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Restoring the Promise of Markman: Interlocutory Patent Appeals Reevaluated Post-Phillips v. AWH Corp.

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Restoring the Promise of *Markman*: Interlocutory Patent Appeals Reevaluated Post-*Phillips v. AWH Corp.*

| | |
|--|------|
| INTRODUCTION..... | 1292 |
| I. CLAIM CONSTRUCTION AND THE CREATION OF THE FEDERAL CIRCUIT | 1295 |
| A. <i>The Anatomy of a Patent</i> | 1295 |
| B. <i>The Patent Interpretation Process</i> | 1296 |
| C. <i>The Creation of the Federal Circuit</i> | 1297 |
| II. EVOLVING THEORIES OF CLAIM CONSTRUCTION IN THE FEDERAL CIRCUIT | 1299 |
| A. <i>The Pre-Markman Era</i> | 1299 |
| B. <i>The Markman Cases</i> | 1301 |
| 1. <i>Markman I: Is Claim Construction a Question of Law or Fact?</i> | 1301 |
| 2. <i>Markman II: Is There a Seventh Amendment Right to Trial by Jury in Claim Construction?</i> | 1303 |
| C. <i>The Post-Markman Era: The Nature of Claim Construction Remains Unsettled</i> | 1305 |
| D. <i>Cybor v. FAS Technologies</i> | 1307 |
| 1. <i>Reaffirming De Novo Review</i> | 1307 |
| 2. <i>The Rader Dissent: A Voice of Warning</i> | 1309 |
| III. SHOULD WE ABANDON DE NOVO REVIEW? | 1311 |
| A. <i>Undermining the Promise of Markman: The De Novo Quagmire</i> | 1311 |
| B. <i>Alternatives to De Novo Review</i> | 1313 |
| 1. <i>Judge Mayer’s Two-Tiered Approach</i> | 1313 |
| 2. <i>Judge Rader’s “Functional Approach”</i> | 1317 |
| 3. <i>De Novo Lite: The Bryson-Plager Approach</i> | 1318 |
| C. <i>Phillips v. AWH: A Missed Opportunity</i> | 1319 |
| IV. THE NEED FOR INTERLOCUTORY APPEALS | 1320 |
| A. <i>The Search for Pragmatic Solutions Post-Phillips</i> | 1320 |
| B. <i>Arguments Against Interlocutory Appeals Evaluated</i> | 1322 |
| 1. <i>Can Claim Construction Be Reviewed Without a Trial Record?</i> | 1322 |
| 2. <i>Does the Federal Circuit Have the Resources to Accommodate Interlocutory Appeals?</i> | 1323 |
| C. <i>How Interlocutory Appeals Could Be Implemented</i> | 1325 |
| CONCLUSION..... | 1326 |

INTRODUCTION

For almost ten years, the patent community has been struggling under a system where the central law of each case—the interpretation of the patent claims—is reversed by the Court of Appeals for the Federal Circuit in approximately forty percent of cases.¹ The effect of this high reversal rate is that the district court trial—which should be the focal point of the litigation process—has been relegated to being little more than an expensive audition on the road to the appellate court²—where the parties learn post hoc what the law of the case should have been.

The high reversal rate is due at least in part to the Federal Circuit's rulings in *Markman v. Westview Instruments, Inc. (Markman I)*³ and *Cybor Corp. v. FAS Technologies, Inc.*,⁴ which both held that patent claim construction is a pure question of law with no underlying factual inquiries. Classifying claim construction as a purely legal question, *Markman I* and *Cybor* freed the district courts from having to submit any underlying factual question to the jury prior to claim interpretation.⁵

These decisions held three promises. First, by eliminating lay jury input from often complex patent claim interpretation, *Markman*⁶ promised to promote more accurate and consistent trial court decisions.⁷ Second, by eliminating any need for jury factfinding during claim interpretation, *Markman* freed the district courts to quickly provide a definitive interpretation of the claims in a specialized pre-trial “*Markman* hearing.”⁸ Because claim interpretation is typically outcome-determinative, the patent community hoped that *Markman*'s expedited claim constructions

1. See *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1476 (Fed. Cir. 1998) (en banc) (Rader, J., dissenting).

2. *Id.* at 1477 (“Instead the trial court becomes a ticket to the real center stage, the Court of Appeals for the Federal Circuit.”).

3. 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

4. *Cybor*, 138 F.3d at 1451.

5. See discussion *infra* Part II.B.

6. Throughout this Comment, the Federal Circuit *Markman* decision will be referred to as “*Markman I*” and the United States Supreme Court *Markman* decision, affirming the removal of the jury from the claim construction process, will be referred to as “*Markman II*.” Collectively, the two decisions will be referred to as “*Markman*.” See Part II.B for a discussion of these decisions.

7. See *Markman v. Westview Instruments, Inc. (Markman II)*, 517 U.S. 370, 388 (1996) (noting that “judges, not juries are better suited to find the acquired meaning of patent terms”); *Markman I*, 52 F.3d at 981 (noting that allowing judges and not juries to interpret patents would lend stability and predictability to patent litigation); see also discussion *infra* Part II.B.

8. See discussion *infra* Part II.C.

would promote early settlement of most disputes.⁹ Finally, by denying that claim construction involves any substantial factual inquiries, *Markman* and *Cybor* also promised more accurate decisions by allowing de novo review by expert patent judges in the Federal Circuit.¹⁰

Unfortunately, *Markman* and *Cybor* have had exactly the opposite effect. By allowing the Federal Circuit to exercise unfettered review of the district courts' claim constructions, these decisions have created a substantial disincentive to early settlement.¹¹ The Federal Circuit currently reverses approximately forty percent of all claim constructions and fifty percent of all patent cases in general.¹² This staggering reversal rate has trivialized the trial court proceedings and eliminated incentives to settle until after the definitive claim interpretation is received, well after the trial, at the Federal Circuit.¹³

For years, many practitioners and commentators have argued that the Federal Circuit could promote efficiency and certainty in patent litigation by reining in de novo review and restoring some degree of deference to trial court claim constructions.¹⁴ Curtailing de novo review would preserve the positive effect of providing early, pre-trial claim construction without trivializing trial court proceedings.¹⁵ Indeed, prior to *Markman*, judges often granted deference to trial courts on the factual underpinnings of claim construction.¹⁶ Accordingly, in *Phillips v. AWH Corp.*,¹⁷ the Federal Circuit asked parties to submit briefs on the possibility of scaling back the de novo standard.¹⁸ The question elicited a strong response from

9. See *Cybor*, 138 F.3d at 1475 (Rader J., dissenting) (“*Markman I* potentially promised to supply early certainty about the meaning of a patent claim. This certainty, in turn, would prompt early settlement of many, if not most patent suits.”); see also *Markman I*, 52 F.3d at 989 (Mayer, J., concurring) (“[T]o decide what the claims mean is nearly always to decide the case.”).

10. See William H. Burgess, *Simplicity at the Cost of Clarity: Appellate Review of Claim Construction and the Failed Promise of Cybor*, 153 U. PA. L. REV. 763, 763 (2005) (“[B]y securing de novo review the Federal Circuit would be freer to lead by example and could ensure consistency and uniformity in claim construction by taking the issue for itself.”).

11. See discussion *infra* Part III.D.2.

12. *Id.*

13. *Id.*

14. See discussion *infra* Part III.

15. See *id.*

16. See discussion *infra* Part II.A.

17. 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

18. See *id.* at 1328 (“In our order granting rehearing en banc, we asked the parties to brief various questions, including the following: ‘Consistent with the Supreme Court’s

the patent community, which filed over thirty amicus briefs on the question.¹⁹ Despite the arguments of several prominent amici curiae that some degree of deference would be beneficial,²⁰ the Federal Circuit, without comment, refused to revisit its holdings in *Markman I* and *Cybor*.²¹

In light of the *Phillips* decision, it appears that de novo review of claim construction will be the law of the Federal Circuit for the foreseeable future.²² The focus now becomes finding ways to work within the current *Markman-Cybor* standard to restore efficiency and predictability to patent litigation. One noninvasive solution would be for the Federal Circuit to begin reviewing claim construction on an interlocutory basis.²³ The interlocutory appeal solution is not a novel idea. Other commentators have previously argued that, in light of the Federal Circuit's high reversal rate, regular interlocutory appeals

decision in *Markman [II]* and our en banc decision in *Cybor* . . . is it appropriate for this court to accord any deference to any aspect of trial court claim construction rulings? If so, on what aspects, in what circumstances, and to what extent?").

19. *Id.* at 1330 (Mayer, J., dissenting) (noting that the possibility of restoring deference to the district courts had "whipp[ed] the bar into a frenzy of expectation"); see also Dennis Crouch, *Defining Your Terms*, PAT. WORLD, Dec. 2004/Jan. 2005, at 10, 10, available at http://patentlaw.typepad.com/patent/files/dennis_crouch_paper_on_phillips_v.%20AWH (reviewing the amicus briefs filed in *Phillips*).

20. See, e.g., Brief for the United States as Amicus Curiae at 21–23, *Phillips*, 415 F.3d 1303 (No. 03-1269), available at http://patentlaw.typepad.com/patent/files/govt_phillips_brief.pdf (noting the detrimental effects of the Federal Circuit's high reversal rate and recommending deference to the trial courts); Brief of Amicus Curiae Intellectual Property Owners Association at 15, *Phillips*, 415 F.3d 1303 (No. 03-1269), available at http://www.ipo.org/Template.cfm?Section=IPO_Amicus_Briefs&CONTENTID=16280&TEMPLATE=/ContentManagement/ContentDisplay.cfm (advocating deference to the trial courts when extrinsic evidence must be employed in claim construction); Brief of Amicus Curiae International Trade Commission Trial Lawyers Association at 18–23, *Phillips*, 415 F.3d 1303 (No. 03-1269), available at http://patentlaw.typepad.com/patent/files/itctla_amicus_br.PDF (advocating deference to trial court factual findings); Brief for Amicus Curiae American Intellectual Property Law Association in Support of Neither Party at 18–23, *Phillips*, 415 F.3d 1303 (No. 03-1269), available at <http://patentlaw.typepad.com/patent/files/AIPLA.pdf> (advocating deference to the trial court in the factual elements of claim construction); Brief of Amicus Curiae Federal Circuit Bar Association at 7, *Phillips*, 415 F.3d 1303 (No. 03-1269), available at <http://patentlaw.typepad.com/patent/files/FCBA.pdf> (claim construction may require factual findings which should be reviewed for clear error). But see Brief for Amicus Curiae The Association of the Bar of the City of New York at 14–18, *Phillips*, 415 F.3d 1303 (No. 03-1269), available at http://patentlaw.typepad.com/patent/files/new_york_city_association_of_the_bar.pdf (arguing that deference to the trial court's claim construction findings is blocked by procedural and practical obstacles).

21. *Phillips*, 415 F.3d at 1328.

22. See *infra* note 204.

23. See *infra* note 205.

would help promote predictability and efficiency in patent litigation.²⁴ Although their earlier work was compelling, the forcefulness of their arguments was tempered by the possibility that the Federal Circuit might instead implement a less drastic solution—curtailing the de novo review standard in favor of deference to the trial courts. However, the recent *Phillips* decision established that the Federal Circuit will continue to exercise de novo review for the foreseeable future.²⁵ In light of *Phillips*, the need for interlocutory appeals has acquired new salience and should be reconsidered as a pragmatic means of restoring the promise of *Markman*.

Part I of this Comment describes the basic claim interpretation process and the creation of the Federal Circuit. Part II traces the contentious development of the current de novo regime in place at the Federal Circuit. Part III evaluates the detrimental effects of de novo review and evaluates several alternative standards of review proposed by the various Federal Circuit judges. Part IV argues that, in light of the *Phillips* court's unwillingness to rein in the de novo standard of review, interlocutory appeals should be reexamined as a pragmatic way to restore stability to patent litigation. Additionally, Part V evaluates several arguments against interlocutory appeals and other methods of implementation. This Comment concludes that the most viable solution, in light of *Phillips*, is the promulgation of a procedural rule specifically making claim construction reviewable on an interlocutory basis.

I. CLAIM CONSTRUCTION AND THE CREATION OF THE FEDERAL CIRCUIT

A. *The Anatomy of a Patent*

In the most basic sense, a patent is a governmental grant to an inventor of the exclusive right to make, use, or sell her invention.²⁶ Typically a patent begins with a brief summary of the invention (the

24. See, e.g., Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 37 (2001) (providing a statistical analysis of the Federal Circuit's reversal rates and arguing that the Federal Circuit should grant interlocutory review of claim construction decisions); Craig Allen Nard, *Process Considerations in the Age of Markman and Mantras*, 2001 U. ILL. L. REV. 355, 357 (arguing in favor of a discretionary procedural rule making claim construction decisions subject to discretionary interlocutory appeal).

25. See *infra* note 204.

26. Greg J. Michelson, Note, *Did the Markman Court Ignore Fact, Substance, and the Spirit of the Constitution in Its Rush Toward Uniformity?*, 30 LOY. L.A. L. REV 1707, 1709 (1997) (citing 35 U.S.C. § 271(a) (1994)).

abstract) and any technical drawings. The inventor then must include a “specification section” that includes a description of the prior innovations in the field and a “written description [of the invention] . . . in such full, clear, and exact terms . . . , as to enable any person skilled in the art or science, [of which it is a branch] . . . to make . . . and use the same.”²⁷ As the specification section typically contains a broader description of the technology than what the inventor’s innovation encompasses, since 1836 Congress has required that the inventor explicitly designate the “part, improvement, or combination which he claims as his own.”²⁸ These “claims” define the “metes and bounds” of the claimed invention just as a deed sets forth real property boundaries.²⁹ Because the claims define the precise scope of patent protection, they are of vital importance in any patent litigation.³⁰

B. *The Patent Interpretation Process*

Because the patent claims define the scope of patent protection, the first step of patent infringement analysis is to interpret the meaning of the claims that have allegedly been infringed.³¹ “Like the interpretation of a statute or a contract, claim construction is the process by which a court determines the meaning of the . . . patent claim[s] for the purposes of the litigation.”³² The court’s goal in claim construction is not to “rewrite the claims, [but rather] to give effect to the terms chosen by the patentee.”³³ Claim construction is almost always the most important phase of any patent litigation, as one

27. The Patent Act of 1836, ch. 357, § 6, 5 Stat. 117, 199 (repealed 1870); see also Dave A. Ghatt & Timothy B. Kang, *Claim Interpretation: A Regression to Uncertain Times*, 84 J. PAT. & TRADEMARK OFF. SOC’Y 456, 458 (2002) (summarizing the origins of the patent claim requirement).

28. The Patent Act of 1836, § 6; cf. 35 U.S.C. § 112(2) (2000) (requiring that the patent claims “particularly point[] out and distinctly[] claim the subject matter which the applicant regards as his invention”); see also Ghatt & Kang, *supra* note 27, at 458 (summarizing the origins of the patent claim requirement).

29. *In re Vamco Mach. & Tool, Inc.*, 752 F.2d 1564, 1577 n.5 (Fed. Cir. 1985); see also *Smith Int’l Inc. v. Hughes Tool Co.*, 718 F.2d 1573, 1579 n.2 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 996 (1983) (explaining that the patent claims typically follow the specification in a distinct “claims section”).

30. See, e.g., John F. Duffy, *On Improving the Legal Process of Claim Interpretation: Administrative Alternatives*, 2 WASH. U. J.L. & POL’Y 109, 109 (2000) (noting that claim interpretation is “frequently the central issue in infringement litigation”); Giles S. Rich, *Extent of Protection and Interpretation of Claims—American Perspectives*, 21 INT’L REV. PROP. & COPYRIGHT L. 497, 499 (1990) (“The name of the game is the claim.”).

31. *Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1353 (Fed. Cir. 1999).

32. See Burgess, *supra* note 10, at 767.

33. *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1364 (Fed. Cir. 1999).

Federal Circuit judge has observed: “to decide what the claims mean is nearly always to decide the case.”³⁴ Following the claim construction, the parties will often settle or the court will enter summary judgment if the accused device either clearly does or does not infringe the patent.³⁵ If the parties proceed through the trial, it is the factfinder’s responsibility to compare the accused device to the court’s interpretation of the patent claims and determine if the defendant has infringed the patent.³⁶ The jury, not the court, typically performs this function.³⁷

C. *The Creation of the Federal Circuit*

The federal courts traditionally have had exclusive jurisdiction over patent cases. Patent cases are tried in the district courts.³⁸ Prior to 1982, patent appeals were handled in the various regional circuits with each circuit developing its own patent law.³⁹ Some district court and appellate court judges, viewing patents as undesirable monopolies, routinely invalidated patents or construed the claims so narrowly that there could be no infringement.⁴⁰ Other judges took a

34. *Markman I*, 52 F.3d 967, 989 (Fed. Cir. 1995) (en banc) (Mayer, J., concurring), *aff’d*, 517 U.S. 370 (1996); *cf.* William F. Lee & Anita K Krug, *Still Adjusting to Markman: A Prescription for the Timing of Claim Construction Hearings*, 13 HARV. J.L. & TECH. 55, 59 (1999) (noting that *Markman* was expected to result in an increased number of summary judgments).

35. *See Burgess*, *supra* note 10, at 768 (“[When] the trial court’s claim construction either clearly does or does not encompass the infringer’s device . . . it becomes unnecessary to proceed further . . .”).

36. *Markman I*, 52 F.3d at 976.

37. Despite skepticism about the lay jury’s ability to comprehend and adjudicate patent cases, jury demands are made in seventy-eight percent of patent cases. Kimberly A. Moore, *Jury Demands: Who’s Asking?*, 17 BERKELEY TECH. L.J. 847, 847 (2002). Although either plaintiff or defendant may demand a jury trial, *see* FED. R. CIV. P. 38(b), the plaintiff is far more likely to make the demand. Moore, *supra*, at 855 tbl.1 (noting that the plaintiff demands a jury trial in seventy-one percent of patent cases, compared with twenty-nine percent of cases in which defendants make the request). The plaintiff is more likely to demand a jury trial because of the widespread belief that juries are pro-patentee. Indeed juries find for the patentee in sixty-three percent of cases, compared with only forty-nine percent for bench trials. *Id.* at 874 tbl.4 (noting previous research) (citing Kimberly A. Moore, *Judge, Juries, and Patent Cases—An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365, 367–69 (2000)); *see also* ADAM B. JAFFE & JOSH LERNER, *INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT* 124–25 (2004) (noting the increased prevalence of jury trials and the general perception that juries have a pro-patentee bias).

38. JAFFE & LERNER, *supra* note 37, at 98.

39. *Id.*

40. Simone A. Rose, *Patent “Monopolyphobia”: A Means of Extinguishing the Fountainhead?*, 49 CASE W. RES. L. REV. 509, 527 (1999).

much more permissive view of patents.⁴¹ By the early 1980s, the different regional circuits had developed disparate reputations for being particularly favorable or unfavorable to the patentee.⁴² For example, between 1953 and 1977, patents were found valid and infringed in less than ten percent of the cases heard on appeal in the Eighth Circuit.⁴³ In the Tenth Circuit, this number was almost sixty percent.⁴⁴ Forum shopping was rampant.⁴⁵ The high rates of patent invalidation and the disparities between the regional circuits' patent jurisprudence cheapened the value of patents and restricted both technical innovation and economic development.⁴⁶

In response to these concerns, Congress created the Court of Appeals for the Federal Circuit in 1982 and gave it a mandate to bring greater uniformity to patent law.⁴⁷ Congress gave the Federal

41. See *infra* note 45.

42. Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 7 (1989). An apocryphal story is told of then-Second Circuit Court of Appeals Judge Thurgood Marshall. While Judge Marshall was visiting Senators in preparation for his Supreme Court confirmation hearing, one well-known Senator asked him about his views on patents. The judge reportedly responded, "I haven't given patents much thought, Senator, because I'm from the Second Circuit and as you know we don't uphold patents in the Second Circuit." See Gerald J. Mossinghoff, *Side Bar: The Creation of the Federal Circuit*, in PRINCIPLES OF PATENT LAW 30, 31 (Donald S. Chisum et al. eds., 2d ed. 2001).

43. JAFFE & LERNER, *supra* note 37, at 100 fig.4.1.

44. *Id.*

45. Dreyfuss, *supra* note 42, at 7. Between 1945 and 1957, "a patent was twice as likely to be held valid and infringed in the Fifth Circuit than in the Seventh Circuit, and almost four times more likely to be enforced in the Seventh Circuit than in the Second Circuit." *Id.* "[A] request to transfer a patent infringement action from Texas, in the Fifth Circuit, to Illinois, in the Seventh Circuit, would be bitterly fought . . ." *Id.*

46. See Michael S. Mireles, Jr., *The United States Patent Reform Quagmire: A Balanced Proposal*, 6 MINN. J.L. SCI. & TECH. 709, 724 (2005) (noting that prior to the formation of the Federal Circuit, "[i]nventors and capitalists were unsure of whether to invest in the research and development of a particular product or even bear the costs of prosecuting a patent because it was unclear whether they will [sic] recoup the money invested in creation of that product"); see also *Industrial Innovation and Patent and Copyright Law Amendments: Hearings Before the Subcomm. on Courts, Civil Liberties, and the Administration of Justice of the H. Comm. on the Judiciary on H.R. 6033, H.R. 6934, H.R. 3806, and H.R. 2414*, 96th Cong., 2d Sess. 574-75 (1980) (statement of Sidney A. Diamond, Comm'r of Patents and Trademarks); The Sixth Annual Judicial Conference of The United States Court of Customs and Patent Appeals, 84 F.R.D. 429, 471-75 (1979) (comments of Robert Benson).

47. H.R. REP. NO. 97-312, at 20-23 (1981); see also *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 (Fed. Cir. 2005) (en banc) (Mayer, J. dissenting); *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1455 (Fed. Cir. 1998) (en banc) (noting that the Federal Circuit was created to "provide[] national uniformity [in] the construction of patent claims"); Dreyfuss, *supra* note 42, at 6-7; Ninth Annual Judicial Conference of the United States Court of Customs and Patent Appeals, 94 F.R.D. 350, 359 (1982) (statement of Representative Kastenmeier).

Circuit exclusive jurisdiction over patent appeals.⁴⁸ Although the Federal Circuit is largely regarded as a great improvement over the earlier regional appellate system, the Federal Circuit has not lived up to its congressional mandate in certain areas.⁴⁹

II. EVOLVING THEORIES OF CLAIM CONSTRUCTION IN THE FEDERAL CIRCUIT

A. *The Pre-Markman Era*

One area where the Federal Circuit has created, rather than settled, controversy is in the field of claim construction. Early Federal Circuit cases were unclear as to whether claim construction is a legal, factual, or mixed issue.⁵⁰ Two divergent theories of claim construction emerged from the Federal Circuit: that claim construction is a purely legal question and that claim construction is a mixed question of fact and law. The former theory was expressly endorsed in the Federal Circuit's first case reviewing claim construction, *SSIH Equipment S.A. v. United States International Trade Commission*.⁵¹ Numerous Federal Circuit cases followed the same theory.⁵² Later decisions, however, endorsed the view that claim construction might involve preliminary factual inquiries. The

48. The Federal Circuit is "the lone appellate court in the federal system whose jurisdiction is based on subject matter rather than geography." Burgess, *supra* note 10, at 766; see also Ashley B. Summer, Note, *Aerojet Takes a Dive After over Twelve Years of Flight*, 54 S.C. L. REV. 1131, 1131-34 (2003) (summarizing the creation of the Federal Circuit).

49. See, e.g., R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105, 1174 (2004) (stating that, while the Federal Circuit has not been an "unqualified success," it is "moving in the right direction"); see also Phillips v. AWH Corporation—*Revisiting the Rules of Claim Construction: Still No Magic Formula*, FENWICK & WEST, LLP, July 13, 2005, at 2, http://www.fenwick.com/docstore/publications/Litigation/Litigation_Alert_07-13-05.pdf ("Phillips is a reminder to us all that even after 200 years, the law of patents in the United States has not yet settled on some very fundamental points.").

50. See Matthew R. Hulse, *Cybor v. FAS Technologies, Inc.*, 14 BERKELEY TECH. L.J. 87, 88 (1999).

51. 718 F.2d 365, 376 (Fed. Cir. 1983) ("With respect to infringement, the question of 'what is the thing patented' is one of law, while the question 'has that thing been constructed [made], used or sold' by the alleged infringer is a factual issue . . ."); see also Lee & Krug, *supra* note 34, at 62-67 (discussing the inconsistency in the Federal Circuit's early claim construction cases).

52. See, e.g., *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 822-23 (Fed. Cir. 1992); *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 986 (Fed. Cir. 1988); *SRI Int'l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1118-22 (Fed. Cir. 1985) (en banc); *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1569-71 (Fed. Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 770-71 (Fed. Cir. 1983).

first Federal Circuit case to advocate limited jury involvement in claim construction was *McGill Inc. v. John Zink Co.*⁵³ In *McGill*, the Federal Circuit affirmed *SSIH*'s central holding that claim construction is fundamentally an issue of law, but then held that the judge can only resolve the issue when the language of the claims is clear and readily determinable.⁵⁴ If extrinsic evidence becomes necessary to interpret the claim, the court held that the jury should be allowed to determine its credibility and meaning.⁵⁵ Therefore, *McGill* is perhaps best viewed not as being in direct conflict with *SSIH*, but rather as crafting a narrow exception to it—that the jury may assist the court in evaluating extrinsic evidence of a claim's meaning.

Over the next decade, the majority of Federal Circuit decisions, relying upon *SSIH*, applied de novo review to claim construction.⁵⁶ However, a small number of cases, citing *McGill*, endorsed the "extrinsic evidence" exception for jury involvement.⁵⁷ Other Federal Circuit decisions began to go even further in allowing jury involvement. For example, in *Tol-O-Matic, Inc. v. Proma Produkt-Und Marketing Gesellschaft m.b.H.*,⁵⁸ the court went so far as to advocate jury input any time a claim is "unclear, subject to varying interpretations, or ambiguous."⁵⁹ *Tol-O-Matic* thus moved beyond the narrow "extrinsic evidence" exception and, instead, implicitly endorsed the view that claim construction is a mixed legal and factual inquiry. Thus, over a decade after *SSIH* and *McGill*, the degree of deference owed to claim construction remained an unsettled question in the Federal Circuit.

53. 736 F.2d 666 (Fed. Cir. 1984).

54. *Id.* at 671-72.

55. *Id.* at 672. These jury determinations were not reviewable de novo. See *Bio-Rad Labs., Inc. v. Nicolet Instrument Corp.*, 739 F.2d 604, 614 (Fed. Cir. 1984) (holding that the Federal Circuit should defer to the jury's claim constructions unless "reasonable jurors could [not] have interpreted the claim in the manner presumed").

56. See *Read Corp.*, 970 F.2d at 821-22.

57. See, e.g., *Palumbo v. Don-Joy Co.*, 762 F.2d 969, 974 (Fed. Cir. 1985) (holding that when the meaning of a term is disputed and extrinsic evidence is required to determine its meaning, an underlying factual question arises, and interpretation of that claim should be submitted to the jury), *overruled by Markman I*, 52 F.3d 967 (Fed. Cir. 1995) (en banc).

58. 945 F.2d 1546 (Fed. Cir. 1991)

59. *Id.* at 1549-50.

B. *The Markman Cases*

1. *Markman I*: Is Claim Construction a Question of Law or Fact?

In 1995, in *Markman I*, the Federal Circuit attempted to settle the confusion regarding the nature of claim construction.⁶⁰ Sitting en banc, the Federal Circuit held that claim construction is a pure legal inquiry with no underlying factual issues.⁶¹ Consequently, jury input is never necessary in claim construction,⁶² and claim construction is reviewable de novo on appeal.⁶³ *Markman I* promised to bring early certainty to patent litigation and promote settlement of cases by facilitating pretrial claim construction in specialized *Markman* hearings. The ruling also promised improved accuracy by allowing for unfettered expert review by the Federal Circuit.⁶⁴

Markman I had its origins in a dispute over a drycleaning inventory control system patent.⁶⁵ The novel feature of plaintiff Markman's drycleaning system was its ability to monitor "inventory" throughout the cleaning process and generate reports about an item's location and status.⁶⁶ Westview developed a drycleaning system that recorded an inventory of receivables, but did not track and record the locations of the actual items of clothing.⁶⁷ Markman sued Westview for patent infringement.⁶⁸ At trial, the jury rendered a verdict for Markman.⁶⁹ Westview moved for judgment as a matter of law, arguing that the term "inventory" in the claims in Markman's patent encompassed both cash receipts and articles of clothing.⁷⁰ Since its product did not track items of clothing, Westview argued, the jury clearly erred in finding infringement.⁷¹ The trial judge agreed and granted Westview's motion.⁷²

The Federal Circuit, in affirming the trial court's ruling, held that the construction of patent claims is a clear question of law to be decided exclusively by the judge and expressly disavowed all contrary

60. See *Markman I*, 52 F.3d 967, 976–79 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

61. *Id.* at 979.

62. *Id.* at 976–77.

63. *Id.*

64. See *infra* notes 105–07 and accompanying text.

65. *Markman II*, 517 U.S. 370, 374 (1996).

66. *Id.*

67. *Id.* at 375.

68. See *id.* at 374–75.

69. *Id.* at 375.

70. *Id.*

71. *Id.*

72. *Id.*

authority.⁷³ The Federal Circuit based its decision on three doctrinal considerations. First, the Federal Circuit reasoned that claim construction is a question of law because “the construction of written evidence is exclusively within the court.”⁷⁴ Furthermore, because a patent is a “fully-integrated written instrument,”⁷⁵ it requires no extrinsic factual supplementation and is “uniquely suited for having its meaning and scope determined entirely by a court.”⁷⁶ Finally, the Federal Circuit noted that a patent is a governmental grant of rights to the patentee; claim construction, therefore, is merely an explanation of legal rights granted in the patent.⁷⁷

The Federal Circuit quickly dismissed the possibility that claim construction, although essentially a legal matter, might involve substantial factual findings.⁷⁸ While acknowledging that judges frequently consult extrinsic evidence and even expert witnesses for assistance in interpreting claims,⁷⁹ the Federal Circuit held that these activities did not constitute “fact finding.”⁸⁰ The court, in a distinction that continues to escape many,⁸¹ dismissed the possibility that claim construction might require “making factual evidentiary findings.”⁸² Rather, the court simply took note of extrinsic evidence that it “[found] helpful” to “assist” in the claim construction process.⁸³

As a matter of policy, the Federal Circuit reasoned that judges, and not juries, should construe claims so as to lend stability and predictability to the patent system.⁸⁴ Allowing judges, who are trained in the law and experienced in document interpretation, to interpret patent claims would eliminate many of the inconsistencies that result from putting complex technical issues before the jury.⁸⁵

73. *Markman I*, 52 F.3d 967, 976–77 (Fed.Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

74. *Id.* at 978 (quoting *Levey v. Gadsby*, 7 US (3 Cranch) 180, 186 (1805)).

75. *Id.*

76. *Id.*

77. *Id.*

78. *Id.*

79. *Id.* at 980.

80. *Id.* at 981.

81. See, e.g., Cheryl L. Johnson, *Was Markman Wrong in Tasking Judges with Claim Construction? The Promises and the Reality*, (PLI Order No. 3027, July 2004), available at http://www.ssd.com/files/tbl_s29Publications/FileUpload5689/9076/ArtMarkman082004.pdf (questioning *Markman*'s analysis); see also *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1474 (Fed. Cir. 1998) (en banc) (Rader, J., dissenting) (“As a matter of logic, this instruction is difficult to grasp.”).

82. *Markman I*, 52 F.3d at 981.

83. *Id.*

84. *Id.*

85. *Id.*

The court's holding that claim construction should not go to the jury seemed to comport with Congress's mandate that the Federal Circuit take affirmative steps to lend stability to patent law.⁸⁶ Having established that claim construction is a question of law, the Federal Circuit went on to hold that claim construction is reviewable *de novo*.⁸⁷

2. *Markman II*: Is There a Seventh Amendment Right to Trial by Jury in Claim Construction?

Markman appealed to the Supreme Court, which granted certiorari on the narrow question of whether the Seventh Amendment requires claim construction to be tried by a jury.⁸⁸ The Seventh Amendment does not actually create a right to trial by jury, but rather preserves any jury rights that already existed under English common law when the Seventh Amendment was adopted in 1791.⁸⁹ A historical analysis of the English common law is, therefore, the touchstone of all Seventh Amendment jury claims.⁹⁰ Justice Souter,

86. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 (Fed. Cir. 2005) (en banc); see also H.R. REP. NO. 97-312, at 20 (1981) ("The new Court of Appeals of the Federal Circuit will provide nationwide uniformity in patent law, will make the rules applied in patent litigation more predictable and will eliminate the expensive, time-consuming and unseemly forum-shopping that characterizes litigation in the field."); Dreyfuss, *supra* note 42, at 6-7 (describing the creation of the Federal Circuit); Summer, *supra* note 48, at 1131-34 (same).

87. *Markman I*, 52 F.3d at 979. The majority's decision in *Markman I* inspired several spirited dissenting and concurring opinions. Judge Mayer, for example denounced the majority opinion as the "bizarre" result of "insular dogmatism inspired by unwarranted elitism." *Id.* at 989 (Mayer, J., concurring). Judge Mayer predicted that the majority's "revisionist reading of precedent to loose claim interpretation from its factual foundations" would have "profoundly negative consequences." *Id.* at 990. Judge Mayer denounced what he viewed as the majority's attempt to create a "'complexity exception' to the Seventh Amendment." *Id.* at 993.

88. *Markman II*, 515 U.S. 1192, 1192 (1995). Markman argued that the trial court's grant of judgment as a matter of law rendered the jury's claim construction a nullity and thereby violated his Seventh Amendment right to trial by jury. *Markman* is regarded not only as one of the seminal decisions in the field of patent law but also as the leading opinion governing the roles of judge and jury under the Seventh Amendment. See Paul F. Kirgis, *The Right to a Jury Decision on Questions of Fact Under the Seventh Amendment*, 64 OHIO ST. L.J. 1125, 1136 (2003).

89. *Balt. & Carolina Line, Inc. v. Redman*, 295 U.S. 654, 657 (1935) ("The right of trial by jury thus preserved is the right which existed under the English common law when the Amendment was adopted.")

90. See Margaret L. Moses, *What the Jury Must Hear: The Supreme Court's Evolving Seventh Amendment Jurisprudence*, 68 GEO. WASH. L. REV. 183, 187-92 (2000) (discussing the evolution of the historical test for determining when the Seventh Amendment right to trial by jury applies).

writing for a unanimous Court, utilized a two-step analysis.⁹¹ In the first step, the Court asked “whether [the claim is] dealing with a cause of action that either was tried at law at the time of the founding or is at least analogous to one that was.”⁹² Then, if the action was tried at law, the Court asked “whether the particular trial decision must fall to the jury in order to preserve the substance of the common-law right as it existed in 1791.”⁹³ On the first issue, the Court needed only two sentences to conclude that because patent infringement actions were tried to a jury in 1791, the Seventh Amendment clearly preserved the general right to trial by jury in patent actions.⁹⁴

The Court then turned to the more troubling second question—whether jury input in the claim construction process is necessary “in order to preserve the substance of the . . . right.”⁹⁵ Almost immediately the Court found that a direct historical analysis could not provide a definitive answer.⁹⁶ Patent claims were not recognized by statute until 1836 and were not a formal requirement until 1870.⁹⁷ The Court was, therefore, forced to examine the issue by way of analogy.⁹⁸ The Court noted that “[t]he closest 18th-century analogue of modern claim construction seems . . . to have been the construction of [the] specifications.”⁹⁹ The “smattering”¹⁰⁰ of 18th-century patent cases available “established [no] jury practice sufficient to support an argument by analogy that today’s construction of a claim should be a guaranteed jury issue.”¹⁰¹

91. This two-step analysis was first introduced in *Tull v. United States*, 481 U.S. 412, 417–18 (1958). See Kirgis, *supra* note 88, at 1137.

92. *Markman II*, 517 U.S. at 376.

93. *Id.*

94. *Id.* at 377 (“[T]here is no dispute that infringement cases today must be tried to a jury, as their predecessors were more than two centuries ago.”); see Kirgis, *supra* note 88, at 1137.

95. *Markman II*, 517 U.S. at 376.

96. Kirgis, *supra* note 88, at 1137.

97. See Nichole Biglin, *Enablement: For the Judge or the Jury?* *Markman v. Westview Instruments, Inc.’s Analysis Applied*, 52 *DRAKE L. REV.* 145, 154 (2003–2004).

98. *Markman II*, 517 U.S. at 378–79; Biglin, *supra* note 97, at 154.

99. *Markman II*, 517 U.S. at 379. Prior to the requirement that a patent contain distinct claims, the scope of patent protection was determined by the court’s interpretation of the description of the invention in the specification section. *Id.*

100. *Id.*

101. *Id.* at 380. One historian cited by the *Markman II* Court observed that judges of the late eighteenth century consistently kept the “writings out of the jury’s hands and reserve[d] it for themselves” as a “safeguard” against the possibility that the jury might “constru[e] or refin[e] it at pleasure.” *Id.* at 382 n.7 (quoting 9 JOHN HENRY WIGMORE, *EVIDENCE IN TRIALS AT COMMON LAW* § 2461 (James H. Chadborn rev. ed. 1981)).

Having determined that the historical analysis did not support the right to a jury trial on claim construction, the Court agreed to “look elsewhere” for evidence that claim construction should go to the jury.¹⁰² The Court examined several “functional considerations,”¹⁰³ noting that “when an issue ‘falls somewhere between a pristine legal standard and a simple historical fact, the fact-law distinction at times has turned on a determination that, as a matter of the sound administration of justice, one judicial actor is better positioned than another to decide the issue in question.’”¹⁰⁴ Citing the “highly technical”¹⁰⁵ nature of patents, and noting that “[t]he construction of written instruments is one of those things that judges often do and are likely to do better than jurors unburdened by training in exegesis,”¹⁰⁶ the Court found that “judges, not juries are the better suited to find the acquired meaning of patent terms.”¹⁰⁷ While acknowledging that claim construction is a “mongrel practice”¹⁰⁸—“fall[ing] somewhere between a pristine legal standard and a simple historical fact”¹⁰⁹—the Court held “the construction of a patent, including terms of art within its claim, is exclusively within the province of the court.”¹¹⁰

C. *The Post-Markman Era: The Nature of Claim Construction Remains Unsettled*

Following the *Markman* decisions, district courts instituted several procedural changes to effectuate the promise of *Markman*—

102. *Id.* at 384.

103. Some observers have argued that these policy determinations and not the actual historical analysis were the driving forces behind the Court’s decision. *See, e.g.*, *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1464 (Fed. Cir. 1998) (en banc) (Mayer, J., concurring) (“[The Supreme Court] decided as a matter of policy that judges, not juries, are better able to perform this task [claim construction] given the complexity of evidence and documentation. This was a perilous decision of last resort.”).

104. *Markman II*, 517 U.S. at 388 (quoting *Miller v. Fenton*, 474 U.S. 104, 114 (1985)).

105. *Id.* at 389.

106. *Id.* at 388.

107. *Id.*

108. *Id.* at 378.

109. *Id.* at 388 (quoting *Miller*, 474 U.S. at 114). The Court was not persuaded by *Markman*’s argument that when a judge uses extrinsic evidence, in particular expert witness testimony, she will be making credibility determinations that should be submitted to the jury. *Id.* at 389. Justice Souter rightfully admitted that credibility determinations may be made during claim construction. *Id.* Nevertheless, he contended that a judge must still construe the claims as a matter of law because “any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document.” *Id.*; *see* Frank M. Gasparo, *Markman v. Westview Instruments, Inc. and Its Procedural Shock Wave: The Markman Hearing*, 5 J.L. & POL’Y 723, 738–39 (1996).

110. *Markman II*, 517 U.S. at 372.

expedited claim construction.¹¹¹ Foremost among these was the implementation of pretrial *Markman* hearings specifically conducted for the purpose of claim construction.¹¹² In these *Markman* hearings, the parties present arguments and evidence supporting their version of the claims.¹¹³ These pretrial hearings promise to promote efficiency in patent law by providing the parties with the all-important claim construction determination early in the litigation process.¹¹⁴ The *Markman* hearing quickly became a common feature in patent litigation.¹¹⁵

Markman I and *II* did, however, leave many unanswered questions. Foremost among these concerns was the propriety of de novo review. Because the Supreme Court's decision resolved only the narrow issue of whether the Seventh Amendment requires that the claim construction is to be decided by a jury, the ensuing two years were marked by fierce disagreement among the judges of the Federal Circuit as to whether deference is ever due, under Rule 52(a),¹¹⁶ to the "factual underpinnings"¹¹⁷ of the district courts' claim constructions.¹¹⁸ Despite the Federal Circuit's holding in *Markman I* that claim construction is reviewable de novo, several of the Federal Circuit judges seized on the Supreme Court's description in *Markman II* of claim construction as a "mongrel practice"¹¹⁹ and continued to grant deference to the allegedly factual underpinnings of claim construction.¹²⁰ Other Federal Circuit judges, following *Markman I*,

111. See generally Gasparo, *supra* note 109 (discussing the implementation of the first *Markman* hearing).

112. *Id.* at 725.

113. *Id.* at 756.

114. *Id.* at 725–26.

115. Michael A. O'Shae, *A Changing Role for the Markman Hearing: In Light of Festo IX, Markman Hearings Could Become M-F-G Hearings Which Are Longer, More Complex and Ripe for Appeal*, 37 CREIGHTON L. REV. 843, 843 (2004); see *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1479 (Fed. Cir. 1998) (en banc) (Newman J., concurring) ("[S]o-called 'Markman hearings' are common . . .").

116. Federal Rule of Civil Procedure 52(a) requires inter alia that "[f]indings of fact, whether based on oral or documentary evidence, shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge of the credibility of the witnesses." FED. R. CIV. P. 52(a).

117. *Cybor*, 138 F.3d at 1455.

118. Burgess, *supra* note 10, at 772–73.

119. *Markman II*, 517 U.S. 370, 378 (1996).

120. See, e.g., *Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, 114 F.3d 1547, 1555–56 (Fed. Cir. 1997) (citing the trial court's superior ability to evaluate expert witness testimony as a reason to uphold its claim construction); *Serrano v. Telular Corp.*, 111 F.3d 1578, 1586 (Fed. Cir. 1997) (Mayer, J., concurring) ("[W]here material facts are disputed, claim construction requires resolution of both questions of fact and questions of law, and this court may be required to give due deference to the trial court's factual findings.");

strictly applied the de novo standard.¹²¹ Thus, nearly fifteen years after *SSIH* and *McGill*, and despite *Markman I* and *II*, the nature of claim construction was still unsettled in the Federal Circuit.

D. *Cybor v. FAS Technologies*

1. Reaffirming De Novo Review

In 1998, the Federal Circuit again tried to resolve the controversy. Sitting en banc in *Cybor Corp. v. FAS Technologies, Inc.*, the Federal Circuit affirmed that “as a purely legal question . . . claim construction [is reviewable] de novo on appeal including any allegedly fact-based questions relating to claim construction” and expressly disavowed all contrary authority.¹²² *Cybor* thus simplified the appellate process by establishing a bright-line rule making all aspects of claim construction reviewable de novo.¹²³

In *Cybor*, the manufacturer of a pump used to apply fluids in small, precise volumes onto semiconductor wafers sued the patentee for declaratory relief.¹²⁴ After the jury found willful infringement, the judge denied plaintiff’s judgment as a matter of law motion, which sought to limit the scope of the claims¹²⁵ based on statements made to the examiner during prosecution.¹²⁶ After *Markman I* was decided, the plaintiff moved unsuccessfully for reconsideration in light of that

Wiener v. NEC Elecs., Inc., 102 F.3d 534, 539 (Fed. Cir. 1996) (citing *Markman II* for the proposition that claim construction “falls somewhere between a pristine legal standard and a simple historical fact”); *Metaullics Sys. Co. v. Cooper*, 100 F.3d 938, 939 (Fed. Cir. 1996) (citing *Markman II* for the proposition that “because claim construction is a mixed question of law and fact, . . . we may be required to defer to a trial court’s factual findings”). For an in-depth discussion of the divergent opinions of the Federal Circuit judges pre-*Cybor* but post-*Markman* on the appellate standard of review, see Donald Dunner & Howard Kwon, *Cybor Corp. v. FAS Technologies: The Final Say on Appellate Review of Claim Construction*, 80 J. PAT. & TRADEMARK OFF. SOC’Y 481, 482–89 (1998).

121. See, e.g., *Serrano*, 111 F.3d at 1582; *Alpex Computer Corp. v. Nintendo Co.*, 102 F.3d 1214, 1218 (Fed. Cir. 1996); *Insituform Techs., Inc. v. Cat Contracting, Inc.*, 99 F.3d 1098, 1105 (Fed. Cir. 1996); *Gen. Am. Transp. Corp. v. Cryo-Trans, Inc.*, 93 F.3d 766, 769 (Fed. Cir. 1996).

122. *Cybor*, 138 F.3d at 1456 (“Accordingly, we today disavow any language in previous opinions of this court that . . . suggests anything to the contrary.”).

123. See *infra* note 153 and accompanying text.

124. *Cybor*, 138 F.3d at 1448.

125. *Id.* at 1453. The patent claims were written in “means-plus-function” format. *Id.* at 1456. For a general discussion of means-plus-function claims, see PRINCIPLES OF PATENT LAW, *supra* note 42, at 947–50.

126. *Cybor*, 138 F.3d at 1453. Patent prosecution is “the process of applying for a patent through the U.S. Patent and Trademark Office and negotiating with the patent examiner.” BLACK’S LAW DICTIONARY 1258 (8th ed. 2004).

decision.¹²⁷ A Federal Circuit panel heard oral arguments on appeal and then sua sponte ordered that the case be heard en banc.¹²⁸

Though deeply divided, the Federal Circuit affirmed the continuing validity of its ruling in *Markman I* that claim construction, as purely a legal issue, is reviewable de novo.¹²⁹ The *Cybor* majority began by reasserting *Markman II*'s holding that "the totality of claim construction is a legal question to be decided by the judge."¹³⁰ In holding claim construction to be a purely legal question, the Federal Circuit stated that the Supreme Court thereby rejected, or never endorsed, a "silent, third option—that claim construction may involve subsidiary or underlying questions of fact."¹³¹

Additionally, the *Cybor* majority emphasized that its mandate to "provide[] national uniformity [in] the construction of patent claim[s] . . . would be impeded if we were bound to give deference to a trial judge's asserted factual determinations incident to claim construction."¹³²

The *Cybor* majority dismissed the Supreme Court's description of claim construction as a "mongrel practice"¹³³ "falling somewhere between a pristine legal standard and a simple historical fact"¹³⁴ as merely "prefatory comments[,] demonstrating the . . . determination of whether patent claim construction is a question of law or fact is not simple or clear cut."¹³⁵ Rather, the *Cybor* majority emphasized the Supreme Court's observation that the seemingly factual underpinnings of claim construction "will be subsumed within the necessarily sophisticated analysis of the whole document."¹³⁶

Finally, the majority noted that the Supreme Court in *Markman II* had the opportunity to change the de novo appellate standard of review announced in *Markman I*.¹³⁷ Its failure to do so "le[ft] *Markman I* as the controlling authority regarding our standard of review."¹³⁸

127. *Cybor*, 138 F.3d at 1453.

128. *Markman I*, 52 F.3d at 970 n.1.

129. *Cybor*, 138 F.3d at 1456.

130. *Id.* at 1455 (emphasis added).

131. *Id.*

132. *Id.* at 1455.

133. *Id.* (citing *Markman II*, 517 U.S. 370, 378 (1996)).

134. *Id.* (citing *Markman II*, 517 U.S. at 388).

135. *Id.*

136. *Id.* at 1456 (citing *Markman II*, 517 U.S. at 389) (commenting on the insignificance of "credibility determinations" when evaluating expert witness testimony).

137. *Id.*

138. *Id.* at 1456.

2. The Rader Dissent: A Voice of Warning

The Federal Circuit was, however, sharply divided. Paramount in criticism was Judge Rader. His oft-cited dissenting opinion accurately foreshadowed many of the difficulties that would result from the application of *de novo* review. Judge Rader argued that the Federal Circuit's insistence that it be "[u]ncumbered by the trial process"¹³⁹ would destroy *Markman I*'s promise of promoting early certainty and greater efficiency in patent litigation through pretrial claim interpretation in *Markman* hearings.¹⁴⁰ Judge Rader observed:

Markman I potentially promised to supply early certainty about the meaning of a patent claim. This certainty, in turn, would prompt early settlement of many, if not most, patent suits. Once the parties know the meaning of the claims, they can predict with some reliability the likelihood of a favorable judgment, factor in the economics of the infringement, and arrive at a settlement to save the costs of litigation. *Markman I* promised to provide this benefit early in the trial court process. To provide fairness under the *Markman I* regime, trial judges would provide claim interpretations before the expense of trial. Patent practitioners would then be armed with knowledge of the probable outcome of the litigation and could facilitate settlement.¹⁴¹

De novo review, according to Judge Rader, would destroy any early certainty promised under *Markman I*.¹⁴² Under *Cybor*, the trial court's pretrial claim construction, which was expected to bring early resolution to most cases,

provides no early certainty at all, but only opens the bidding. . . . To get a certain claim interpretation, parties must go past the district court's *Markman*[] proceeding, past the entirety of discovery, past the entire trial on its merits, past post trial motions, past briefing and argument to the Federal Circuit—indeed past every step in the entire course of federal litigation, except Supreme Court review.¹⁴³

139. *Id.* at 1473 (Rader, J., dissenting).

140. *See id.* at 1473–75.

141. *Id.* 1475–76.

142. *Id.*

143. *Id.* at 1476.

Thus, rather than promote efficiency, Judge Rader argued that de novo review has the “perverse effect[.]”¹⁴⁴ of making the trial court a mere “tryout on the road”¹⁴⁵ to the real “main event”¹⁴⁶—appeal before the Federal Circuit.¹⁴⁷

As evidence, Judge Rader offered the Federal Circuit’s own statistics. During the approximately two years between *Markman I* and *Cybor*, when the majority of the Federal Circuit judges were applying de novo review, the Federal Circuit reversed “53% of the cases from the district courts” in whole or in part and “almost 40% of claim constructions.”¹⁴⁸ Judge Rader further observed: “A reversal rate in this range reverses more than the work of numerous trial courts; it also reverses the benefits of *Markman I*. In fact, this reversal rate, hovering near 50% is the worst possible. Even a rate that was much higher would provide greater certainty.”¹⁴⁹

144. *Id.*

145. *Id.* at 1478 (citing *Wainright v. Sykes*, 433 U.S. 72, 90 (1977)).

146. *Id.*

147. It is possible that in some cases the Federal Circuit’s high reversal rate might actually encourage risk-averse litigants to settle rather than endure unpredictable and expensive patent litigation. However, in most cases, uncertainty actually fosters litigation. Because litigants typically overestimate their chances of prevailing, legal uncertainty discourages settlement. *Id.* at 1475–76. Judge Rader explained:

Three variables affect the settlement calculus of each party to litigation: p , the probability of the plaintiff obtaining damages; J , the expected value of a judgment for the plaintiff; and c , the cost of litigation The plaintiff values the case at $pJ - c$. If the defendant agrees on the values assigned to the variables, the suit will cost him $pJ + c$. This rough model poses an interesting question. Because the costs of litigation invariably exceed the costs of settlement, why do not all cases settle? Chief Judge Posner answers: “[U]ncertainty as to outcome is the key to the settlement rate” This uncertainty leads each party to overestimate its chance of prevailing. Accordingly, each party will assign different values to the variables, most notably p , thereby diminishing the likelihood of settlement.

Id. at 1475 n.3 (citations omitted).

148. *Id.* at 1476. Concerning the Federal Circuit’s astonishingly high reversal rate, Judge Kathleen M. O’Malley of the Northern District of Ohio has made the following comments:

Over the last year, the reversal rate [by the Federal Circuit] has been fifty-eight percent. More conservative numbers from other analyses put the reversal rate at about forty-seven percent. The average reversal rate in other circuits is about seventeen to twenty percent, depending on what circuit you are in. I have jokingly said that perhaps litigants should want to be on the losing side at the district court level because there appears to be a presumption at the Federal Circuit that the district judges generally get claim construction wrong.

A Panel Discussion: Claim Construction from the Perspective of the District Judge, 54 CASE W. RES. L. REV. 671, 680 (2004) [hereinafter *A Panel Discussion*].

149. *Cybor*, 138 F.3d at 1476.

Judge Rader argued

[t]rial attorneys must devote much of their trial strategy to positioning themselves for the ‘endgame’—claim construction on appeal. As the focus shifts from litigating for the correct claim construction to preserving ways to compel reversal on appeal, the uncertainty, cost and duration of patent litigation only increase. Thus, the *en banc* court’s *de novo* regime belies the purpose and promise of *Markman I*.¹⁵⁰

III. SHOULD WE ABANDON DE NOVO REVIEW?

A. *Undermining the Promise of Markman: The De Novo Quagmire*

Despite the vehemence of the dissents in *Markman I* and *Cybor*, the elimination of the jury from the issue of claim interpretation was generally regarded as a positive development by the patent bar.¹⁵¹ Many commentators and judges noted that *Markman* and *Cybor* promised to usher a new era of simplicity and predictability into patent law.¹⁵² “No longer would the district courts have to separate issues of law and fact in claim construction, and by securing *de novo* review the Federal Circuit would be freer to lead by example and could ensure consistency and uniformity in claim construction by taking the issue for itself.”¹⁵³ Unfortunately, Judge Rader’s prediction that the *de novo* review standard would “undermine, if not destroy the . . . certainty and predictability sought by *Markman I*”¹⁵⁴ largely has been realized. Rather than bringing clarity, *Markman* and *Cybor* have added a whole new level of lawyering and cost, both in terms of absolute dollars and delay.¹⁵⁵

150. *Id.*

151. Nard, *supra* note 24, at 359 n.17.

152. For example, Judge Plager heralded the *Cybor* majority opinion for simplifying the appeals process. In Judge Plager’s view, requiring the courts to separate the legal and factual elements of claim construction would be unrealistically difficult and burdensome. *Cybor*, 138 F.3d at 1462–63. By applying a uniform *de novo* review standard the Federal Circuit and the trial courts “can focus on . . . the question that counts: what do the claims mean.” *Id.*

153. Burgess, *supra* note 10, at 763.

154. *Cybor*, 138 F.3d at 1474 (Rader, J., dissenting).

155. Cheryl L. Johnson, *The False Premise and Promises of Markman’s Decision to Task Judges with Claim Construction and the Judicial Scorecard*, in HOW TO PREPARE & CONDUCT MARKMAN HEARINGS 2005, at 9, 17–18 (PLI Intellectual Property, Course Handbook Series No. G-837, 2005) (“*Markman* has created a ‘Catch-22 situation’ in which there is no certainty until after the Federal Circuit ruling on claim construction, even

Several empirical studies demonstrate the accuracy of Judge Rader's predictions. A study conducted by Christian Chu analyzed all 502 patent decisions by the Federal Circuit between January 1, 1998 and April 30, 2000 and concluded that the reversal rate in patent cases on all issues hovered around forty-seven percent, and dropped to thirty-six percent if summary affirmances were included.¹⁵⁶ Moreover, Chu also found a trend showing an increase in claim construction modification and claim interpretation-based reversal since *Cybor*.¹⁵⁷

The most recent comprehensive study available was conducted by Kimberly Moore. Professor Moore analyzed all claim construction appeals to the Federal Circuit from 1996 (post-*Markman*) through 2003. She concluded that the reversal rate for appealed claim constructions is 40.8%, dropping to 34.5% if summary affirmances are included.¹⁵⁸

As patent practitioners have shifted their focus from "litigating the correct claim construction to preserving ways to compel reversal on appeal, the uncertainty, cost, and duration of patent litigation [has] only increase[d]."¹⁵⁹ A recent American Intellectual Property Law Association ("AIPLA") study demonstrated that between the years of 2001 and 2003, litigation costs for patent infringement suits significantly increased.¹⁶⁰ The average cost of trials where more than one million dollars was at risk increased thirty-three percent during that time.¹⁶¹ Of course, all litigation has probably become more expensive. However, the same AIPLA study, using the same methodology, noted that the cost of copyright and trademark

though that ruling usually comes only after the enormous expense of a full jury trial or entry of judgment.").

156. Christian Chu, *Empirical Analysis of Federal Circuit's Claim Construction Trends*, 16 BERKELEY TECH. L.J. 1075, 1097-99 (2001).

157. *Id.* at 1096-05. The author of this Comment speculates that the Federal Circuit's high reversal rate is to some extent a self-perpetuating phenomenon. The high reversal rate creates a disincentive for trial judges to expend their time and other resources to arrive at the proper claim construction when they know that their work will carry little weight with the Federal Circuit on appeal. This disincentive in turn contributes to inaccurate decisions at the trial court level, thus helping to perpetuate the Federal Circuit's high reversal rate.

158. Kimberly A. Moore, *Markman Eight Years Later: Is Claim Construction More Predictable?*, 9 LEWIS & CLARK L. REV. 231, 236, 245-47 (2005).

159. *Cybor*, 138 F.3d at 1476 (Rader, J., dissenting).

160. AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION, REPORT OF THE ECONOMIC SURVEY 2003, at 21-22 (2003).

161. *Id.*

infringement litigation did not increase significantly over the same period.¹⁶²

In addition to increasing the cost and duration of patent litigation, the *Markman-Cybor* regime has the unintended consequence of demoralizing many district court judges and blurring the functional distinction between the trial and appellate courts.¹⁶³

B. Alternatives to De Novo Review

1. Judge Mayer's Two-Tiered Approach

In light of the difficulties encountered under the *Markman-Cybor* regime, many judges and commentators have advocated curtailing de novo review in favor of some degree of deference to the trial courts.¹⁶⁴ These commentators differ, however, in the degree of deference that should be afforded the trial courts. Former Federal Circuit Chief Judge Mayer, for example, has long been a vocal critic of the *Markman-Cybor* regime for transforming the Federal Circuit into a “trial court of first and usually last resort.”¹⁶⁵ Judge Mayer

162. *Id.*

163. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1334 (Fed. Cir. 2005) (en banc) (Mayer, J., dissenting) (“Our [de novo review] has resulted in . . . diminished respect for the court.”). Although there have not been any comprehensive, systematic surveys of district court judges to gauge attitudes about the Federal Circuit, there are abundant anecdotal statements that illustrate this frustration. For example, Judge Patti Sairs of the District of Massachusetts noted:

[T]o some extent, the high reversal rate demoralizes many federal district court judges Trial court judges kill themselves on a [patent] trial, only to feel as though they are just a weigh station along the way to appeal. The lawyers know this and some of them treat us that way. Every single issue is raised; every one is preserved. If there are fifteen claims and fifteen constructions, the odds are favorable that the [Federal Circuit] will reverse on at least one or two.

A Panel Discussion, *supra* note 148, at 682. Similar sentiments were expressed by Judge Kathleen M. O'Malley of the Northern District of Ohio: “In looking at these numbers [the Federal Circuit reversal rates] I wondered, are we really just so bad at this? Are we district court judges just stupid? . . . Perhaps we really do not know what we are doing.” *Id.* Judge Samuel B. Kent of the Southern District of Texas likewise expressed frustration at the close of a protracted patent infringement trial. “Frankly, I don't know why I'm so excited about trying to bring this thing to closure. It goes to the Federal Circuit afterwards. You know, it's hard to deal with things that are ultimately resolved by people wearing propeller hats.” Victoria Slind-Flor, *Judges Receive Mixed Reviews on Handling of Patent Claims*, N.Y. L.J., Mar. 14, 2002, at 1.

164. See, e.g., Burgess, *supra* note 10, at 796; see also Brief for Amicus Curiae American Intellectual Property Law Association, *supra* note 20, at 18–23; Brief of Amicus Curiae Federal Circuit Bar Association, *supra* note 20, at 7–9.

165. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1466 (Fed. Cir. 1998) (en banc). Judge Mayer has characterized *Markman II* as a “perilous decision of last resort” which

would return the court to a *McGill*-like two-tiered standard¹⁶⁶ wherein the Federal Circuit would review legal conclusions in claim interpretation de novo and factual findings in claim interpretation for clear error.¹⁶⁷ By granting deference to the trial courts, this two-tiered approach would help elevate the trial court from its current status of being merely a “tryout on the road”¹⁶⁸ to the Federal Circuit to the actual “main event.”¹⁶⁹

The primary difficulty with granting deference to factual findings is that it may, if applied too strictly, sacrifice accuracy for the sake of efficiency and finality. Is it more important to achieve early certainty or an accurate result? If, as the Federal Circuit’s reversal rate suggests, the trial courts err in approximately forty percent of all claim constructions, granting too much “factual” deference would simply be to turn a blind eye to an enormous problem of inaccuracy at the district court level.¹⁷⁰ If the Federal Circuit were to routinely grant deference to these errors simply because they are factual, the field of patent litigation might be better off simply by conducting a claim construction coin toss at the outset of each trial. Each party would present to the court its version of the claims and the judge would toss a coin to determine which version would be controlling. This practice would be only slightly less accurate and certainly much more efficient than requiring district courts to go through a formal

“bluntly force[d] the square peg of claim construction into the round hole of . . . law” as a pure matter of policy. *Id.* at 1464 n.1.

166. The Federal Circuit applies two-tiered review in other areas of patent law. For example, obviousness is a question of law, which the Federal Circuit reviews de novo, though any underlying factual findings are reviewed for clear error. *In re Duel*, 51 F.3d 1552, 1557 (Fed. Cir. 1995).

167. *See supra* note 166.

168. *Cybor*, 138 F.3d at 1478 (Rader, J., dissenting).

169. *Id.*

170. Commentators have long questioned whether district court judges are equipped to resolve patent cases. Indeed, many recommendations have been made for achieving more accurate decisions at the trial court level. Some of these recommendations have included implementing specialized trial courts, special judges, expert juries, and greater use of technical advisors. *See, e.g.*, Burgess, *supra* note 10, at 791 (noting various proposals of earlier commentators to place greater expertise at the trial court level including specialized trial courts, specialized trial court judges, and greater use of technical advisors); Moore, *supra* note 24, at 39 (noting earlier proposals to place greater expertise at the trial court level including blue ribbon juries, specialized trial courts, specialized trial court judges, and greater use of special masters). Although these recommendations may have merit, thus far none has taken hold. An examination of the virtues of these proposals is beyond the scope of this Comment. Instead, this Comment focuses on less radical measures that can ameliorate the problems encountered under the *Markman-Cybor* regime without fundamentally altering trial court procedure.

Markman hearing.¹⁷¹ Although comparing district court claim construction to a coin toss is certainly hyperbolic, it does illustrate an obvious deficiency in a policy requiring deference to district court error simply because it seems factual in nature.¹⁷²

In practice, granting deference to factual findings would not require the Federal Circuit to give a blank check to the district courts. Under a two-tiered review standard, the Federal Circuit could still review the legal aspects of claim construction *de novo*. By re-categorizing a disputed district court pronouncement as legal rather than factual, the Federal Circuit would be free to correct most district

171. This assumes that the claim constructions of the Federal Circuit are correct. Although an adequate treatment of the accuracy of the Federal Circuit's decisions is beyond the scope of this Comment, other commentators have pointed to the remarkably low rate of dissenting opinions in the Federal Circuit as evidence that the Federal Circuit does in fact "get it right" in most cases. Professor Kimberly Moore, in her empirical review of the Federal Circuit, noted that in the 496 claim terms appealed to the Federal Circuit between April 23, 1996 and December 31, 2000, there were only fifteen total dissents (six of which were written by Judge Rader). Moore, *supra* note 24, at 25. Hence, the Federal Circuit judges disagreed about a claim construction in only three percent of cases. "[S]uch decisions generally create a sense of security that the claim construction is not a coin flip." *Id.* at 24.

172. Of course, in areas besides patent law, the federal appeals courts are similarly bound to defer to the trial court's factual findings. Findings of fact can only be overturned if they are "clearly erroneous" or constitute an abuse of discretion. See FED. R. CIV. P. 52(a) ("Findings of fact . . . shall not be set aside unless clearly erroneous . . ."). This deference is premised on the belief that the trial court is better equipped to make factual determinations where the credibility of the evidence must be evaluated. See, e.g., *id.* ("[D]ue regard shall be given to the opportunity of the trial court to judge of the credibility of the witnesses."). Why then is requiring deference to contentious factual elements of claim construction more of an obvious deficiency than requiring similar deference in other fields of law? There are at least three possible reasons. First, the technologically complex nature of most patent claims changes the nature of the traditional credibility determination. Because credibility determinations in claim construction tend to be based more in objective, scientific fact, rather than the trustworthiness of individual witnesses, the traditional evaluation of witness credibility assumes a lesser role in patent interpretation. See, e.g., *Markman II*, 517 U.S. 370, 389 (1996) ("[A]ny credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole [patent]."). Furthermore, because the factual findings in patent cases are based more on objective, scientific facts and less on traditional witness trustworthiness, the appellate court is often equally equipped, if not more so, to make factual determinations. This is particularly true in the Federal Circuit, where the appellate judges specialize in patent law. See, e.g., Dreyfuss, *supra* note 42, at 48 ("Where . . . the trial court is composed of generalists and the appellate court is staffed to deal with the complex factual issues being tried, [Rule 52(a)'s] assumption breaks down, for the appellate court is at least as well situated to find the facts as the trial court."). Finally, given the degree of legal specialization required in patent cases and the infrequency with which most district court judges hear patent cases, some judges have themselves questioned whether they are adequately equipped to resolve patent cases. See, e.g., *A Panel Discussion*, *supra* note 148, at 680-83 (noting the frustration of Judges O'Malley, Saris, and Whyte with the current state of district court patent trials).

court errors.¹⁷³ While a flexible application of two-tiered review would certainly ameliorate the problems described above, it raises another substantial difficulty—the need to make fine distinctions between the legal and factual aspects of claim construction. Because claim construction is a “mongrel practice,”¹⁷⁴ parsing the trial court’s work into discrete legal and factual categories is not an easy task.¹⁷⁵ Indeed, as Judge Plager noted in his *Cybor* concurrence, the primary virtue of bright-line de novo review is that it frees the trial courts from having to make these difficult differentiations between questions of law and questions of fact.¹⁷⁶ The bright-line de novo standard frees the courts to “focus on . . . the question that counts: what do the claims mean?”¹⁷⁷

Furthermore, the flexibility of the two-tiered standard has the potential to interject even more uncertainty into patent litigation. Because claim construction “falls somewhere between a pristine legal standard and a simple historical fact,”¹⁷⁸ the individual judge’s predilection to characterize these mongrel questions as either legal or factual, would greatly influence the character of the appellate review.¹⁷⁹ A judge who views claim construction as a primarily factual inquiry would be philosophically bound to grant deference even when the trial court’s claim constructions seem inaccurate.¹⁸⁰ A less deferential judge could easily review the same trial court holding de

173. Under a two-tiered review system, it is unclear which court would characterize the claim interpretation as legal or factual. This discussion assumes that the Federal Circuit would determine which of the district court’s pronouncements are factual and which are legal. It is conceivable, although unlikely, considering the historically active role the Federal Circuit has taken in claim construction, that the trial court judges would be allowed to characterize their own pronouncements as either legal or factual. The Federal Circuit would then be required to apply a “clearly erroneous” standard of review to all pronouncements that the district court categorizes as factual.

174. *Markman II*, 517 U.S. at 378.

175. See *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1455 (Fed. Cir. 1998) (en banc) (“[T]he determination of whether patent claim construction is a question of law or fact is not simple or clear cut.”).

176. See *id.* at 1462 (Plager, J., concurring) (“[This] simply means that we do not spend our . . . time debating whether the trial court’s information base constitutes findings of ‘fact’ or conclusions of ‘law,’ with verbally different standards of review.”).

177. *Id.* at 1462–63.

178. *Markman II*, 517 U.S. at 388 (internal citations omitted).

179. See, e.g., Mary L. Jennings, *Should Advocates Be Informed of the Identities of Members of Judicial Panels Prior to Hearings?*, 6 FED. CIR. B.J. 41 (1996) (noting the Federal Circuit’s refusal to divulge which judges will hear any given case until the morning of oral argument to avoid possible judge-shopping).

180. Once the “mongrel” question is characterized as factual it could only be reviewed under a clearly erroneous standard. See FED. R. CIV. P. 52(a); see, e.g., *Cybor*, 138 F.3d at 1456 (discussing the application of the clearly erroneous standard of review to allegedly factual elements of claim construction).

novo simply by characterizing any mongrel questions as legal, thereby perpetuating the problems of *Markman* and *Cybor*. The two-tiered regime, therefore, might foster, rather than reduce, uncertainty in patent litigation.

2. Judge Rader's "Functional Approach"

Another alternative solution was advocated by Judge Rader in his *Cybor* dissent.¹⁸¹ Under Judge Rader's "functional approach,"¹⁸² the Federal Circuit would abandon its bright-line de novo standard and instead defer to the trial court "when it appears that the district court is 'better positioned' than the appellate court to decide the issue in question or that probing appellate scrutiny will not contribute to the clarity of legal doctrine."¹⁸³ In Judge Rader's view, the trial court is generally in a superior position to engage in claim construction. Whereas the Federal Circuit is bound to a fixed record, the trial court can engage in a much more rigorous and flexible analysis of the technology.¹⁸⁴

Judge Rader's functional approach, however, has several shortcomings. For example, Judge Rader's assertion that the district courts are in a superior position to engage in claim construction has been vehemently challenged.¹⁸⁵ Professor Rochelle Cooper Dreyfuss noted that the Federal Circuit's superior expertise and experience in patent law strained the assumption underlying Rule 52(a) of the Federal Rules of Civil Procedure—that district courts are in a better position to decide factual issues.¹⁸⁶ The Federal Circuit is unique amongst all federal appellate courts in that it is the sole federal appellate court whose jurisdiction is based on subject matter rather than geography.¹⁸⁷ Because the Federal Circuit has exclusive

181. *Cybor*, 138 F.3d at 1473 (Rader, J., dissenting).

182. *Id.* at 1477. Judge Rader took the phrase "functional approach" from the language of the Supreme Court's decision in *Markman II*. See *Markman II*, 517 U.S. at 388 ("Where history and precedent provide no clear answers, functional considerations also play their part . . .").

183. *Cybor*, 138 F.3d at 1477 (Rader, J., dissenting) (citing *Salve Regina College v. Russell*, 499 U.S. 225, 223 (1991)); see also *First Options of Chicago, Inc. v. Kaplan*, 514 U.S. 938, 948 (1995) ("[T]he reviewing attitude that a court of appeals takes toward a district court decision should depend upon the 'respective institutional advantages of trial and appellate courts . . .'" (quoting *Salve Regina*, 499 U.S. 225, 233 (1991))).

184. *Cybor*, 138 F.3d at 1477 (Rader, J., dissenting) ("Trial judges can spend hundreds of hours reading and rereading all kinds of source material, receiving tutorials on technology from leading scientists . . . examining on site the operation of the . . . claimed invention. . . . An appellate court has none of these advantages.").

185. Burgess, *supra* note 10, at 766.

186. Dreyfuss, *supra* note 42, at 42.

187. Burgess, *supra* note 10, at 766.

jurisdiction over all patent appeals, it has over the years accumulated a depth of experience with patent matters that is simply not available at the district level.¹⁸⁸ Whereas the average district court judge hears only an occasional patent case, the Federal Circuit handles approximately one hundred patent appeals every year.¹⁸⁹ Also, if the trial court judges are, as Judge Rader asserts, really better positioned to perform claim construction, why does the Federal Circuit feel compelled to reverse the district courts in fifty-three percent of its cases?¹⁹⁰ The magnitude of the reversal rate throws into serious doubt the contention that the district court is necessarily a better forum for claim construction than the Federal Circuit.

Additionally, Judge Rader's functional consideration approach seems to provide little concrete guidance as to what issues are reviewable. To apply Judge Rader's functional approach is simply to ask whether the trial court or the Federal Circuit is better positioned to resolve a particular question. The test provides little if any practical guidance for determining exactly which court is better positioned. As a practical matter, Judge Rader's test does little more than warn the Federal Circuit not to review those issues it is not inclined to review. Judge Mayer perhaps had these types of nebulous legal standards in mind when he asserted that the practice of the Federal Circuit over the past ten years has simply been to "decide cases according to whatever mode or method results in the outcome we desire, or at least allows us a seemingly plausible way out of the case."¹⁹¹

3. De Novo Lite: The Bryson-Plager Approach

A third approach to reining in de novo review was articulated by Judges Bryson and Plager in their separate *Cybor* concurrences. Under the Bryson-Plager approach, the court would apply what might be termed a "de novo lite" standard of review. The Federal Circuit,

188. One common misconception about the Federal Circuit is that its judges must have technical backgrounds to be appointed to the court. At present only four of the twelve active Federal Circuit judges have technical backgrounds. Moore, *supra* note 24, at 18. The Federal Circuit judges do, however, generally hire law clerks with various technical backgrounds. *Id.*

189. See *id.* at 8-9. Between April 23, 1996, and December 31, 2000, 323 claim construction cases were appealed to the Federal Circuit involving 496 separate claim construction issues. *Id.*

190. See *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1476 (Fed. Cir. 1998) (en banc) (Rader, J., dissenting).

191. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 (Fed. Cir. 2005) (en banc) (Mayer, J. dissenting).

while exercising plenary review, would not “disregard the work done by the district courts in claim construction”¹⁹² Rather, “the trial judge’s view [would] carry weight . . . depending on the care . . . with which that view was developed, and the information on which it [was] based.”¹⁹³ Like Judge Rader’s functional review, *de novo lite* recognizes that in many instances the trial court’s “superior access to . . . the pertinent tools of construction”¹⁹⁴ (e.g., expert witness testimony) necessitates, a “common sense”¹⁹⁵ degree of deference to the trial court’s legal conclusions. Unfortunately, this standard again provides little practical guidance. In its most basic sense, it is simply a reminder to the appellate judge not to tamper with trial court pronouncements she believes to be correct. *De novo lite* simply tips its hat to the trial courts while continuing to perpetuate the same problems created under the current *Markman-Cybor* standard.¹⁹⁶

C. Phillips v. AWH: A Missed Opportunity

The general dissatisfaction with the consequences of *de novo* review led to intense speculation that the Federal Circuit might one day rein in the unfettered *de novo* standard and restore some degree of deference to the trial courts.¹⁹⁷ That day came in the highly anticipated *Phillips v. AWH Corp.*¹⁹⁸ Although the central issue in *Phillips* concerned what weight judges should give extrinsic evidence (e.g., dictionaries, technical treatises) when conducting claim construction, the Federal Circuit also asked parties to brief on the following question: “Consistent with the Supreme Court’s decision in

192. *Cybor*, 138 F.3d at 1463 (Bryson, J., concurring) (arguing that in many instances the trial court’s “superior access to . . . the pertinent tools of construction,” such as expert witness testimony, should “factor into our legal analysis”).

193. *Id.* at 1462–63 (Plager, J., concurring) (“Whether this approach to patent litigation will in the long run prove beneficial remains to be seen. There is every reason to believe that it will, and certainly to believe it is better than what we had. But it may be some time before we have enough experience with ‘Markman hearings’ and appellate review under the new regime to draw any empirically sound conclusions.”).

194. *Id.* at 1463 (Bryson, J., concurring).

195. *Id.* at 1462 (Plager, J., concurring).

196. Some trial court judges believe that *de novo lite* is currently the standard actually applied by the Federal Circuit. See, e.g., *A Panel Discussion*, *supra* note 148, at 680 (comments of Judge Whyte) (“I think, and I have certainly heard a number of federal circuit judges agree, that the [Federal Circuit] gives some deference to a well-reasoned opinion, as a practical matter. I think that just makes common sense. The bottom line is . . . [d]o whatever you want, but just get it right.”).

197. See, e.g., Burgess, *supra* note 10, at 792–95 (arguing that the Federal Circuit should overrule or rein in *Cybor*); see also *supra* note 20 (listing several amici curiae who argued in favor of curtailing *de novo* review).

198. 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

[*Markman II*], and our en banc decision in [*Cybor*], is it appropriate for this court to accord any deference to any aspect of trial court claim construction rulings? If so, on what aspects, in what circumstances, and to what extent?"¹⁹⁹

The possibility of reining in the *Markman-Cybor* standard "whipp[ed] the bar into a frenzy of expectation."²⁰⁰ Interested parties filed over thirty amicus briefs of the issue of de novo review.²⁰¹ The Federal Circuit, however, ultimately declined, without comment, to address the issue of de novo review.²⁰² Instead, the Federal Circuit resolved the issue by focusing on the question of what weight to give dictionaries and other extrinsic evidence in the claim construction process.²⁰³

IV. THE NEED FOR INTERLOCUTORY APPEALS

A. *The Search for Pragmatic Solutions Post-Phillips*

In light of the *Phillips* decision, it appears that de novo review of claim construction will be the law of the Federal Circuit for the foreseeable future.²⁰⁴ The focus now becomes one of finding ways of working within the current *Markman-Cybor* regime to restore efficiency and predictability to patent litigation. One noninvasive solution would be for the Federal Circuit to begin reviewing claim construction on an interlocutory basis.²⁰⁵ The interlocutory appeal solution is not a novel idea. Several other commentators have advocated interlocutory appeals in their earlier work.²⁰⁶ However, in

199. *Id.* at 1328.

200. *Id.* at 1330 (Mayer, J., dissenting).

201. See *supra* note 20 (listing amicus briefs). For a summary of the thirty amicus briefs see Dennis Crouch, *Phillips v. AWH: The Amicus Briefs*, http://www.patentlyobviousblog.com/2004/09/phillips_.html (last visited Apr. 3, 2006).

202. *Phillips*, 415 F.3d at 1328.

203. *Id.* at 1327–28.

204. Only two of the nine Federal Circuit judges, Mayer and Newman, seemed willing to revisit the standard of review question. *Id.* at 1330–35 (Mayer, J., joined by Newman, J., dissenting).

205. Judge Mayer, in his *Phillips* dissent, sarcastically advocated a system of expedited review under which

all patent cases could be filed in this court; we would determine whether claim construction is necessary, and, if so, the meaning of the claims. Those few cases in which claim construction is not dispositive can be remanded to the district court for trial. In this way we would at least eliminate the time and expense of the charade currently played out before the district court.

Id. at 1334.

206. See, e.g., Moore, *supra* note 24; Nard, *supra* note 24.

light of the *Phillips* court's unwillingness to restore any degree of deference to trial court claim constructions, interlocutory appeals should be reconsidered as a realistic means of promoting stability in patent law.

Interlocutory review of claim construction is a practical solution because it retains the positive attributes of *de novo* review (unfettered expert review and expedited, pre-trial claim construction)²⁰⁷ while mitigating its detrimental effects (inefficiency and trivialized trial court proceedings).²⁰⁸ *De novo* review, by placing the final resolution of claim construction in the hands of an expert tribunal (the Federal Circuit), has improved the accuracy of claim construction.²⁰⁹ It has also simplified the appellate process by freeing the court from having to make difficult distinctions between law and fact.²¹⁰ This increased accuracy and simplicity has, however, come at a high price. By delaying final resolution of the claims until well after the trial, *de novo* review has had the unintended consequence of increasing litigation costs, delaying settlement, and trivializing the trial court proceedings.²¹¹

Interlocutory patent appeals are a desirable post-*Phillips* solution because they preserve the benefits of *de novo* review while mitigating many of its detrimental effects. Interlocutory claim interpretation appeals would spare the litigants and the courts the burden of an expensive district court audition and retrial without turning a blind eye to the errors of the district court. The mechanism for this expedited review is already in place. Pursuant to 28 U.S.C. § 1292(b), the district courts can certify legal questions (including, presumably, claim construction) for interlocutory appeal if the issue "involves a controlling question of law as to which there is substantial ground for difference of opinion and if an immediate appeal from the order may materially advance the ultimate termination of the litigation" ²¹² Although claim construction seems particularly amenable to the requirements of § 1292(b), the Federal Circuit has thus far exercised its discretion and refused all such interlocutory claim construction appeals.²¹³

207. See *supra* note 24 and accompanying text.

208. See *supra* Part III.A.

209. See *supra* text accompanying note 153.

210. See *supra* text accompanying note 176.

211. See *supra* Part III.A.

212. 28 U.S.C. § 1292(b) (2000).

213. See *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1479 (Fed. Cir. 1998) (en banc) (Newman, J., additional views) (noting that the Federal Circuit has refused all interlocutory claim construction appeals).

B. Arguments Against Interlocutory Appeals Evaluated

1. Can Claim Construction Be Reviewed Without a Trial Record?

Given the importance of early certainty and uniformity in patent law, the Federal Circuit's reluctance to grant interlocutory appeals is curious.²¹⁴ Perhaps this reluctance simply reflects the fact that interlocutory appeals pursuant to § 1292(b) are rarely granted.²¹⁵ However, given the advantages of interlocutory appeal, and the Federal Circuit's wholesale refusal to entertain them, a more satisfying explanation is required. One possible explanation is that the Federal Circuit judges do not want to review the claim construction without the benefit of the entire trial record.²¹⁶ Interlocutory review of claim construction would arguably be more difficult than post-trial review because the court would have access only to the limited record of the *Markman* hearing. Judge Newman noted in *Cybor*:

Although the district courts have extended themselves, and so called "*Markman* hearings" are common, this has not been accompanied by interlocutory review of the trial judge's claim interpretation. The Federal Circuit has thus far declined all such certified questions. Indeed, the certified question issue was an early warning of the difficulties that could flow from premature claim interpretation, for it was often apparent from the petition that the claims could not be finally and correctly interpreted without evidence beyond the patent documents. The absence of extrinsic evidence, of resolution of conflicting positions, and of detailed analysis and findings by the trial judge inhibited claim interpretation by certified question. Thus, instead of conducting the expedited dispositive de novo review, we simply declined the question.²¹⁷

214. Nard, *supra* note 24, at 372.

215. *Id.* ("This reluctance may simply reflect the more general fact that interlocutory appeals pursuant to § 1292(b) are rarely granted."); see also Howard B. Eisenberg & Alan B. Morrison, *Discretionary Appellate Review of Non-Final Orders: It's Time to Change the Rules*, 1 J. APP. PRAC. & PROCESS 285, 292 (1999) ("[C]ourts of appeals decline to hear approximately two-thirds of the cases certified by district courts for interlocutory appeal.").

216. See, e.g., *A Panel Discussion*, *supra* note 148, at 686 (comments of Judge Whyte) (observing that the Federal Circuit refuses to take interlocutory appeals because they want to "wait and see the whole picture").

217. *Cybor*, 138 F.3d at 1479 (Newman, J., additional views).

However, the logical inconsistency of this concern is clear. If claim construction is, as the Federal Circuit asserts, a purely legal question with no underlying factual inquiries, then the factual development of the trial record should not be necessary to review the claims. The Federal Circuit should in theory be able to evaluate a “fully integrated”²¹⁸ patent without even so much as the *Markman* hearing record, much less a completely developed trial court record. Inconsistencies aside, in those cases where the Federal Circuit feels that the *Markman* record is insufficiently developed to allow for appellate review, the Federal Circuit could simply remand the issue to the trial court for additional “lawfinding.”²¹⁹

2. Does the Federal Circuit Have the Resources to Accommodate Interlocutory Appeals?

A more plausible explanation for the Federal Circuit’s reluctance to take interlocutory appeals might be that such appeals would dramatically increase the court’s workload.²²⁰ Indeed, the potential increase in the Federal Circuit’s workload is routinely cited by commentators as the primary difficulty with interlocutory appeals.²²¹ “The Federal Circuit judges may fear that if claim construction were appealable on an interlocutory basis, many parties who settle rather than endure expensive and time-consuming litigation would appeal claim construction prior to settlement because a Federal Circuit appeal is relatively inexpensive compared to a district court trial.”²²² Professor Kimberly Moore, in her empirical study of the Federal Circuit, hypothesized that the number of patent cases appealed would increase by about forty-two percent if interlocutory appeals were

218. *Markman I*, 52 F.3d 967, 978 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

219. “Lawfinding” remands are not unprecedented. In at least two instances the Federal Circuit has remanded a case for additional development of the trial record. See Burgess, *supra* note 10, at 784–86 (discussing *Apex Inc. v. Raritan Computer, Inc.*, 287 F.3d 1062 (Fed. Cir. 2000) and *NeoMagic Corp. v. Trident Microsystems, Inc.*, 325 F.3d 1364 (Fed. Cir. 2003)).

220. See Moore, *supra* note 24, at 34.

221. See *id.* at 37 (“Permitting interlocutory appeal of all claim construction issues would overburden the Federal Circuit.”); see also Nard, *supra* note 24, at 376 (“I am not suggesting that the Federal Circuit’s caseload will not increase [with interlocutory appeals.]”); John B. Pegram, *Markman and Its Implications*, 78 J. PAT. & TRADEMARK OFF. SOC’Y, 560, 568 (1996) (noting that interlocutory appeals will create a disincentive to settle, thereby increasing the Federal Circuit’s workload); Michael E. Solimine, *Revitalizing Interlocutory Appeals in the Federal Courts*, 58 GEO. WASH. L. REV. 1165, 1193 (1990) (“Much of the blame is attributable to . . . the fear that relaxing the use of the statute will open the floodgates to appeals.”).

222. Moore, *supra* note 24, at 34–35.

accepted.²²³ Reviewing all of these appeals, either as of right or on a discretionary basis, would be a substantial burden on the Federal Circuit.²²⁴

While interlocutory review would require a greater allocation of resources to the Federal Circuit, this investment would be largely offset by savings at the district court level. Additionally, under the current *Markman-Cybor* regime, the losing party on claim interpretation typically appeals after the final judgment anyway,²²⁵ after the district court and party resources have been expended.²²⁶ In the absence of interlocutory appeals, “district courts have had to conduct unnecessary trials and sometimes have had to conduct a second trial after the claim is interpreted on appeal after final judgment.”²²⁷ By investing sufficient resources at the appellate level to allow for interlocutory appeals, the judiciary could avoid wasting “judicial resources [on] litigation proceeding under improper claim construction.”²²⁸ The potential increased efficiency at the district

223. Moore, *supra* note 24, at 36 (determined by analyzing settlement rates at various points in the litigation process).

224. Even if the number of appeals increased by 42.5%, this increase would not necessarily translate into a 42.5% increase in workload. Patent cases currently represent only about twenty percent of the cases in the Federal Circuit’s docket. Moore, *supra* note 24, at 34 (citing John B. Pegram, *Should There Be a U.S. Trial Court with a Specialization in Patent Litigation?*, 82 J. PAT. & TRADEMARK OFF. SOC’Y 765, 771 (2000)). Furthermore, because interlocutory appeals would be “limited to claim construction issues, based upon a limited record, [they] are not likely to be as complex or time-consuming for the court as standard post-trial patent appeals in which the gamut of appealable issues are raised.” *Id.* at 36. Even so, the likely increase in Federal Circuit workload is cause for concern. *See id.*

225. *See* Moore, *supra* note 24, at 10 (citing Kevin M. Clermont & Theodore Eisenberg, *Appeal from Jury or Judge Trial: Defendant’s Advantage*, 3 AM. L. & ECON. REV. 125, 130–34 (2001)) (noting that the low transaction costs of appeals contribute to “Hail Mary” appeals).

226. Nard, *supra* note 24, at 375.

227. Constance S. Huttner et al., *Markman Practice, Procedures and Tactics, in PATENT LITIGATION* 1998, at 558 (PLI Patents, Copyrights, Trademarks & Literary Prop., Course Handbook Series No. 531, 1998). Some practitioners fear that the Federal Circuit’s high reversal rate prompts judges to grant summary judgment when they otherwise would not do so. “The judge will grant summary judgment on the theory that, ‘I do not want to try this case twice, just send it up. Let the Federal Circuit tell me whether I got the claim construction wrong by making the infringement decision on the summary judgment.’” *A Panel Discussion, supra* note 148, at 687 (comments of Judge O’Malley).

228. Gasparo, *supra* note 109, at 766. *But see A Panel Discussion, supra* note 148, at 685–86 (comments of Judge Whyte) (“Interlocutory appeals are generally a mistake; they add another layer to the litigation. Yes, maybe there is a unique case where it would be worth doing, but despite the . . . high percentage of reversals on claim construction I am not sure overall [interlocutory appeals] would be efficient Patent cases tend to be slow enough as they are Interlocutory appeals probably would slow down the process and make it more expensive. It might be that in some cases you could avoid trying the

court level justifies a relatively small investment in the appellate system.²²⁹

C. *How Interlocutory Appeals Could Be Implemented*

Interlocutory appeals of *Markman* hearings could be achieved in at least three ways. The least invasive simply would be for the Federal Circuit of its own accord to begin taking interlocutory appeals pursuant to § 1292(b)²³⁰—an unlikely scenario considering the Federal Circuit's history of denying interlocutory appeals.²³¹ Alternatively, Professor Craig Allen Nard advocates a solution wherein the Supreme Court could, pursuant to the Rules Enabling Act,²³² promulgate a rule making claim construction appealable either as of right or as a matter of discretion.²³³ As a practical matter, promulgating a rule specifically making claim construction the subject of discretionary review would not be substantially different than the current § 1292(b) system.²³⁴ The Federal Circuit could, as it has done under the current system, uniformly refuse all interlocutory appeals. But while a discretionary rule seems like an ineffective response to the problem, a certain psychology exists to judging.²³⁵ The specificity

case twice, but the benefits of not [hearing interlocutory appeals] outweigh the detriments.”).

229. “If the Federal Circuit grants an interlocutory appeal, the losing party, after the district court’s final judgment, will be precluded . . . from appealing the Federal Circuit’s interlocutory decision.” Nard, *supra* note 24, at 375.

230. This system would require the district court judge to first certify the question. Given the general sense of frustration among trial court judges with the reversal rate at the Federal Circuit, this preliminary requirement should not be a significant obstacle. *Cf. A Panel Discussion, supra* note 148, at 678–85 (expressing frustration with the current state of patent affairs). *But see A Panel Discussion, supra* note 148, at 685–86 (comments of Judge White) (arguing against interlocutory appeals); Pegram, *supra* note 221, at 568 (noting that it is very unlikely that a trial judge will admit that “there is substantial ground for difference of opinion” on a claim construction that he or she believes to be correct).

231. *See supra* note 213 and accompanying text (noting that the Federal Circuit has never taken an interlocutory appeal of a claim construction).

232. 28 U.S.C. §§ 2071–2077 (2000).

233. Nard, *supra* note 24, at 377.

234. Professor Nard envisions the following discretionary rule:

The United States Court of Appeals for the Federal Circuit may in its discretion permit an appeal from a *Markman* order of a district court interpreting patent claim language, if application is made within ten days after entry of the order. An appeal does not stay the proceedings in the district court unless the district court or Federal Circuit orders otherwise.

Id. at 378–79. The only concrete difference between this rule and the current § 1292(b) system is that the complaining party could request review without the trial court judge first certifying the question. *See id.*

235. *See id.* at 379.

of a new rule, as opposed to the general language of § 1292(b), would exert positive pressure on the Federal Circuit that does not exist under § 1292(b).²³⁶ Such positive pressure could tip the balance in favor of interlocutory review.

The most aggressive method to facilitate interlocutory appeals of *Markman* hearings would be for the Supreme Court to promulgate a rule making claim construction subject to interlocutory appeal as a matter of right. Although this approach would certainly effectuate the desired interlocutory reviews, it seems unrealistically heavy-handed to completely strip the Federal Circuit of its discretion.²³⁷ The change would require judges, who sit on the various rulemaking committees, to limit or remove the discretion enjoyed by fellow judges.²³⁸ Such compulsion seems unlikely.

The most likely solution is a specific rule making claim construction the subject of discretionary review. Although the effect of a discretionary claim construction rule would be merely psychological, it is a reasonable first step in restoring some degree of efficiency to what is increasingly becoming a chaotic system of patent litigation.

CONCLUSION

Although the current *Markman-Cybor* regime has improved the accuracy of claim construction, this accuracy has come at the cost of efficiency and predictability in patent litigation. Under the current regime, the Federal Circuit reviews all claim constructions de novo, but only after the full expense of a district court trial. Given the Federal Circuit's high reversal rate, parties have little incentive to settle prior to appellate review. The result has been an inefficient system where the trial court is relegated to being little more than an audition on the road to the Federal Circuit. Given the Federal Circuit's decision in *Phillips* not to reconsider the de novo standard, it is necessary to find alternative ways to restore order to patent litigation. One solution would be for the Federal Circuit to begin reviewing claim construction on an interlocutory basis. This would best be accomplished by propagating a procedural rule specifically making claim construction the subject of discretionary interlocutory review. By expediting the most important part of the litigation—the

236. *See id.*

237. Even under a compulsory system, the Federal Circuit would presumably retain its right to grant summary affirmance to the trial court's pronouncements.

238. Nard, *supra* note 24, at 378.

definitive resolution of the claim's meaning—interlocutory appeals could preserve the benefits of de novo review while mitigating the current waste and inefficiency in the system.

KYLE J. FIET