the Federal Circuit has not been entirely consistent on this point. For example, despite the *Pandrol* ruling against lay testimony on legal standards, the court has never reversed its somewhat contradictory ruling in *Union Pacific Resources Co. v. Chesapeake Energy Corp.*⁷⁰ In that case, the trial court had allowed eight lay witnesses with extensive background in the field to give their opinions about whether the patent provided an enabling disclosure.⁷¹ On appeal, the Federal Circuit applied the Fifth Circuit standard for allowing lay testimony,⁷² and it held that the trial court had not abused its discretion.⁷³ Although the court was relying on a Fifth Circuit interpretation of evidence rules, this holding is at least in tension with *Pandrol* because the court never made clear whether it was permitting the witnesses to offer facts supporting a legal standard or testimony directly on the legal standard itself. This distinction is important because if the eight witnesses' testimony touched on the substantive law of enabling disclosures rather than merely the factual underpinnings of that legal concept, then the Federal Circuit probably should not have applied Fifth Circuit evidence rules.⁷⁴ Thus, *Union Pacific* and *Pandrol* are at odds.

testimony under the doctrine of assignor estoppel. *See id.* at *4. Since the court was already highly suspicious of the inventor's testimony, the expert/lay distinction could be seen as merely an alternative or additional ground for rejecting his testimony.

66. 666 F. Supp. 2d 776, 778 n.2 (N.D. Ohio, 2009).

67. *Id.*

68. 509 F. Supp. 2d 912, 933 (S.D. Cal. 2007), *aff'd*, 543 F.3d 710 (Fed. Cir. 2008).

69. *Id.*

70. 236 F.3d 684, 693 (Fed. Cir. 2001).

71. *Id.*

72. The Federal Circuit "applies its own law with respect to issues of substantive patent law and certain procedural issues unique to patent law, but applies the law of the circuit in which the district court sits as to non-patent issues." *Id.* (citing *Institut Pasteur v. Cambridge Biotech Corp.*, 186 F.3d 1356, 1368 (Fed. Cir. 1999)).

73. *Id.*

74. If the witnesses had testified about "substantive patent law," the Federal Circuit should not have applied Fifth Circuit procedural rules. *See In re Spalding Sports Worldwide, Inc.*, 203 F.3d 800, 803 (Fed. Cir. 2000) ("[W]e apply the law of the circuit in which the district court sits with respect to nonpatent issues, but we apply our own law to issues of substantive patent law.") (citation omitted).

Unlike *Union Pacific*, one district court did attempt to draw a line between testimony making legal conclusions and testimony on the facts that support a legal conclusion. In *Corning Inc. v. SRU Biosystems*, the court held that only experts in the law may offer legal opinions.⁷⁵ Thus, a technical expert's opinion regarding invalidity was "irrelevant" because he was not a legal expert.⁷⁶ The court, however, did permit the technical expert to "discuss the technology at issue in light of the factors relevant to the written description inquiry" because that inquiry "involve[d] factual questions."⁷⁷

Although the case law here is somewhat unclear, the loose rule of thumb appears to be that lay witnesses may not offer legal conclusions in patent trials. The difficulty is in distinguishing when a witness testifies as to a legal conclusion and when the same witness testifies as to all the factual elements necessary to support that legal conclusion. The dividing line in many cases may be little more than a formality: a lay witness may not actually conclude that a legal test is met, but the witness may testify regarding every factual element necessary to draw that legal conclusion.

B. Lay Testimony on Prior Art

Courts have also struggled to determine exactly how far a lay witness may go in describing prior art before his testimony crosses the line into expert territory. In part, the difficulty stems from the requirement that a witness testifying about prior art be a person skilled in the art. A party in one case argued that this definition required any witness testifying on prior art to be designated as an expert.⁷⁸ The court disagreed and appeared to draw the line between lay and expert testimony as a difference between fact and opinion testimony. The court held that "fact witnesses who are skilled in the art . . . are competent to testify concerning prior art documents."⁷⁹

Another court discussed this issue at length, ultimately rejecting portions of a lay witness's proposed testimony on prior art. In *Liquid Dynamics Corp. v. Vaughan Co., Inc.*, the plaintiff filed a motion in limine seeking to exclude testimony for fear that the defendant would "elicit expert opinion from [the witness] at trial under the guise of lay opinion."⁸⁰ The patent at issue covered a technique to prevent the separation of solid and liquid matter in slurry tanks, and part of the dispute focused on whether any systems in the prior art generated a "substantial helical flow [pattern]."⁸¹

75. No. 03-CV-633, 2005 WL 2465900, at *2 (D. Del. Oct. 5, 2005).

76. *Id.*

77. *Id.*

78. *See In re Omeprazole Patent Litig.*, No. 98-CV-3657, 2002 WL 287785, at *6 n.7 (S.D.N.Y. Feb. 27, 2002).

79. *Id.*

80. No. 01-CV-6934, 2004 WL 2260626, at *2 (N.D. Ill. Oct. 1, 2004).

81. *Id.*

After examining Rules of Evidence 701 and 702, the court cited a Seventh Circuit case for the proposition that lay opinion testimony under 701 does not allow a lay witness “to provide specialized explanations or interpretations that an untrained layman could not make if perceiving the same acts or events.”⁸² The court concluded that a lay witness could not testify on flow patterns in particular, but that the witness’s “testimony regarding prior art systems is not clearly inadmissible for all purposes.”⁸³ Ultimately, the court held that it would have to hear the testimony at trial before making further rulings.⁸⁴ The court apparently drew a line based on how complex or technical the testimony would be. Thus, before making a ruling, the court would have to actually hear the testimony.

A New Hampshire court applied a similar method as the *Liquid Dynamics* court, noting that “[t]here are occasions when the distinction [between lay and expert testimony] may be difficult to discern with respect to some witnesses.”⁸⁵ The court therefore required “detailed written proffers of the proposed testimony” before ruling on whether it crossed into the realm of expert testimony.⁸⁶

Even among courts that have attempted to define a general approach to distinguishing between lay and expert testimony on prior art, the measuring sticks have differed. Similar to the holding in *Liquid Dynamics*, one court held that the issue hinged on how complex the technology was. In that case, the court stated that because the patent covered complicated software technology, “the teachings of prior art would be difficult to discern without the aid of expert testimony.”⁸⁷ Another court used personal knowledge as the touchstone for lay testimony, holding that “lay witnesses may be allowed to testify as to their personal knowledge of a particular invention or prior art.”⁸⁸ In that case, the court relied on whether the witness would testify based on firsthand or secondhand knowledge to distinguish between lay and expert testimony, regardless of the complexity of the testimony. The court there allowed the company president to submit a lay declaration, but the court noted that it was a “close[] question.”⁸⁹

As with testimony regarding legal standards, no clear rule emerges from these cases. And, as in *Liquid Techs*, a party who waits until the eve of trial for the court to determine how key testimony will be treated runs a real risk of

82. *Id.* at *3 (quoting *United States v. Conn*, 297 F.3d 548, 554 (7th Cir. 2002)).

83. *Id.*

84. *Id.*

85. *Insight Tech. Inc. v. SureFire LLC*, No. 04-CV-74, 2009 WL 3242555, at *1 (D.N.H. Oct. 8, 2009).

86. *Id.*

87. *Informatica Corp. v. Bus. Objects Data Integration, Inc.*, No. 02-CV-3378, 2007 WL 607792, at *3 (N.D. Cal. Feb. 23, 2007)

88. *Laser Design Int’l, LLC v. BJ Crystal, Inc.*, No. 03-CV-1179, 2007 WL 735763, at *3 (N.D. Cal. Mar. 7, 2007).

89. *Id.*

seeing the core of his case thrown out at the last minute.

C. *Inventor Testimony Describing a Device*

Yet another area of dispute is whether an inventor may give lay testimony describing his invention or device, its purposes, and how it functions. Many courts have relied on an inventor's extensive firsthand experience with a device as the reason to allow this kind of testimony under the rubric of lay rather than expert testimony. Those courts have resisted attempts by such witnesses to go beyond their percipient knowledge, for example by comparing a device to a patent. But other courts have rejected any explanation of how devices function as requiring expert testimony.

The Federal Circuit in 2010 endorsed the percipient knowledge approach in *Verizon Services Corp. v. Cox Fibernet Virginia*.⁹⁰ The case dealt with packet-switched telephony technology, which provides "telephone calls by breaking up voice signals and sending the resulting data in packets, not all of which need traverse the same path, through a network."⁹¹ Despite the complexity of this technology, the Federal Circuit approved the trial court's decision to allow the inventors to give lay testimony describing the technology because it was based on "personal knowledge" and was limited to "factual testimony."⁹² But the court disallowed the same witnesses from giving "testimony on invalidity for which they had not previously . . . been qualified as an expert."⁹³ Thus, although it seems that at least some of the testimony must have been based on technical or scientific knowledge considering the field of the invention, the witnesses were permitted to testify as lay witnesses as long as they did not stray from their firsthand experiences.

Several trial courts have come to similar conclusions. For example, in *Fresenius Med. Care Holdings, Inc. v. Baxter Int'l, Inc.*, the court allowed an engineer who had helped develop the touch-screen for a heart and lung machine to testify about how the machine worked to the extent that the testimony was "premised on his personal knowledge regarding the machine and the way that it operates."⁹⁴ But the court disallowed the witness from comparing the device at issue to the patent-in-suit or from opining on whether certain machine components were common in the industry.⁹⁵ Again, testimony that appeared

90. 602 F.3d 1325, 1329 (Fed. Cir. 2010).

91. *Id.*

92. *Id.* at 1339-40.

93. *Id.*

94. No. 04-CV-1431, 2006 WL 1330002, at *3 (N.D. Cal. May 15, 2006).

95. *Id.*; see also *Gart v. Logitech, Inc.*, 254 F. Supp. 2d 1119, 1123 (C.D. Cal. 2003) (allowing inventors to explain computer handpiece as lay witnesses but preventing them from comparing device to patent); *Laser Design Int'l, LLC v. BJ Crystal, Inc.*, No. 03-CV-1179, 2007 WL 735763, at *3 (N.D. Cal. Mar. 7, 2007) (permitting inventor to explain how laser device made sub-surface marks on crystals because it was based on "personal knowledge" and did not provide "specialized explanations or interpretations").

technical was permitted under the lay rule as long as it was based on the witness's firsthand experience with the device.

Considering that the Federal Circuit in *Verizon* was reviewing the district court's evidentiary ruling for abuse of discretion,⁹⁶ it would go too far to say that "personal knowledge" and "factual testimony" are concrete rules for determining lay versus expert testimony.⁹⁷ Indeed, another recent case shows that *Verizon* may rely more on the liberal standard of review for evidentiary decisions than on a clear rule. In *WNS Holdings, LLC v. United Parcel Serv., Inc.*, a district court threw out part of a witness's lay testimony describing how air traffic control systems transmit information because "testimony about *how* equipment works generally requires a foundation of specialized knowledge to produce explanations or interpretations that an untrained layman could not reach from perceiving the same equipment in use."⁹⁸ Despite *Verizon*, the Federal Circuit affirmed this holding in a per curiam opinion.⁹⁹

As an aside, *WNS Holdings* appears to be part of an interesting series of similar holdings spearheaded by Judge Barbara Crabb. For example, Judge Crabb came to the same conclusion in *Fujitsu Ltd. v. Netgear, Inc.* In that case, the court held that four engineers testifying as lay witnesses could testify as to which chipsets they found in the defendant's products, but they could not offer "testimony about how the chipsets function and how those functions relate to any of the pertinent standards at issue in [the] case."¹⁰⁰ The court held that such testimony would "clearly [be] expert testimony,"¹⁰¹ but noted that disputes over the lay/expert issue "are common in the realm of patent litigation."¹⁰² And in *Eugene Baratto, Textures, LLC v. Brushstrokes Fine Art, Inc.*, Judge Crabb's referring magistrate judge cited *WNS Holdings* in reaching the same result, holding that testimony "relating to how the invention is supposed to function and how those functions relate to any of the accused products in this case . . . clearly constitute expert testimony."¹⁰³ By prohibiting descriptions of a device's functionality, these cases force more witnesses to be qualified as experts than the Federal Circuit did in *Verizon*.

Under the holdings discussed here, a lay witness may apparently describe the components of a device he helped develop, but it is unclear whether he may explain how the device functions without crossing the line into expert territory. Again, the lack of a clear rule leaves litigants with much to lose if they rely on the wrong holding or miscalculate how the court will view a particular

96. *Verizon*, 602 F.3d at 1340.

97. However, they should certainly be part of the inquiry, *see* Part IV, *infra*.

98. No. 08-CV-275, 2009 WL 2136961, at *3 (W.D. Wis. July 14, 2009).

99. *WNS Holdings, LLC v. United Parcel Serv., Inc.*, 368 F. App'x. 144 (Fed. Cir. 2010).

100. No. 07-CV-710, 2009 WL 2341810, at *4 (W.D. Wis. July 29, 2009).

101. *Id.*

102. *Id.* at *3.

103. 701 F. Supp. 2d 1068, 1074 (W.D. Wis. 2010) (citation omitted).

witness's testimony.

D. *Testimony Describing Accused Devices*

A final area of testimony that causes confusion over the lay/expert dividing line is descriptions of accused devices. The Federal Circuit itself has been somewhat inconsistent on this point. For example, in *Air Turbine Tech., Inc. v. Atlas Copco AB*, the court affirmed a district court's decision to reject testimony describing an accused device because it was improper expert testimony from a lay witness.¹⁰⁴ In that case, a co-inventor of an automatic braking mechanism for high precision grinding equipment sought to testify about the braking mechanism in the accused device.¹⁰⁵ The Federal Circuit noted that although the witness had "particularized knowledge" about his own invention, it did "not necessarily mean he also ha[d] particularized knowledge and experience in the structure and workings of the accused device."¹⁰⁶

The court in *Air Turbine* seemed to draw a line between percipient knowledge gained in the process of developing an invention versus knowledge gained specifically in preparation for litigation. The witness had taken apart the accused device and found several components that he believed were "exactly like" those in the plaintiff's invention,¹⁰⁷ but for the court, this investigation into the accused device somehow pushed the witness's testimony from the lay category into the expert category. Thus, the court's reliance on the term "particularized knowledge" is somewhat misleading. If the witness could describe the brake systems he helped develop based on his "particularized knowledge," there is no clear reason that same knowledge should be considered "specialized" (and thus expert) when he applied it to the accused device. A better explanation for the outcome is that undertaking an investigation specifically in preparation for litigation is a quintessentially expert function, regardless of whether the investigator applies knowledge gained from longtime employment, from some specialized training, or from a combination of the two.

Complicating the picture even further is the fact that the challenged testimony in *Air Turbine* was not especially complex or technical. For example, the witness testified that he found that "the brake pad that was supported by a spring" and a "multi-sided [guide] post as opposed to a round, circular post."¹⁰⁸ Presumably, those are observations that a layperson or even the jury could make just as easily in the courtroom with the help of demonstratives.

Despite the *Air Turbine* holding, it is clear that there is no hard and fast rule against lay testimony describing accused devices. That is because the Federal Circuit has also affirmed a holding that reached the opposite

104. 410 F.3d 701, 713-14 (Fed. Cir. 2005).

105. *Id.* at 704.

106. *Id.* at 714.

107. *Id.*

108. *Id.*

conclusion. In *Braun Corp. v. Maxon Lift Corp.*, the trial court held that a witness's "extensive personal experience in the wheelchair lift field" and his "personal examination" of the accused device was sufficient to allow him to give lay testimony describing the "accused wheelchair lift, and other technical issues."¹⁰⁹ The Federal Circuit affirmed this holding,¹¹⁰ which is clearly at odds with *Air Turbine*. Although the deferential standard of review for evidentiary decisions may have played a role in these decisions, the conflicting opinions offer little guidance for trial courts facing this issue.

IV. A PROPOSAL FOR HOW TO DISTINGUISH BETWEEN LAY AND EXPERT TESTIMONY

As is clear from the preceding discussion, "[p]atent lawsuits are rife with disputes over whether testimony that is based on personal perceptions and intimate understanding of the invention is particularized or specialized."¹¹¹ For the most part, courts have answered this broader question on an issue-by-issue basis, leading to the conflicts discussed above. These disagreements create uncertainty for litigants, and in many cases, key testimony can be thrown out at the last minute because a party did not designate the witness as an expert.¹¹²

Of course, the Federal Rules of Evidence contain some guideposts for litigants, such as whether the testimony relies on "scientific, technical or other specialized knowledge."¹¹³ But the Federal Rules never define expert testimony, and the Rules have proved inadequate in creating a consistent line of holdings in many patent cases where parties rely on inventors or longtime employees for highly technical or scientific testimony. These witnesses resemble classic experts in that they have technical or scientific backgrounds, but they also resemble regular lay witnesses because often, they merely describe what they did and perceived. Thus, "experts in these in-between cases force a choice between rules that were drafted with only two categories in mind."¹¹⁴

To resolve these conflicts and decrease uncertainty for litigants, courts should develop a clear set of standards for distinguishing between expert and lay testimony. Judge Whyte of the Northern District of California attempted to do just that in *Hynix Semiconductor Inc. v. Rambus Inc.*¹¹⁵ In that case, the court had to decide whether the defendant's former Vice President for Intellectual Property could look through a copy of the patent-in-suit and "find

109. 282 F. Supp. 2d 931, 933-34 (N.D. Ind. 2003).

110. *Braun Corp. v. Maxon Lift Corp.*, 97 F. App'x. 335 (Fed. Cir. 2004).

111. *Eugene Baratto, Textures, LLC v. Brushstrokes Fine Art, Inc.*, 701 F. Supp. 2d 1068, 1074 (W.D. Wis. 2010).

112. See discussion of cases in Part III(A)-(D), *supra*.

113. FED. R. EVID. 701(c).

114. MUELLER & KIRKPATRICK, *supra* note 24, at § 7:6.

115. No. 00-CV-20905, 2009 WL 230039 (N.D. Cal. Jan. 27, 2009).

the support in the application . . . for various features” that were being challenged at trial.¹¹⁶ The patent involved dynamic random access memory (DRAM) interfaces, and the witness’s testimony addressed whether the patent’s specification contained support for technical features such as “the access time register, the latency register, ‘auto-precharge,’ ‘dual edge clocking, and ‘block size.’”¹¹⁷

The plaintiff argued that the witness should have been disclosed as an expert if he wished to offer such highly technical testimony. Judge Whyte began by noting that Rule 702, if “[r]ead literally,” would be “astonishingly broad, especially in the context of patent litigation.”¹¹⁸ A literal interpretation would hold that Rule 702 encompasses “any helpful ‘scientific, technical, or other specialized knowledge.’”¹¹⁹ Judge Whyte continued that there must be “limits to what constitutes ‘expert’ testimony,” because if there were not, “patent litigation would be more astronomically expensive than it already is.”¹²⁰

Judge Whyte did not fashion a new test for expert and lay opinion in *Hynix*, but he did suggest “a general rule of thumb.”¹²¹ Judge Whyte explained that “the court understands ‘expert testimony’ to be testimony that a witness prepares, as opposed to testimony of what a witness observes. For example, it includes opinion testimony based upon a witness’ analysis of facts using methods based on specialized knowledge.”¹²²

Judge Whyte’s approach provides a solid foundation to begin analyzing the lay/expert distinction.¹²³ To expand upon and clarify that basic approach, I

116. *Id.* at *7.

117. *Id.*

118. *Id.* at *10.

119. *Id.* (quoting FED. R. EVID. 701(c)).

120. *Id.*

121. *Id.* at *11.

122. *Id.*

123. Indeed, at least two other courts have cited Judge Whyte’s analysis with approval. In *DR Sys., Inc. v. Eastman Kodak Co.*, the court relied on the fact that a proposed witness admitted that he had no percipient knowledge but would “have to conduct research and analysis before he could provide the requested testimony” in order to conclude that he was an expert witness. No. 09-CV-1625, 2009 WL 2982821, at *3 (S.D. Cal. Sept. 14, 2009). The court therefore excluded the witness’s testimony because he had not been timely disclosed as an expert. *Id.* at *4. And in a fascinating twist on the lay/expert distinction, the court in *Britz Fertilizers, Inc. v. Bayer Corp.* relied on Judge Whyte’s opinion in deciding whether several proposed witnesses who had testified as experts in a prior action involving the plaintiff could testify as lay witnesses regarding their testimony from the prior case. No. 05-CV-287, 2009 WL 1748775 (E.D. Cal. June 17, 2009). The court held that the witnesses could “testify about their personal involvement in the [prior] *Skouti* action, including the opinions they expressed as experts. Contrary to Plaintiff’s argument, the fact that these witnesses were designated as experts in *Skouti* does not alter the percipient nature of their testimony in this action.” *Id.* at *4. However, the witnesses could not “offer their independent opinions” regarding an expert report in the current action because that would involve expert testimony. *Id.*

argue that there are three factors relevant in distinguishing lay from expert testimony: (a) whether the testimony is scientific or technical versus testimony a layperson could offer equally well; (b) whether the witness is testifying from firsthand experience versus testimony that was prepared from secondary sources with litigation in mind; and (c) whether the testimony is based on fact or opinion.

A. *Scientific, Technical or Specialized Knowledge Testimony*

The closest the Federal Rules of Evidence come to a definition of expert testimony is describing it as testimony based on “scientific, technical, or other specialized knowledge.”¹²⁴ This definition is somewhat circular and not particularly helpful—what is needed is a way of determining testimony that relies on scientific, technical or specialized knowledge from testimony that does not.

Despite its circularity, the language is useful because it requires litigants to pay keen attention to what a layman understands. One leading case outside the patent world describes specialized expert knowledge as that which is “well beyond that of the average layperson.”¹²⁵ In *United States v. Ganier*, a police computer technician ran forensic software on the defendant’s computer to produce a grid detailing which documents on the computer included certain search terms.¹²⁶ The court accepted that a layperson might be able to run the forensic software, noting that “[t]he average layperson today may be able to interpret the outputs of popular software programs as easily as he or she interprets everyday vernacular.”¹²⁷ But, the court held, interpreting the results of the specialized forensic software required expert knowledge.¹²⁸

The *Ganier* case is instructive because it shows that the definition of “scientific, technical, or other specialized knowledge” will constantly be shifting. The court acknowledged as much when it stated that “[b]ecause the categorization of computer-related testimony is a relatively new question, comparisons with other areas of expert testimony are instructive.”¹²⁹ The court was trying to grapple with how far the average layperson had come in understanding computers. For example, if the court had decided the case in 1986 instead of 2006, the court probably would not have accepted even the notion that the average layperson would know how to run the forensic computer software. But in 2006, it was only the interpretation of the software’s esoteric results that required expert knowledge.

One example from the patent cases discussed above of testimony that

124. FED. R. EVID. 702, 701(c).

125. *United States v. Ganier*, 468 F. 3d 920, 926 (6th Cir. 2006).

126. *Id.*

127. *Id.*

128. *Id.*

129. *Id.*

clearly would fall into the expert category under this first factor is testimony offering a legal conclusion. The court's holding in *Corning* seems sensible: lay witnesses may testify to the facts that support a legal conclusion, but they may not offer a legal conclusion.¹³⁰ While this may seem like little more than a distinction without a difference in some cases, there is a clear difference between testimony that describes incidents in which the witness was personally involved and testimony that applies legal (and thus often specialized) knowledge to those events to form a legal conclusion.

B. *Testimony Based on Firsthand Experience Versus Testimony Gathered for Trial*

A second factor courts should consider is whether the testimony relies on firsthand, personal experience. Such testimony should generally qualify as lay testimony even if it touches on technical or scientific matters. Conversely, testimony prepared with litigation in mind should generally be considered expert testimony. Thus, in a patent case, an inventor or longtime employee should be able to offer lay testimony describing from firsthand knowledge the steps preceding an invention, the invention itself, its components, and how those components function. But he generally should not be allowed to describe an accused device that he examined for litigation purposes.

The reason that testimony based on firsthand experience should be viewed as lay testimony is that the purposes of enhanced expert disclosure and scrutiny simply do not apply to this kind of testimony. The purpose behind additional disclosure and discovery requirements for experts is to give the opposing party an opportunity to examine the qualifications and methods of the expert for cross-examination. The court's gatekeeping function under *Daubert* provides an additional check to ensure that an expert's testimony meets a certain standard of quality. The concept is that the expert is applying a method or type of knowledge to facts, and both the opposing party and the court play an important role in ensuring that the method is reliable and the results are worthy of presentation to the jury. If neither the opposing party nor the court ever scrutinize the method, the jury may hear testimony that is highly unreliable, and it may be too complex for the jury to identify its weaknesses.

Neither of these checks on a witness's testimony is necessary when an inventor or longtime employee is merely describing what he did and why. First, any lies or distortions about this basic background information will normally be easily exposed by other evidence, such as lab notebooks, other employee witnesses, company memos and emails, and so forth. Second, the percipient witness is not applying any method to the knowledge that he learned; he is simply describing events. Thus, the jurors are fully capable of judging the witness's credibility for themselves, even if the testimony is complex. The

130. See *Corning Inc. v. SRU Biosystems*, No. 03-CV-633, 2005 WL 2465900, at *2 (D. Del. Oct. 5, 2005).

additional hurdles imposed on experts to ensure the quality of their testimony simply are not necessary for inventors or longtime employees offering percipient testimony.

On the other hand, these two checks on testimonial quality are crucial when technical or scientific testimony was gathered with litigation in mind. In order to prepare this kind of testimony, the witness will necessarily rely on a scientific or technical method that needs to be evaluated and probed for accuracy and trustworthiness. Thus, unlike testimony based on firsthand experience, prepared testimony invokes Rule 702's requirements that expert testimony be "the product of reliable principles and methods" and that "the witness has applied the principles and methods reliably to the facts of the case."¹³¹ Furthermore, if an inventor or longtime employee undertakes an investigation specifically with litigation in mind, there may not be the kind of collateral evidence that could corroborate or disprove his testimony, as there would be for the same witness's percipient testimony.

Finally, there is significant support in the Advisory Committee notes to the expert disclosure rule supporting a distinction between prepared testimony and testimony based on firsthand experience. The notes state that the expert report requirement does not apply to "the expert whose information was not acquired in preparation for trial but rather because he was an actor or viewer with respect to transactions or occurrences that are part of the subject matter of the lawsuit. Such an expert should be treated as an ordinary witness."¹³²

One court found further support in the Advisory Committee notes' discussion of treating physicians who later serve as witnesses. The notes state that "[a] treating physician, for example, can be deposed or called to testify at trial without any requirement for a written [expert] report."¹³³ The First Circuit relied on this language in *Gomez v. Rivera Rodriguez* to hold that the expert witness rules do not apply to a "percipient witness who happens to be an expert."¹³⁴

One exception to this general rule is when the testimony itself is simple enough for a layperson to understand. For example, if an inventor dismantles a very simple accused device using simple methods that any layperson could apply, and reaches conclusions about the components of the device that a jury could plainly see, this probably should not be considered expert testimony

131. FED. R. EVID. 702(b), (c).

132. FED. R. CIV. P. 26 advisory committee's note. Note that because this comment applies only to factual testimony, it does not conflict with FED. R. EVID. 704, which states that an expert's firsthand perceptions are a permissible foundation for his opinions or inferences.

133. *Id.*

134. 344 F.3d 103, 113 (1st Cir. 2003); *see also* *Hynix Semiconductor Inc. v. Rambus Inc.*, No. 00-CV-20905, 2009 WL 230039, at *10 (N.D. Cal. Jan. 27, 2009) (citing *Gomez*); *Indem. Ins. Co. of N. Am. v. Am. Eurocopter LLC*, 227 F.R.D. 421, 424 (M.D.N.C. 2005) (citing *Gomez* and holding that "a person with specialized training does not testify as an expert by giving first-hand participant testimony, even though it appears to be expert").

because it would not meet the first factor of scientific, technical or specialized knowledge. Thus, the result in *Braun Corp.*, where the court allowed an inventor to describe an accused wheelchair lift, is probably sound.¹³⁵ Testimony regarding the components of a wheelchair lift may be so simple that it just would not qualify as technical or scientific testimony.

Firsthand knowledge versus knowledge gained in anticipation of litigation is also a useful distinction in deciding when a lay witness may testify about prior art. If the witness is merely describing how the prior art influenced his development of an invention, the testimony should be considered percipient testimony. But if the witness is discussing how he understands the prior art or why his invention was not anticipated by that art, this is more likely expert testimony. For this kind of testimony, the witness is using both technical and legal methods to analyze the prior art instead of merely describing his past motivations and choices. It would therefore be important for the opposing party and the court to have the chance to scrutinize the quality of such testimony through an expert report.

C. *Opinion Testimony Versus Fact Testimony*

A final proposed factor that courts should consider, and probably the one that is most difficult to apply, is whether the testimony is based on facts or opinion. As one evidence treatise noted, “[a] clear line between fact and opinion is impossible to draw. In a sense all testimony to matters of fact is the conclusion of the witness formed from observed phenomena and mental impressions.”¹³⁶ Judge Whyte’s formulation in *Hynix* alludes loosely to distinguishing between fact and opinion for the purposes of defining expert testimony,¹³⁷ but I argue that this should be a core factor in the inquiry.

Whether testimony is fact or opinion should never be dispositive; it should merely be a factor that helps courts apply the proper rule of evidence when the other factors are not determinate. It should not be dispositive because it is clear from the rules that experts may give fact or opinion testimony,¹³⁸ just as lay witnesses may give fact or opinion testimony (subject of course to the requirements of Rule 701 governing lay opinion testimony).

Despite the reality that either type of witness may offer fact or opinion testimony, the Rules of Evidence do hint that opinion testimony is normally the province of experts. First, there is Rule 701 itself, which limits the scope of

135. See discussion of *Braun Corp. v. Maxon Lift Corp.* in Part III(D), *supra*.

136. MICHAEL H. GRAHAM, FEDERAL RULES OF EVIDENCE IN A NUTSHELL 199 (2d ed. 1981)

137. See *Hynix Semiconductor*, No. 00-CV-20905, 2009 WL 230039, at *11 (stating that expert testimony “includes opinion testimony based upon a witness’ analysis of facts using methods based on specialized knowledge”).

138. See FED. R. EVID. 702 advisory committee’s note (stating that although “[m]ost of the literature assumes that experts testify only in the form of opinions,” this assumption is “logically unfounded”).

permissible lay opinion testimony. Furthermore, as previously discussed,¹³⁹ subsection (c) was added to Rule 701 in part to prevent parties from “proffering an expert in lay witness clothing.”¹⁴⁰ It is telling that this amendment is part of Rule 701, which governs lay opinion testimony, not lay fact testimony. A literal reading of Rule 701 thus merely prohibits lay witnesses from offering an “opinion” that is “based on scientific, technical, or other specialized knowledge within the scope of Rule 702”; it does not prohibit factual testimony based on such knowledge.¹⁴¹

A leading evidence treatise analyzed the rules and also found the fact versus opinion distinction useful. As the authors put it, “[t]he subject of [Rule] 701 is the propriety of lay opinion testimony. Implicit in this provision is a distinction between fact and opinion, and the premise is that generally lay witnesses should testify to facts.”¹⁴²

Rule 703 also supports this distinction when it states that “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.” The rule mentions facts that an expert witness perceives firsthand, but the rule itself applies only to “opinion[s].” That the rule has nothing to say about factual expert testimony is an indication that experts typically offer opinions, and lay witnesses typically testify to facts.

Of course, all these indications together do not add up to enough to overcome the clear language of the rules, which unquestionably allow both fact and opinion testimony from both lay and expert witnesses. For example, Rule 702, covering expert witnesses, does not only apply to opinion testimony, but rather to testimony “in the form of opinion or otherwise.” The Advisory Committee notes to the rule state that it is “logically unfounded” to presume that the rule applies only to opinion testimony. And although expert witnesses need not have “personal knowledge” as required by Rule 602, that does not mean that a witness with personal knowledge is automatically a lay witness.

Thus, a hard rule dividing expert and lay testimony on the fact/opinion line would be impossible to square with the Rules of Evidence. But there are enough hints in the rules to make clear that fact and opinion should be part of the inquiry. In close calls over whether testimony relies on technical, scientific or specialized knowledge, or whether testimony comes from firsthand experience, courts should look to whether the testimony is based on fact or opinion as a final factor.

CONCLUSION

In patent cases, deciding whether to use an employee expert or a hired

139. See Part I, *supra*.

140. FED. R. EVID. 701 advisory committee’s note.

141. FED. R. EVID. 701.

142. MUELLER & KIRKPATRICK, *supra* note 24, at § 7:1.

expert is filled with potential benefits and dangers. The employee expert may enjoy more credibility with the jury, his loyalty is more certain, and of course he is much less costly. However, choosing an employee expert opens up discovery dangers and other nuisances.

These dangers and benefits have driven many parties in patent cases to rely on employees or inventors for testimony while refusing to designate them as experts. This course too has its potential upsides and downsides. Precedent is anything but clear on exactly how far an employee or inventor may testify before crossing the threshold into the expert's realm. If he crosses that line, the party offering the witness may see the court throw key testimony out of the case.

Because patent trials frequently rely on highly technical and scientific testimony, these cases have tested the boundaries of expert and lay opinion more frequently than others. As a result, the "distinction between expert and lay witnesses has blurred."¹⁴³ This blurred line has caused conflicting precedent that prevents parties from making an informed, strategic decision on this issue, one that often lies at the heart of their cases.

Courts should resolve this ambiguity and uncertainty by applying a uniform set of factors to distinguish expert from lay testimony. Judge Whyte's thoughtful opinion in *Hynix* and the Federal Rules of Evidence themselves allude to the factors that count in this inquiry: scientific, technical or specialized knowledge; firsthand knowledge versus knowledge gained in view of litigation; and opinion versus fact. It has been my aim to tease out those factors, make them more explicit, and offer a defense for why they are the proper factors to consider. By applying these factors consistently, courts will ensure that lay and expert testimony are treated properly, they will produce more uniform decisions, and future litigants will have a better sense of how to ensure that juries in fact are allowed to hear important evidence.

143. *Id.* at § 7:6.