APPELLATE REVIEW OF PATENT CLAIM CONSTRUCTION: SHOULD THE FEDERAL CIRCUIT BE ITS OWN LEXICOGRAPHER IN MATTERS RELATED TO THE SEVENTH AMENDMENT?†

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Cite as: *Eileen M. Herlihy, Appellate Review of Patent Claim Construction: Should the Federal Circuit Be Its Own Lexicographer in Matters Related to the Seventh Amendment?*, 15 MICH. TELECOMM. TECH. L. REV. 469 (2009), available at http://www.mttlr.org/volfifteen/herlihy.pdf

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INTRODUCTION

According to any number of prominent sources, patent law in general, and claim construction in particular, are in a state of crisis.[1] Patent

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1. *See generally* JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK (Princeton Univ. Press

law in general has been criticized for failing to give the public fair notice of patent coverage, and for failing to achieve its intended purpose of promoting innovation.[2] With respect to claim construction, the reversal rates for district court decisions are high,[3] and this is widely viewed as an indication that the rules of claim construction are unclear and confusing, perhaps even contradictory.[4] Moreover, as a result of the high reversal rates based on claim constructions, many patent cases proceed through long, costly trials only to be remanded following appeal for retrial in light of new claim constructions.[5] This predicament makes the actual and perceived cost of enforcing patents exorbitant.

In recent years, the United States Supreme Court has stepped in to consider and decide a record number of patent cases in order to deal with some of these problems. The Court has reversed and revised a number of holdings of the United States Court of Appeals for the Federal Circuit,[6] the specialized court established by Congress in 1982 to hear, among other things, appeals in patent cases.[7] In a number of these cases, the Supreme Court held that the Federal Circuit had established special rules for patent cases that needed to be changed to bring them in line with more general principles of law. For instance, in *eBay Inc. v. MercExchange, L.L.C.*, the Supreme Court reviewed the "general rule" established by the Federal Circuit "that courts will issue permanent injunctions against patent infringement absent exceptional circum-

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2008); William H. Burgess, Comment, *Simplicity at the Cost of Clarity: Appellate Review of Claim Construction and the Failed Promise of* Cybor, 153 U. PA. L. REV. 763 (2004); Kimberly A. Moore, Markman *Eight Years Later: Is Claim Construction More Predictable?*, 9 LEWIS & CLARK L. REV. 231 (2005).

2. *See* U.S. CONST. art. I, § 8, cl. 8; Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc., 548 U.S. 124, 126 (2006) (Breyer, J., joined by Stevens and Souter, JJ., dissenting from dismissal of writ of certiorari); BESSEN & MEURER, *supra* note 1.

3. *See* Moore, *supra* note 1, at 233 (following Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996), the Federal Circuit reversed the district courts' claim construction in 34.5 percent of the cases from 1996 through 2003); *see also* Christian A. Chu, *Empirical Analysis of the Federal Circuit's Claim Construction Trends*, 16 BERKELEY TECH. L.J. 1075, 1104 (2001) ("[T]he Federal Circuit reversed 29.6% of cases involving an express review of claim construction."); Andrew T. Zidel, Comment, *Patent Claim Construction in the Trial Courts: A Study Showing the Need for Clear Guidance from the Federal Circuit*, 33 SETON HALL L. REV. 711, 745–46 (2003) (41.5 percent reversal rate in 2001).

4. *See* Burgess, *supra* note 1; Moore, *supra* note 1, at 231 & n.2.

5. *See, e.g.*, Amgen Inc. v. Hoechst Marion Roussel, Inc., 457 F.3d 1293 (Fed. Cir. 2006), *reh'g denied*, 469 F.3d 1039 (Fed. Cir. 2006), *cert. denied,* 127 S. Ct. 2270 (2007).

6. *See, e.g.*, KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398 (2007); Microsoft Corp. v. AT&T Corp., 550 U.S. 437 (2007); MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118 (2007); eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006); Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006).

7. Federal Court Improvements Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (relevant provisions codified as amended in scattered sections of 28 U.S.C.). *See* Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1 (1989).

stances."[8] The Supreme Court held that by applying a general rule favoring permanent injunctions following a finding of infringement, the Federal Circuit "erred in its categorical grant of such relief."[9] The Supreme Court directed the Federal Circuit to apply the traditional four-factor test "[a]ccording to well-established principles of equity."[10]

Despite its recent increased willingness to review issues arising in patent cases, however, there is an important area into which the Supreme Court has rarely ventured: the application of the Seventh Amendment in patent cases. The Court's landmark decision in *Markman v. Westview Instruments, Inc.*[11] is its only major decision in this area. In the *Markman* case, the Supreme Court considered the applicability of the Seventh Amendment[12] to patent claim construction issues and ultimately held that "the construction of a patent, including terms of art within its claim, is exclusively within the province of the court."[13] While the holding is absolute and clear, the precise legal basis for the holding has generated controversy among the judges of the Federal Circuit, practitioners and legal scholars.[14] Moreover, since its *Markman* decision in 1997, the

8. *eBay Inc.*, 547 U.S. at 391 (citing MercExchange, L.L.C. v. eBay Inc., 401 F.3d 1323, 1339 (Fed. Cir. 2005)).

9. *Id.* at 394.

10. *Id.* at 391, 394.

11. Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996).

12. The Seventh Amendment states in relevant part that "[i]n Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of common law." U.S. CONST. amend. VII.

13. *Markman*, 517 U.S. at 372.

14. Commentators have taken varying positions about whether the Supreme Court's *Markman* decision is based on a rationale that claim construction must be treated as a pure issue of law, and whether the decision acknowledges that claim construction has a factual component. *See, e.g.*, David Krinsky, *The Supreme Court, Stare Decisis, and the Role of Appellate Deference in Patent Claim Construction Appeals*, 66 MD. L. REV. 194, 194–98 (2006). Krinsky takes the view that the Supreme Court's *Markman* decision requires that claim construction be treated as a "pure matter of law," *id.* at 197, and that "the Supreme Court's holding that claim constructions should be granted stare decisis effect implies that they cannot be based on fact-finding about which the Federal Circuit has granted deferrence to a trial court." *Id.* Acknowledging statements in the Supreme Court decision "that claim construction could implicate underlying factual inquiries," Burgess, *supra* note 1, at 775, while also classifying the statements as "essentially dicta," *id.*, and stating that ". . . [t]he Supreme Court opinion may be read as having granted an exception to Rule 52(a) for policy reasons . . . ." *Id.* at 776. The Supreme Court in its *Markman* decision "acknowledged that claim construction is a 'mongrel practice,' neither clearly law nor fact . . . ." Andrew S. Brown, AMGEN v. HMR*: A Case for Deference in Claim Construction*, 20 HARV. J.L. & TECH. 479, 487 (2007) (footnotes omitted). Referring to the "apparent inconsistency" in pointing out that "while the Court ruled that ascertaining the meaning of a patent claim is 'a matter of law' for the judge, not a jury, to decide, the Court also noted that claim construction is a 'mongrel practice' that 'falls somewhere between a pristine legal standard and a simple historical fact'." Donald R. Dunner, Cybor Corp. v. FAS Technologies*: The Final Say on Appellate Review of Claim Construction?*, 80 J. PAT. & TRADEMARK OFF. SOC'Y 481, 483–92 (1998).

Supreme Court has avoided deciding any further Seventh Amendment issues in patent cases. In *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, the Supreme Court upheld the viability of the doctrine of equivalents but expressly declined to rule directly on whether, and to what extent, infringement under the doctrine of equivalents should be decided by a judge or jury under the Seventh Amendment.[15] With the exception of the *Markman* case, decisions in the area of the Seventh Amendment in patent cases have been left to the Federal Circuit.

The Supreme Court should accept certiorari in patent cases in which the application of the Seventh Amendment is at issue. Such Supreme Court review could be crucial since some of the positions taken by the Federal Circuit relating both directly and indirectly to the Seventh Amendment have in large part been responsible for creating areas of "crisis" in patent law. There should be no room for unwarranted special rules in patent cases in areas directly or indirectly related to the Seventh Amendment. Principled decisions in the application of the Seventh Amendment in patent cases would go a long way towards resolving many of the areas that are viewed as in "crisis." This Article will address one of several[16] such areas: the standard of appellate review of patent claim construction. While the standard of appellate review of claim construction is not in and of itself a Seventh Amendment issue, the Federal Circuit has formulated a standard of review based upon its resolution of a fact versus law distinction in the application of the Seventh Amendment. Therefore, the Seventh Amendment lies at the heart of the problem of the standard of review of patent claim construction.

Patent claim construction issues are among the most significant in patent cases and may often be outcome determinative. As Judge Rich famously stated "*the name of the game is the claim*."[17] It is well known

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The conflicting views of the judges of the Federal Circuit regarding the proper reading of the Supreme Court's *Markman* decision are discussed in detail throughout this Article.

15. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 38–39 (1997). The Supreme Court stated:

> Because resolution of whether, or how much of, the application of the doctrine of equivalents can be resolved by the court is not necessary for us to answer the question presented, we decline to take it up. The Federal Circuit held that it was for the jury to decide whether the accused process was equivalent to the claimed process. There was ample support in our prior cases for that holding. . . .
>
> Whether, if the issue were squarely presented to us, we would reach a different conclusion than did the Federal Circuit is not a question we need decide today.

Id.

16. Other areas in which Seventh Amendment decisions of the Federal Circuit have contributed to problems in patent law will be addressed in future articles.

17. Giles S. Rich, *Extent of Protection and Interpretation of Claims—American Perspectives*, 21 INT'L REV. INDUS. PROP. & COPYRIGHT L. 497, 499 (1990), *quoted in* Hilton

that the scope of intellectual property rights associated with any given patent is determined based on the claims of the patent.[18] In seeking patent protection, an inventor may define the terms used in the description of the invention and the claims,[19] thereby acting as his or her own "lexicographer."[20] When it comes to the words used by an inventor in a patent and its claims, it is important that they should convey an understanding of the invention to a hypothetical person having ordinary skill in the relevant art,[21] particularly when read in light of the prosecution history[22] of the patent.[23] In theory, then, the claims of a patent should give notice to those of ordinary skill in the relevant art as to the scope of the patent. In practice, however, the proper meaning of patent claims is frequently hotly contested, particularly when the patent is extremely valuable commercially.[24] Moreover, as previously noted, there is a high rate of reversal on appeal of patent claims construed by trial courts,[25] creating problems for both those attempting to enforce patent rights and those attempting to steer clear of patent infringement problems. The standard of review on appeal currently applied to claim construction issues is frequently cited as the problem causing the high reversal rates.

Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512, 1539 (Fed. Cir. 1995) (Plager, J., with whom Archer, C.J., and Rich & Lourie, JJ., join, dissenting).

18. *See* 35 U.S.C. § 112 (2006).

19. The description of the invention and the originally filed claims are collectively called the "specification". *See id.*

20. *See, e.g.*, Process Control Corp. v. HydReclaim Corp., 190 F.3d 1350, 1357 (Fed. Cir. 1999); Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996).

21. *See, e.g.*, Pfizer, Inc. v. Teva Pharms. USA, Inc., 429 F.3d 1364, 1372–73 (Fed. Cir. 2005) (citing Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc)) ("When interpreting claims, we inquire into how a person of ordinary skill in the art would have understood claim terms at the time of the invention.").

22. The prosecution history of a patent is the written record of the proceedings associated with the application for and allowance of a patent.

23. *See, e.g.*, Ortho-McNeil Pharm., Inc. v. Caraco Pharm. Labs., 476 F.3d 1321, 1326 (Fed. Cir. 2007) (citing *Phillips*, 415 F.3d at 1314) ("A person of ordinary skill in the art is deemed to have read the claim term in the context of the entire patent, including the other claims, the specification and the prosecution history."); Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1224 (Fed. Cir. 1995) (Mayer, J., concurring) ("Claim interpretation demands an objective inquiry into how one of ordinary skill in the relevant art at the time of the invention would comprehend the disputed word or phrase in view of the patent claims, specification, and prosecution history.").

24. *See, e.g.*, Jeffrey A. Lefstin, *Claim Construction, Appeal, and the Predictability of Interpretive Regimes*, 61 U. MIAMI L. REV. 1033, 1033 (2007) ("In patent law, there are few problems more significant, or more hotly debated, than the problem of [claim] interpretation."); Mark A. Lemley, *The Changing Meaning of Patent Claim Terms*, 104 MICH. L. REV. 101, 101, 108 (2005) (Patent claims are "central to virtually every aspect of patent law," and "[o]ne of the most significant aspects of patent litigation is 'claim construction,'" which is "often outcome-determinative in infringement cases.").

25. *See supra* note 3 and accompanying text.

The Federal Circuit stated in an en banc decision in *Cybor Corp. v. FAS Technologies, Inc.* that the construction of patent claims is "a purely legal issue," and is therefore subject to de novo review on appeal.[26] The *Cybor* decision reaffirmed the position of the majority of the Federal Circuit which had been announced in its en banc *Markman* decision,[27] and proclaimed that the de novo standard of review is supported by the Supreme Court's *Markman* decision,[28] a Seventh Amendment opinion. However, *Cybor* included strong opposition to a de novo standard of review from some of the judges of the Federal Circuit.[29] Moreover, in subsequent cases, the consistent citation of *Cybor* in support of the application of a de novo standard of review of claim construction has continued to generate scathing dissents from numerous judges of the Federal Circuit[30] and strong criticism from other members of the bench and bar.[31] Even Congress has taken up the issue, proposing in pending reform legislation to grant trial judges the authority to certify interloca-

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26. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1451 (Fed. Cir. 1998) (en banc).

27. *Id.* (citing Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)).

28. *Id.*

29. *Cybor*, 138 F.3d at 1463–72 (Mayer, C.J., joined by Newman, J., concurring in judgment but disagreeing with opinion); *id.* at 1473–78 (Rader, J., dissenting from the "pronouncements on claim interpretation in the en banc opinion," concurring in the judgement, and joining part IV of the opinion); *id.* at 1478–81 (Newman, J., joined by Mayer, C.J., filing "additional views" critical of the de novo standard of review).

30. *See, e.g*, Phillips v. AWH Corp., 415 F.3d 1303, 1330–35 (Fed. Cir. 2005) (en banc) (Mayer, J., joined by Newman, J., dissenting). Judge Mayer wrote an impassioned dissent against the de novo standard of review, stating in part:

> Now more than ever I am convinced of the futility, indeed the absurdity, of this court's persistence in adhering to the falsehood that claim construction is a matter of law devoid of any factual component. Because any attempt to fashion a coherent standard under this regime is pointless, as illustrated by our many failed attempts to do so, I dissent. . . .
>
> In the name of uniformity, *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448 (Fed. Cir. 1998) (en banc), held that claim construction does not involve subsidiary or underlying questions of fact and that we are, therefore, unbridled by either the expertise or efforts of the district court. What we have wrought, instead, is the substitution of a black box, as it so pejoratively has been said of the jury, with the black hole of this court. Out of this void we emit "legal" pronouncements by way of "interpretive necromancy"; these rulings resemble reality, if at all, only by chance.

Id. at 1330 (footnotes omitted).

31. *See, e.g.*, Br. for the American Bar Association as Amicus Curiae Supporting Neither Party at 17–21, *Phillips*, 415 F.3d 1303, No. 03-1269; Br. for Federal Circuit Bar Association as Amicus Curiae at 7–9, *Phillips*, 415 F.3d 1303, No. 03-1269; Cheryl Lee Johnson, *The False Premise and Promises of* Markman*'s Decision to Task Judges with Claim Construction and the Judicial Scorecard*, 837 PLI/PAT 9, 67 (2005); Kathleen M. O'Malley, Patti Saris & Ronald H. Whyte, *A Panel Discussion: Claim Construction from the Perspective of the District Judge*, 54 CASE W. RES. L. REV. 671, 679 (2004) (Judge Saris voiced the opinion that there should be more deference to the trial judge in claim construction).

tory appeals on claim construction issues in order to try to stem the tide of high reversal rates following full trials.[32] Nevertheless, the Supreme Court has denied certiorari in at least three recent cases in which the de novo standard of review from *Cybor* was under attack.[33] While there was a sharp division of opinion among the judges of the Federal Circuit in *Cybor*, all of the judges relied on the Supreme Court's *Markman* decision, a Seventh Amendment case, to support differing views. It is clear that there is disagreement among the judges of the Federal Circuit regarding the basis of the holding in the Supreme Court's *Markman* decision. In *Cybor*, the majority of the Federal Circuit judges chose to view all the subsidiary questions involved in the construction of patent claims as matters of "law,"[34] indirectly holding that there are no issues of fact involved in claim construction. Is this view supported by the Supreme Court in its *Markman* analysis? Has the Federal Circuit engaged in creating unwarranted special rules for patent cases in the area of the Seventh Amendment? Should the Federal Circuit be free to define all the subsidiary questions involved in the construction of patent claims as matters of "law," thereby indirectly acting as its own lexicographer with respect to the term "fact" in the Seventh Amendment?[35]

Part I of this Article examines whether the *Cybor* rule of de novo appellate review of patent claim construction is consistent with Supreme Court precedent, focusing primarily on Seventh Amendment decisions. Part II discusses whether or not it is appropriate for the Federal Circuit to set the boundary between issues of fact and issues of law in patent cases. Finally, Part III addresses the extent to which various proposed standards of appellate review of claim construction are principled, with particular emphasis on the Seventh Amendment.

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32. *See* S. 515, 111th Cong. (as amended on Apr. 2, 2009, by S. Comm. on the Judiciary) (proposing a new 35 U.S.C. § 1292(c)(3)); *see also* HAROLD C. WEGNER, JUDICIAL PATENT REFORM IN THE 111TH CONGRESS: NEW SOLUTIONS FOR KNOWN PROBLEMS 3, 16–24 (2009), http://www.ipfrontline.com/downloads/AkronConferenceWegnerPaper.pdf.

33. Amgen Inc. v. Hoechst Marion Roussel, Inc., 457 F.3d 1293 (Fed. Cir. 2006), *reh'g denied*, 469 F.3d 1039 (Fed. Cir. 2006), *cert. denied*, 127 S. Ct. 2270 (2007); Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc), *cert. denied*, 546 U.S. 1170 (2006); Rattler Tools, Inc. v. Bilco Tools, Inc., Nos. 05-CV-0293, 05-CV-3777, 2007 WL 2008504, at *1 (E.D. La. 2007), *reh'g denied*, 278 F. App'x 1013 (Fed. Cir. 2008), *cert. denied*, 129 S. Ct. 903 (2009).

34. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1455 (Fed. Cir. 1998) (en banc).

35. *See* Burgess, *supra* note 1, at 777 ("For this analysis, I simply accept the proposition that, because the Federal Circuit is the central judicial authority on the patent law, it is to some extent the court's prerogative to label issues as fact or law as it sees fit.") (footnote omitted).

I. *CYBOR*'S RULE OF DE NOVO REVIEW CONSIDERED IN LIGHT OF SUPREME COURT PRECEDENT

> *"You might just as well say," added the Dormouse, which seemed to be talking in its sleep, "that 'I breath when I sleep' is the same thing as 'I sleep when I breathe!' "*
>
> —Lewis Carroll, *Alice's Adventures in Wonderland*

A. Cybor *and the Supreme Court's Seventh Amendment Decision in* Markman

In *Cybor Corp. v. FAS Technologies, Inc.*,[36] the Federal Circuit attempted, in an en banc decision, to eliminate any past confusion and to put an end to prior conflicting decisions[37] regarding the proper standard of appellate review of claim construction issues by "reaffirming" a de novo standard of review.

> [W]e therefore reaffirm that, as a purely legal question, we review claim construction de novo on appeal *including any allegedly fact-based questions* relating to claim construction. Accordingly, we today disavow any language in previous opinions of this court that holds, purports to hold, states, or suggests anything to the contrary . . . .[38]

The majority in *Cybor* announced that the de novo standard of review had previously been set forth in its en banc decision in *Markman v. Westview Instruments, Inc.*,[39] and that the Federal Circuit was reaffirming this standard of review on the basis that the subsequent decision of the Supreme Court in *Markman*[40] did not change it.[41] The majority in *Cybor* stated that the Supreme Court, in its *Markman* decision, addressed the issue of "under which category, fact or law, claim construction should fall" and that "[n]othing in the Supreme Court's opinion supports the view that the Court endorsed a silent, third option—that claim construction may involve subsidiary or underlying questions of fact."[42] The majority in *Cybor* professed that the *Markman* decision of the Supreme

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36. *Cybor*, 138 F.3d at 1448.
37. *See* Donald R. Dunner & Howard A. 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).
38. *Cybor*, 138 F.3d at 1456 (emphasis added).
39. Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1995) (en banc).
40. Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996).
41. *Cybor*, 138 F.3d at 1456.
42. *Id.* at 1455 (footnote omitted).

Court "conclusively and repeatedly states that claim construction is purely legal."[43]

Not all of the Federal Circuit judges agreed with the majority view that a de novo standard of review was appropriate or that it was consistent with the Supreme Court's *Markman* decision. While concurring with the judgement in the case, Chief Judge Mayer, joined by Judge Newman, stated that "I respectfully disagree with the opinion because it profoundly misapprehends" the Supreme Court's *Markman* decision.[44] Judge Rader dissented "from the pronouncements on claim interpretation," stating that the Supreme Court's *Markman* decision "repeatedly intimated that claim construction was *not* a purely legal matter."[45]

In fact, far from resolving conflicts among the judges of the Federal Circuit, the en banc *Cybor* decision of the Federal Circuit highlighted the strong disagreement among some of the judges and resulted in an opinion with six separate sections[46]: a majority decision; two concurring opinions;[47]

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43. *Id.* at 1456.
44. *Id.* at 1463 (Mayer, C.J., concurring in the judgment).
45. *Id.* at 1473 (Rader, J. dissenting in part) (emphasis added).
46. *Id.* at 1451–62.
47. *Id.* at 1462–63 (Plager, J. concurring); *id.* at 1463 (Bryson, J., concurring). While Judge Plager expressly concurred in the decision that claim construction should be reviewed de novo on appeal, he made the following statements which appear to support a flexible review:

> Though we review that record "de novo," meaning without applying a formally deferential standard of review, common sense dictates that the trial judge's view will carry weight. That weight may vary depending on the care, as shown in the record, with which that view was developed, and the information on which it is based.

Id. at 1462 (Plager, J. concurring). Judge Plager further appeared to advocate a practical wait-and-see approach under which a de novo standard of review would be kept, at least for the time being.

> Our purpose is to improve the process of patent infringement litigation for the benefit of patentees and their competitors, and ultimately the public. Whether this approach to patent litigation will in the long run prove beneficial remains to be seen. There is every reason to believe 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 with appellate review under the new regime to draw any empirically sound conclusions. In such circumstances there is much to be said for refraining from premature and argumentative judgments about what it all means, and for allowing sufficient time to actually see how it works.

Id. at 1463. Judge Bryson concurred "without reservation," but also appeared to endorse a somewhat flexible standard of review. *Id.* at 1463 (Bryson, J., concurring). Referring to possible cases in which claim construction evidence might involve competing expert witness testimony and a credibility judgment, Judge Bryson stated that "in those cases it would be entirely appropriate—and consistent with our characterization of claim construction as a question of law—to factor into our legal analysis the district court's superior access to one of the pertinent tools of construction." *Id.*

an opinion concurring in the judgment;[48] an opinion dissenting in part, joining in part and concurring in the judgment;[49] and a section referred to as "additional views."[50] The rift among the judges of the Federal Circuit in *Cybor* was based almost entirely on differing interpretations of the analysis provided by the Supreme Court in *Markman*.[51]

A key question, therefore, is what is the basis of the Supreme Court's holding in *Markman*? In evaluating the decision, it is important to conduct the same in-depth review that is routinely applied to the construction of patent claims. In construing a patent claim, the intrinsic record is of the utmost importance. The words of the claim are considered in the context of the specification and are analyzed in light of the file history. By analogy, the words of the Supreme Court holding in *Markman* should be reviewed with regard to the opinion as a whole, and should be analyzed in the context of the Federal Circuit's en banc *Markman* decision[52] below. Sound bites from the cases are not sufficient to fairly determine the basis of the opinion.

The *Markman* case involved a question of claim construction of a business method patent. The patent in suit claimed an inventory control

48. *Id.* at 1463–72 (Mayer, C.J., concurring in the judgment, joined by Newman, J.). As previously noted, Chief Judge Mayer concurred in the judgment but disagreed emphatically with the rationale of the majority opinion.

49. *Id.* at 1473–78 (Rader, J., dissenting in part, concurring in the judgment). As previously noted, Judge Rader strongly dissented from the majority view that claim construction is purely a matter of law.

50. *Id.* at 1478–81 (additional views of Newman, J., joined by Mayer, C.J.). Judge Newman's "additional views" disagree with the majority position that claim construction is purely a matter of law. Judge Newman was highly critical of the majority opinion and stated: "I strongly disagree with the majority's view of the role of extrinsic evidence, at trial and as considered on appeal." *Id.* at 1481. Moreover, Judge Newman disagreed with the majority's reading of the Supreme Court's *Markman* decision, stating that the Supreme Court recognized a "factual component" to claim construction.

> In *Markman* the en banc court took the position that in patent cases, unlike any other area of the law, a disputed question of the meaning, scope, and usage of terms of technologic art is not a question of fact, or even of law based on underlying fact, but is pure law. However, the Supreme Court has relieved us of adherence to this fiction, by its recognition of the factual component of claim interpretation.

Id. at 1480.

51. *Compare supra* notes 42–43 and accompanying text *with supra* notes 44–45 and accompanying text.

52. Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1996) (en banc), *aff'd*, 517 U.S. 370 (1996). In the Federal Circuit's *Cybor* decision, the majority labels its own *Markman* en banc decision as *Markman I*, while referring to the Supreme Court's *Markman* decision as *Markman II*. *Cybor*, 138 F.3d at 1451–54. The author of this article declines to use the commonly applied labels *Markman I* and *Markman II* to describe these opinions because the labels appear to imply a parity between the authority of the Federal Circuit and the United States Supreme Court which is, of course, misleading. In this article, the author will refer to the opinions as the Federal Circuit's *Markman* decision and the Supreme Court's *Markman* decision.

system for dry-cleaning businesses.[53] The patent owner accused the defendants of infringement of specific claims of the patent in suit based on the defendants' use of a system that tracked invoices attached to articles of clothing left by customers for dry cleaning.[54] At issue was the meaning of the term "inventory" within the patent claims.[55]

The case was originally tried to a jury that was instructed as part of its charge to "determine the meaning of the claims."[56] The jury found infringement of some of the asserted patent claims in response to general interrogatories.[57] Thereafter, the trial judge granted a motion for judgment as a matter of law (JMOL) for the defendants, stating that claim construction is a matter of law for the court.[58] The trial judge construed the term "inventory" within the meaning of the claims as "articles of clothing," and directed a verdict of non-infringement for the defendants, finding that the method the defendants employed tracked a listing of invoices and case totals rather than articles of clothing.[59] The patent owner

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53. *Markman*, 52 F.3d at 971–92. Claim 1 of U.S. Reissue Patent No. 33,054, the only independent claim at issue in the case, reads as follows:

> 1. The inventory control and reporting system, comprising: a data input device for manual operation by an attendant, the input device having switch means operable to encode information relating to sequential transactions, each of the transactions having articles associated therewith, said information including transaction identity and *descriptions of each of said articles* associated with the transactions;
>
> a data processor including memory operable to record said information and *means to maintain an inventory total*, said data processor having means to associate sequential transactions with unique sequential indicia and *to generate at least one report of said total* and said transactions, the unique sequential indicia and the descriptions of articles in the sequential transactions being reconcilable against one another;
>
> a dot matrix printer operable under control of the data processor to generate a written record of the indicia associated with sequential transactions, the written record including optically-detectable bar codes having a series of contrasting spaced bands, the bar codes being printed only in coincidence with each said transaction and at least part of the written record bearing a portion *to be attached to said articles*; and,
>
> at least one optical scanner connected to the data processor and operable to detect said bar codes *on all articles* passing a predetermined station,
>
> whereby said system can detect and *localize spurious additions to inventory* as well as spurious deletions therefrom.

Id. at 972 (emphasis in opinion).

54. *Id.* at 972–73.

55. *Id.* at 975.

56. *Id.* at 973 (quoting excerpts from the jury instructions).

57. *Id.*

58. *Id.*

59. *Id.*

appealed, arguing that it was not only proper for the jury to interpret the patent claims, but it was required under Federal Circuit precedent.[60]

On appeal, the Federal Circuit affirmed the trial court's directed verdict of non-infringement, summarizing its rationale as follows at the outset of the majority opinion:

> We affirm the judgment of noninfringement. In doing so, we conclude that *the interpretation and construction of the patent claims*, which define the scope of the patentee's rights under the patent, *is a matter of law exclusively for the court*.[61]

While acknowledging that past Federal Circuit precedent "contained some inconsistent statements as to whether and to what extent claim construction is a legal or factual issue, or a mixed issue,"[62] the majority concluded that the Federal Circuit had initially taken the position that claim construction is a matter of law, and that any later Federal Circuit cases which had taken a contrary view were lacking in "authoritative support."[63] The majority opinion went on to state that "the Supreme Court has repeatedly held that the construction of a patent claim is a matter of law exclusively for the court," string citing, without quotation, Supreme Court cases from 1848 through 1904.[64]

The Federal Circuit's majority opinion in *Markman* states, as the basis for its holding, that "[t]he patent is a fully integrated written instrument," and is "uniquely suited for having its meaning and scope determined entirely by a court as a matter of law,"[65] based on the following principle:

> The reason that the courts construe patent claims as a matter of law and should not give such task to the jury as a factual matter

60. *Id.* at 973–74. The patent owner, Markman, cited Polumbo v. Don-Joy Co., 762 F.2d 969, 974 (Fed. Cir. 1985) for the proposition that when the meaning of a term in a patent claim is disputed, it presents a factual question. *Markman*, 52 F.3d at 973–74. Markman also cited Tol-O-Matic, Inc. v. Proma Produkt-Und Marketing Gesellschaft m.b.H., 945 F.2d 1546, 1550–52 (Fed. Cir. 1991) for the proposition that a jury's claim construction should be given deference. *Markman*, 52 F.3d at 974.

61. *Markman*, 52 F.3d at 970–71 (emphasis added). The majority opinion was written by Chief Judge Archer, and joined by Judges Rich, Nies, Michel, Plager, Lourie, Clevenger and Schall. Judges Mayer and Rader filed opinions concurring in the judgment but not adopting the majority position that claim construction "is a matter of law exclusively for the judge." Judge Mayer decried the treatment of the Seventh Amendment by the majority, *id.* at 989, and Judge Rader strongly chided the majority for reaching the issue of "[w]hether claim construction can involve subsidiary facts," on the basis that the issue was not properly before the court, *id.* at 998. Judge Newman dissented on the basis of the majority's failure to properly apply the Seventh Amendment. *Id.* at 999–1026.

62. *Id.* at 976.

63. *Id.* at 976–77.

64. *Id.* at 977–78.

65. *Id.* at 978.

> is straight forward: It has long been and continues to be a fundamental principle of American law that "the construction of a written evidence is exclusively with the Court."[66]

The Federal Circuit's majority opinion in *Markman* also cites policy considerations. The majority opinion states that it is appropriate for the Court to construe patent claims since the construction is "defining the federal legal rights created by the patent document."[67] Moreover, the majority cites certainty and uniformity as policies that would be served by having the court construe patent claims as a matter of law.[68] The court concludes the discussion as follows:

> We therefore settle inconsistencies in our precedent and hold that in a case tried to a jury, the court has the power and obligation to construe as a matter of law the meaning of language used in the patent claims . . . . Because claim construction is a matter of law, the construction given the claims is reviewed de novo on appeal.[69]

It is highly significant that in the analysis leading up to the conclusion that claim construction is a matter of law for the court, the majority opinion of the Federal Circuit does not discuss, *or even mention*, the Seventh Amendment,[70] despite the fact that the issue on appeal pertained to whether a judge or jury should construe patent claims. Rather, the majority of the Federal Circuit defines its task in *Markman* as follows: "we must distinguish law from fact."[71] The majority opinion only discusses the Seventh Amendment as rebuttal[72] to the dissenting[73] and one of the

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66. *Id.* (quoting Levy v. Gadsby, 7 U.S. (3 Cranch) 180, 186 (1805) (Marshall, C.J.)).

67. *Id.*

68. *Id.* at 978–79. The Federal Circuit stated in its majority opinion that "it is only fair (and statutorily required) that competitors be able to ascertain to a reasonable degree the scope of the patentee's right to exclude," and further that:

> Moreover, competitors should be able to rest assured, if infringement litigation occurs, that a judge, trained in the law, will similarly analyze the text of the patent and its associated public record and apply the established rules of construction, and in that way arrive at the true and consistent scope of the patent owner's rights to be given legal effect.

Id. at 979. The Federal Circuit also stated that "[a]rriving at a true and consistent scope of the claims also works to the benefit of the patentee." *Id.*

69. *Id.* at 979.

70. *See id.* at 970–79; *see also supra* note 12 (for the relevant text of the Seventh Amendment).

71. *Markman*, 52 F.3d at 976.

72. *Id.* at 984 ("Yet the dissenting and one of the concurring opinions assert that our decision violates the Seventh Amendment. A close analysis of the bases underlying their arguments reveals, however, that they are unsupported by logic and precedent.").

73. *Id.* at 999–1026 (Newman, J., dissenting). Judge Newman painstakingly enumerated her reasons for disagreeing with the majority's "new rule" that claim construction is a

concurring opinions[74] in the case. In its rebuttal, the majority acknowledged that under the Seventh Amendment, the right to a jury trial exists if an action "could be tried to a jury in 1791," or if it is a statutory cause of action "analogous to common law actions."[75] However, the majority stated that its holding "do[es] not deprive parties of their right to a jury

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matter of law solely for the court. *Id.* at 1000. Judge Newman pointed out that the "meaning and scope of the technologic terms and words of art used to define patented invention" are frequently in dispute and that the resolution of such disputes involves "the weight, credibility, and probative value of conflicting evidence." *Id.* at 999. While agreeing with the majority that the construction of patent claims is a matter of law, Judge Newman rejected the majority's position that there are no underlying facts in claim construction, stating that "findings do not become rules of law because they relate to a document whose legal effect follows from the found facts." *Id.* at 1000–02. Judge Newman also decried the procedural infirmities which she envisioned would arise as far as trial and appellate roles are concerned in patent infringement suits. *Id.* at 999, 1002–08. She pointed out that the majority rule "does indeed serve to replace the trier of fact with the Federal Circuit," *id.* at 1003, and replaces "a live trial with cold documents," *id.* at 1006, a situation she doubted would improve the "quality of the decision," *id.* at 1003.

Judge Newman reserved her strongest criticism of the majority rule for the Seventh Amendment issues raised:

> Jury trial in patent cases is protected by the Seventh Amendment. Elimination of the jury is not this Court's choice to make.
>
> The constitutional right alone bars the majority's new rule. The majority today denies 200 years of jury trial of patent cases in the United States, preceded by over 150 years of jury trail of patent cases in England, by simply calling a question of fact a question of law. The Seventh Amendment is not so readily circumvented.

Id. at 1000. *See also id.* at 1010–17.

74. *Id.* at 989–98 (Mayer, C.J., concurring). Judge Mayer wrote an opinion which concurred in the judgment but empathetically rejected and vehemently criticized the majority's holding that claim construction is a matter of law solely for the court. Judge Mayer predicted that the majority's holding "portends turbulence and cynicism in patent litigation," *id.* at 989, by "fl[ying] in the face of the constitutional right to a jury promised by the Seventh Amendment of the Constitution," *id.* at 992. Reviewing and discussing Federal Circuit precedent, *id.* at 989–90, Judge Mayer concluded that the majority's pronouncements on claim construction represented a reversal of position:

> So it is remarkable that the court so casually changes its collective mind, especially when the just cited precedent [by Judge Mayer] was compelled by the Seventh Amendment and not the mere preference of a sufficient number of judges. The court's revisionist reading of precedent to loose claim interpretation from its factual foundations will have profoundly negative consequences for the well-established roles of trial judges, juries, and our court in patent cases.

Id. at 990 (footnote omitted). Judge Mayer also carefully discussed Supreme Court precedent, concluding that the opinions of the highest court also supported a jury role in deciding any "real factual dispute" that might be raised by extrinsic evidence in claim construction. *Id.* at 993–96. Judge Mayer blamed the majority's position concerning claim construction on the outcome of a "hellbent" campaign to eliminate juries from patent cases, stating that "[t]he quest to free patent litigation from the 'unpredictability' of jury verdicts, and generalist judges, results from insular dogmatism inspired by unwarrantable elitism; it is unconstitutional." *Id.* at 989–90.

75. *Id.* at 984.

trial in patent infringement cases," but "*merely* holds that part of the infringement inquiry, construing and determining the scope of the claims in a patent, is strictly a legal question for the court."[76]

In other sections of its rebuttal, the majority of the Federal Circuit rejected the argument of the dissent and one of the concurring opinions that claim construction in patents should be analogized to construing contracts, deeds and wills, which are matters of law but may involve underlying issues of fact.[77] The majority stated that patents, unlike contracts, are not executory in nature or discretionary in their issuance, and always involve a transaction with the federal government rather than any other entity.[78] The majority further stated that with respect to patents, "[p]arol or other extrinsic evidence cannot add, subtract, or vary the limitations of the claims," in contrast to some contract cases in which the parol evidence rule does not apply and evidence is offered to show that a contract does not reflect the agreement or intent of the parties.[79] In addition, the majority rejected an analogy to the factual inquiry involved in

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76. *Id.* (footnote omitted) (emphasis added). In the omitted footnote, the majority pointed out that the de novo standard of review for claim construction applied in both jury and bench trials. *Id.* at 984 n.13. The majority also noted that, while the jury should not play a role in claim construction under its analysis, the jury would still be involved in "the application of the properly construed claim to the accused device." *Id.* at 984.

77. *Compare id.* at 984–87 (Archer, C.J., writing for majority and rejecting argument that claim construction should be analogized to the interpretation of contracts, deeds and wills), *with id.* at 997–98 (Mayer, J., concurring in judgment but rejecting majority view that claim construction is a matter of law solely for the judge; drawing instead an analogy between construction of patent claims and interpretation of contracts and deeds which may have underlying questions of fact), *and id.* at 1007 (Newman, J., dissenting and referring with approval to the treatment of disputes concerning the meaning of technical terms as fact issues for a trier of fact in contract cases).

78. *Id.* at 985 n.14. As a result, the majority points out that infringement suits are not actions for breach of contract. *Id.* at 985.

79. *Id.* The author notes that what is meant by "varying" the limitation of a claim through extrinsic evidence is a circular and amorphous concept if the meaning of the claim limitation is in fact determined in the claim construction, which the majority acknowledges may properly involve extrinsic evidence. *See id.* at 981. The internal strain in this position taken by the majority accounts for what appears to be tortured reasoning in the following majority statement:

> Through this process of construing claims by, among other things, using certain extrinsic evidence that the court finds helpful and rejecting other evidence as unhelpful, and resolving disputes *en route* to pronouncing the meaning of claim language as a matter of law based on the patent documents themselves, the court is *not* crediting certain evidence over other evidence or making factual evidentiary findings. Rather, the court is looking to the extrinsic evidence to assist in its construction of the written document, a task it is required to perform. The district court's claim construction, enlightened by such extrinsic evidence as may be helpful, is still based upon the patent and prosecution history. It is therefore still construction, and is a matter of law subject to *de novo* review.

Id. (emphasis in original) (footnote omitted).

contract law when there is an ambiguous term in the contract.[80] The majority stated that, unlike such contract interpretation situations where the inquiry revolves around the subjective intent of the parties, the subjective intent of the patentee "is of little or no probative weight in determining the scope of a claim (except as documented in the prosecution history);"[81] "[r]ather the focus is on the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean."[82] With respect to this later inquiry, the majority essentially denied the possibility of ambiguity in patent claims, relying for support on statutory requirements for disclosure and definite claims in patent applications, as well as the expertise of patent examiners.[83] The majority concluded that, with respect to patents, "[i]t is not ambiguity in the document that creates the need for extrinsic evidence but rather unfamiliarity of the court with the terminology of the art to which the patent is addressed."[84] The majority considered an analogy to statutory interpretation more appropriate than an analogy to contract interpretation.[85]

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80. *Id.* at 985–87.

81. *Id.* at 985.

82. *Id.* at 986.

83. *Id.* The majority refers to the disclosure provisions of 35 U.S.C. § 112 to support its position that the requirements for obtaining a patent result in "the avoidance of the kind of ambiguity that allows introduction of extrinsic evidence in the contract law analogy," specifically stating as follows:

> Moreover, ideally there should be no "ambiguity" in claim language to one of ordinary shall in the art that would require resort to evidence outside the specification and prosecution history. Section 112 of Title 35 requires that specifications "contain a written description of the invention, and of the manner and process of making and using it, in such *full, clear, concise and exact* terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same . . . " and requires that the specification "shall conclude with one or more claims *particularly pointing out and distinctly claiming* the subject matter which the applicant regards as his invention."

Id. (quoting 35 U.S.C. § 112 with emphasis added by Archer, C.J., writing for the majority).

The majority also discusses the expertise of patent examiners who review patent applications for the PTO as "quasi-judicial officials trained in the law," who possess expertise and familiarity with "the level of skill in the art," and "whose duty it is to issue only valid patents." *Id.* (quoting Am. Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1359 (Fed. Cir. 1984)). Based on the patent examiner's expertise, the majority stated that "[i]f the patent claims are sufficiently unambiguous for the PTO, there should exist no factual ambiguity when those same claims are later construed by a court of law in an infringement action." *Id.* at 986.

84. *Id.* at 986. By discussing claims that "ideally" contain no ambiguities, and situations in which there "should exist no factual ambiguity," the majority seems to imply by comparison, while not *expressly* admitting it, that ambiguities in claim language could theoretically exist. *Id.* However, by not expressly admitting the possibility of ambiguity in claim language, the majority does not resolve the potential problem.

85. *Id.* at 987.

Certiorari was granted, and the Supreme Court issued a unanimous opinion, affirming the decision of the Federal Circuit.[86]

In sharp contrast to the general approach taken by the Federal Circuit in its majority *Markman* opinion, the Supreme Court began its decision by raising the Seventh Amendment issue, stating as follows:

> The question here is whether the interpretation of a so-called patent claim, the portion of the patent document that defines the scope of the patentee's rights, is a matter of law reserved entirely for the court, *or subject to a Seventh Amendment guarantee* that a jury will determine the meaning of any disputed term of art about which expert testimony is offered.[87]

Next, in terms that differed markedly from those employed by the Federal Circuit, the Supreme Court stated its ultimate holding as follows: "[w]e hold that the construction of a patent, including terms of art within its claim, is exclusively within the province of the court."[88] After briefly discussing the constitutional origin of patent protection, the long standing requirement that a patent "describe the exact scope of an invention and its manufacture," and the "specification" and "claims" in modern American patents, the Court pointed out that patent claims serve to define the scope of patent rights and must be interpreted in patent infringement lawsuits.[89]

The Supreme Court analysis of the issue it faced began with the traditional "historical test" under its Seventh Amendment precedent:

> [W]e ask, first, whether we are dealing with a cause of action that either was tried at law at the time of the founding [when the Seventh Amendment was adopted] or is at least analogous to one that was . . . . If the action in question belongs in the law category, we then ask whether the particular trial decision must fall to the jury in order to preserve the substance of this common-law right as it existed in 1791.[90]

Under the first part of the test, the Court concluded that "there is no dispute that infringement cases today must be tried to a jury, as their

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86. Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996).

87. *Id.* at 372 (emphasis added).

88. *Id.*

89. *Id.* at 372–74. It is noteworthy that the Supreme Court does not regard the requirement that patents set forth the "exact scope of an invention" as based in modern claiming practice, but instead recognizes the requirement as a long standing one. *Id.* at 373 ("It has long been understood that a patent must describe the exact scope of an invention and its manufacture to 'secure to [the patentee] all to which he is entitled, [and] to apprise the public of what is still open to them.' " (quoting McClain v. Ortmayer, 141 U.S. 419, 424 (1891)).

90. *Id.* at 376 (citation omitted).

predecessors were more than two centuries ago."[91] However, the application of the second part of the historical test was far less easy for the Court.

In assessing "whether a particular issue occurring within a jury trial (here, the construction of a patent claim) is itself necessarily a jury issue," the second part of the historical test, the Court considered historical evidence but found that "the old practice provides no clear answer."[92] The Supreme Court therefore had to determine, according to precedent, whether the jury must construe patent claims, and in particular, disputed terms of art within the patent claims, in order "*to preserve the 'substance of the common-law right of trial by jury*.'"[93] The Court noted that the standard is "a pretty blunt instrument for drawing distinctions," and pointed out that the Court had "tried to sharpen it, to be sure, by reference to the distinction between substance and procedure," and had "also spoken of the line as one between issues of fact and law."[94] However, it is extremely significant that, given the issue at hand, the Court did not choose the approach of trying to draw a line between fact and law. Instead, labeling claim construction a "mongrel practice," the Court chose the historical approach for the second part of the test (in effect, a nested historical approach):

> But the sounder course, when available, is to classify a *mongrel practice* (like construing a term of art following receipt of evidence) by using the historical method, much as we do in characterizing the suits and actions within which they arise. Where there is no exact antecedent, the best hope lies in comparing the modern practice to earlier ones whose allocation to court or jury we do know.[95]

Applying the historical approach to the second question, the Court found "no direct antecedent of modern claim construction in the historical sources," but considered some cases involving the construction of patent specifications as the closest analogy at the time relevant to the Seventh Amendment analysis.[96] For those cases, however, the Court found that

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91. *Id.* at 377.
92. *Id.* (citations omitted).
93. *Id.* (emphasis in original) (quoting Tull v. United States, 481 U.S. 412, 426 (1987)).
94. *Id.* at 378.
95. *Id.* (emphasis added). Since the term "mongrel practice" appears in the opinion followed immediately after the statement "[w]e have also spoken of the line as one between issues of fact and law," it seems clear that the court intended the term "mongrel practice" to refer to a mixed question of fact and law.
96. *Id.* at 378–79.

none established that construction of disputed terms in patent specifications was an issue for the jury.[97]

Finding that the "evidence of common-law practice at the time of the framing does not entail application of the Seventh Amendment's jury guarantee to the construction of the claim document," the Court considered existing precedent, the "relative interpretative skills of judges and juries," and statutory policies.[98] Reviewing both Supreme Court precedent and treatises, the Court concluded that these authorities did not indicate "that juries resolved the meaning of terms of art in construing a patent," but instead supported having the court construe patent claims.[99] The Court also found that "functional considerations" weighed in favor of having a judge, rather than a jury, define terms of art within the patent claims, stating:

> *[W]hen 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."[100]

The Court supported its determination that judges are likely to be better at construing patent claims than jurors, on the basis that judges frequently construe written instruments, have special training and are therefore more likely to reach "a proper interpretation."[101] The Court also dismissed the argument that the jury should be involved in claim construction to evaluate witness credibility, expressing doubt that many patent cases would turn on credibility judgments concerning conflicting expert testimony.[102]

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97. *Id.* at 379–84. The Supreme Court discussed the "primitive state of jury patent practice at the end of the 18th century," and the lack of clear statements of law in patent cases, leading early commentators to lament what the Supreme Court characterized as "patent law's amorphous character." *Id.* at 380–81. The Court refused to imply that juries must have construed claims in reaching documented verdicts, finding it more likely that the judge interpreted the patent documents: "There is no more reason to infer that juries supplied plenary interpretation of written instruments in patent litigation than in other cases implicating the meaning of documentary terms, and we do know that in other kinds of cases during this period judges, not juries, ordinarily construed written documents." *Id*. at 381–82.

98. *Id.* at 384.

99. *Id.* at 384–88.

100. *Id.* at 388–90 (quoting Miller v. Fenton, 474 U.S. 104, 114 (1985) (emphasis added)).

101. *Id.* at 388–89.

102. *Id.* at 389. The Supreme Court stated that "[i]n the main, we expect any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document, required by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole." In its discussion of the issue, however, the

The last consideration the Court addressed was the importance of providing "uniformity" in the treatment of patents, a policy issue which the Court cited as an "independent reason to allocate all issues of construction to the court."[103] The Court stated that "treating interpretive issues as purely legal will promote (though it will not guarantee) intra-jurisdictional certainty through the application of *stare decisis* on those questions not yet subject to inter-jurisdictional uniformity under the authority of the single appeals court."[104]

In considering factors beyond the traditional historical test, the Court expressly stated that it was not applying a fact/law test:

> Because we conclude that our precedent supports classifying the question as one for the court, *we need not decide either the extent to which the Seventh Amendment can be said to have crystallized a law/fact distinction*, or whether post-1791 precedent classifying an issue as one of fact would trigger the protections of the Seventh Amendment if (unlike this case) then were no more specific reason for decision.[105]

In order to gain a deeper understanding of the Supreme Court's decision in *Markman*, it is telling to compare, side by side, the rationales of both the Federal Circuit and the Supreme Court in their *Markman* decisions. While the Supreme Court affirmed the decision of the Federal Circuit, an in-depth review of the opinions of the two courts confirms that, in large part, the two *Markman* opinions are like ships passing in the night. They differ in their general approaches, the scope of their holdings, and their analyses.

First, the two decisions employ wholly different approaches. While the Federal Circuit stated as its task: "we must distinguish law from

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Court did recognize that a case could arise in which a credibility judgment would be the determining factor in resolving conflicting testimony.

> It is of course true that credibility judgments have to be made about the experts who testify in patent cases, and in theory there could be a case in which a simple credibility judgment would suffice to choose between experts whose testimony was equally consistent with a patent's internal logic. But our own experience with document construction leaves us doubtful that trial courts will run into many cases like that.

Id. The Court concluded that "there is sufficient reason to treat construction of terms of art like many other responsibilities that we cede to a judge in the normal course of trial, *notwithstanding its evidentiary underpinnings*." *Id.* at 390 (emphasis added).

103. *Id.* at 390.

104. *Id.* at 391.

105. *Id.* at 384 n.10 (citations omitted) (emphasis added).

fact,"[106] the Supreme Court identified the issue in terms of the Seventh Amendment: "[t]he question here is whether the interpretation of a so-called patent-claim . . . is a matter of law reserved entirely for the court, or subject to a Seventh Amendment guarantee . . . ."[107] The Supreme Court embarked on a detailed Seventh Amendment analysis in its decision, beginning with the traditional "historical approach," and considering whether juries should construe patent claims in order "to preserve the 'substance of the common-law right of trial by jury.' "[108] On the other hand, the Federal Circuit did not even mention the Seventh Amendment in its initial law versus fact approach, and only discussed the Seventh Amendment as rebuttal to the dissenting and one of the concurring opinions of two Federal Circuit judges.[109]

Second, the two decisions reached conclusions that differ in scope. The specific word choices employed in the Federal Circuit and Supreme Court *Markman* decisions, including the statements of the holdings, demonstrate a decided mismatch. The Federal Circuit's *Markman* decision repeatedly states that claim construction is "*a matter of law* exclusively for the court," and that, as a result, it is "reviewed *de novo* on appeal."[110] On the other hand, even though the wording of the Federal Circuit's *Markman* decision included repeated enticements to address the "matter of law" language, the decision of the Supreme Court, having avoided tests based upon the "law/fact distinction,"[111] does not include any statement in its holding defining claim construction as falling into the category of "matters of law." The Supreme Court's conclusion, rather, is that "construction of a patent, including terms of art within its claim, is exclusively within the province of the court."[112] This wording of the holding is consistent with the Supreme Court's labeling of claim construction as a "mongrel practice," better analyzed under a historical approach rather than "one between issues of fact and law."

The Supreme Court also carefully avoided any language relating to the standard of review on appeal. It is noteworthy that the Supreme Court restated the holding of the Federal Circuit to exclude any reference to a "matter of law" categorization. According to the Supreme Court: "The United States Court of Appeals for the Federal Circuit affirmed, holding the interpretation of claim terms to be *the exclusive province of*

106. Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc); *see also supra* text accompanying note 74.
107. *Markman*, 517 U.S. at 372; *see also supra* text accompanying note 90.
108. *See supra* notes 90, 93.
109. *See supra* notes 70, 72–74 and accompanying text.
110. *See supra* notes 61, 69 and accompanying text.
111. *See supra* note 105 and accompanying text.
112. *See supra* note 88 and accompanying text.

the court and the Seventh Amendment to be consistent with that conclusion."[113] In rephrasing the conclusion of the Federal Circuit, the Supreme Court limited the scope of its review and decision to whether a judge or jury should construe claims, and did not address the standard of review on appeal of patent claim construction decisions.

Finally, the *Markman* decisions of the Federal Circuit and the Supreme Court employ entirely divergent in-depth analyses. The Federal Circuit employed a law versus fact approach, outside of any Seventh Amendment context, in reaching its conclusion that claim construction is "a matter of law exclusively for the court," and it overruled past contrary Federal Circuit precedent.[114] The Federal Circuit's *Markman* analysis relied heavily upon the reasoning that "[t]he patent is a fully integrated written instrument," and is "uniquely suited for having its meaning and scope determined entirely by a court as a matter of law."[115] The Federal Circuit addressed the Seventh Amendment in rebuttal, remarking that the Federal Circuit holding does not deprive patent litigants of a right to a jury trial, but "*merely* holds that part of the infringement inquiry, construing and determining the scope of the claims in a patent, is a strictly legal question for the court."[116] In sharp contrast, the Supreme Court undertook an in-depth analysis of the Seventh Amendment as it pertains to patent cases in its *Markman* decision. Applying the traditional "historical approach," the Supreme Court first concluded that patent infringement cases fall within the scope of protection of the Seventh Amendment and "must be tried to a jury, as their predecessors were more than two centuries ago."[117] In determining whether the particular issue of claim construction within a patent infringement lawsuit raises any jury issues protected by the Seventh Amendment, the Supreme Court mentioned and passed over a fact versus law framework for the analysis of the subsidiary question of whether claim construction should involve the jury in order "to preserve the 'substance of the common-law right of trial by jury.' "[118] The Court did so on the grounds that claim construction based on the receipt of evidence is a "mongrel practice." Instead of employing a fact versus law framework, the Supreme Court again applied a historical approach, and when that proved inconclusive in establishing Seventh Amendment protection for claim construction, the Court considered its existing precedent, the relative skills of judges and juries, and policy

113. Markman v. Westview Instruments, Inc., 517 U.S. 370, 376 (1996) (emphasis added).
114. *See supra* notes 70–72 and accompanying text.
115. *See supra* notes 65–66 and accompanying text.
116. *See supra* note 76 and accompanying text.
117. *See supra* note 91 and accompanying text.
118. *See supra* notes 93–95, 105 and accompanying text.

considerations, again passing over and, in fact, expressly rejecting an approach based on a "law/fact distinction."[119]

In the final portion of its decision, the Supreme Court addressed the policy of providing "uniformity" as an "independent reason" for having judges, rather than juries, construe claims. Stating that the limits of a patent must be known so that others will not be discouraged from invention due to uncertainty regarding infringement, and so that the public will ultimately get the benefit of the patent, the Supreme Court placed great weight on uniformity.[120] The Supreme Court cited the desire of Congress to further uniformity in patent law by creating the Federal Circuit.[121] Stating that such uniformity would be "ill served by submitting issues of document construction to juries,"[122] even though issue preclusion would apply in such a situation, the Supreme Court relied upon stare decisis as a way to attempt to foster uniformity in claim construction:

> But whereas issue preclusion could not be asserted against new and independent infringement defendants even within a given jurisdiction, treating interpretive issues as purely legal will promote (though it will not guarantee) intra-jurisdictional certainty through the application of *stare decisis* on those questions not yet subject to interjurisdictional uniformity under the authority of the single appeals court.[123]

The above quoted language, in the penultimate paragraph of the decision, has been relied upon to support the view that the Supreme Court did, in effect, take the position that claim construction is a matter of law and has no underlying factual issues, and that *Cybor* cannot be overruled by the Federal Circuit.[124] This language has certainly created some

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119. *See supra* notes 96–99 and accompanying text.

120. Markman v. Westview Instruments, Inc., 517 U.S. 370, 390 (1996).

121. *Id.*

122. *Id.* at 391.

123. *Id.*

124. *See* Krinsky, *supra* note 14. While arguing that deference should be given to "factual findings and acquired technical expertise" inherent in district court claim construction rulings, Mr. Krinsky states that commentary by judges and scholars that the Federal Circuit should change the standard of review of claim construction rulings is based on "a flawed assumption."

> This commentary relies on a flawed assumption. The Federal Circuit lacks the authority to review claim construction rulings deferentially, because de novo review is required by the Supreme Court's decision in *Markman v. Westview Instruments, Inc.* In particular, the Supreme Court stated that claim construction rulings are entitled to *stare decisis*.

Id. at 194.

internal tension in the decision. The majority of the Federal Circuit in *Cybor* chose to read the Supreme Court's *Markman* decision as affirming the rationale of the Federal Circuit's *Markman* decision, and thus reaffirmed, in *Cybor*, the statements in the Federal Circuit's *Markman* decision that claim construction is a purely legal issue subject to de novo review on appeal. Other judges on the Federal Circuit vehemently disagreed with this reading of the Supreme Court's *Markman* decision.[125]

The dissent of Justice Newman and the concurrence by Judge Mayer in the Federal Circuit's *Markman* decision are correct in their criticism of the majority's position that claim construction is a matter of law with no possible factual component.[126] Further, the concurrence of Judge Mayer, the opinion of Judge Rader dissenting in part, joining in part and concurring in the judgement, and the "additional views" of Judge Newman in *Cybor* are correct in criticizing the *Cybor* majority for interpreting the Supreme Court's *Markman* decision as holding that claim construction is purely a matter of law.[127] It is important to reiterate that the Supreme Court *expressly* rejected the law versus fact approach in applying the Seventh Amendment in its decision. The Supreme Court also labeled claim construction in a straightforward manner as a "mongrel practice."[128] By comparison, the Supreme Court used the term "treating" when it discussed the policy position that stare decisis would advance uniformity in claim construction by "*treating* interpretive issues as purely legal."[129] As those engaged in patent claim construction are acutely aware, word choices matter. To conclude that the penultimate paragraph can be used to negate the earlier statements in the Seventh Amendment analysis would be similar to turning the statements on their heads, as Lewis Carroll did in *Alice's Adventures in Wonderland*: "you might just as well say . . . that 'I breath when I sleep' is the same thing as 'I sleep when I breath!' "[130]

Based upon a fair and careful reading of these decisions, it is not principled to conclude that the Supreme Court's *Markman* decision affirmed the rationale of the Federal Circuit's *Markman* decision that claim construction is in the exclusive province of the court *because it constitutes in its entirety a matter of law, devoid of any underlying questions of fact*. The principled conclusion is that while the Supreme Court affirmed the Federal Circuit's decision that a judge, rather than a jury,

125. *See supra* notes 44–45, 48–50 and accompanying text.
126. *See supra* notes 73–74 and accompanying text.
127. *See supra* notes 44–45, 48–50 and accompanying text.
128. *Markman*, 517 U.S. at 378.
129. *Id.* at 391 (emphasis added).
130. LEWIS CARROLL, ALICE'S ADVENTURES IN WONDERLAND 56 (Borders Classics 2008) (1865).

should construe the claims of a patent, it did so based upon a Seventh Amendment analysis. The Supreme Court expressly declined to employ a fact versus law analysis in applying the Seventh Amendment, and labeled claim construction a "mongrel practice" in the context of a fact and law discussion. The Supreme Court's rationale in *Markman* differed from that of the Federal Circuit. The Federal Circuit's *Cybor* decision, which relies upon the Federal Circuit's *Markman* decision, is rooted entirely in its fact versus law analysis and cannot be reconciled in a principled manner with the Supreme Court's rationale in *Markman*.

However, since the Supreme Court did introduce some internal tension in the penultimate paragraph of its *Markman* decision, which has led to disagreement among judges, practitioners and scholars concerning the Supreme Court's rationale, it is worthwhile to compare the Supreme Court's approach in *Markman* with other Seventh Amendment cases.

B. Markman *and the Supreme Court's General Seventh Amendment Law*

In its *Markman* decision, the Supreme Court analyzed the Seventh Amendment issue under the so-called "historical test," an approach that the Court attributed to the era of Justice Story.[131] As previously discussed, the test seeks to determine whether the action in question "could have been brought in a court of law in 1791, the time of the Seventh Amendment's ratification,"[132] and involves an inquiry into cases brought in the courts of law in England at that time. The inquiry is largely rooted in the historical distinction between actions at law and actions in equity, with the right to a jury trial historically available for actions at law but not for actions in equity.[133] In appropriate cases, the inquiry also involves distinguishing actions at law from actions historically brought in admiralty,[134] an issue not involved in the *Cybor* or *Markman* cases.

Under the historical test, in order to qualify for Seventh Amendment protection, the action at issue need not directly correlate to an action that

131. *Markman*, 517 U.S. at 376 (citing United States v. Wonson, 28 F. Cas. 745, 750 (C.C. Mass. 1812) (No. 16,750)). The Court also cites a leading constitutional scholar, Charles Wolfram, *The Constitutional History of the Seventh Amendment*, 57 MINN. L. REV. 639, 640–43 (1973).

132. Margaret L. Moses, *What the Jury Must Hear: The Supreme Court's Evolving Seventh Amendment Jurisprudence*, 68 GEO. WASH. L. REV. 183, 183, 187–88 (2000). Moses places the time of the development of the historical test for the Seventh Amendment in the twentieth century, relying upon Balt. & Carolina Line, Inc. v. Redman, 295 U.S. 654, 657 (1935).

133. *See generally* James Fleming, Jr., *Right to a Jury Trial in Civil Actions*, 72 YALE L.J. 655 (1963).

134. *See, e.g.*, Parsons v. Bedford, 28 U.S. (3 Pet.) 433, 446 (1830) (The Supreme Court stated as follows with respect to the phrase "common law" in the Seventh Amendment: "[t]he phrase 'common law,' found in this clause, is used in contradistinction to equity, and admiralty, and maritime jurisprudence.").

could have been brought in the courts of law in England in 1791. Rather, the test considers whether the action at issue is analogous to an action that could have been brought in a court of law in England in 1791.[135] As a result, the right to a jury trial under the Seventh Amendment may apply to modern statutory causes of action.[136]

The "historical test" has been continuously applied in Seventh Amendment analyses since at least 1935, when the Supreme Court issued its decision in *Baltimore & Carolina Line, Inc. v. Redman*,[137] but the details, as well as the articulation, of the "historical test" have varied somewhat over the years.[138] In the *Redman* case, the Supreme Court simply stated that under the Seventh Amendment, "[t]he right of trial by jury thus preserved is the right which existed under the English common law when the amendment was adopted."[139] In later cases, many of which involved suits asserting modern statutory causes of action, the Supreme Court stated that the historical test requires consideration of both (1) the nature of the legal action at issue as compared to eighteenth century English actions, and (2) the type of remedy sought.[140] The cases have not always been consistent in their view of which of these two factors is

135. *See, e.g.*, Tull v. United States, 481 U.S. 412, 417 (1987).

136. *See* Curtis v. Loether, 415 U.S. 189 (1974). In *Curtis*, a case under the Civil Rights Act of 1968, the Supreme Court applied the Seventh Amendment and found that there was a right to a jury trial, stating that the Seventh Amendment applies "to actions enforcing statutory rights, and requires a jury trial upon demand, if the statute creates legal rights and remedies, enforceable in an action for damages in the ordinary courts of law." *Id.* at 193–94. *See also* Pernell v. Southall Realty, 416 U.S. 363, 375 (1974).

137. *Balt. & Carolina Line, Inc.*, 295 U.S. at 654.

138. *See generally* Moses, *supra* note 132, at 187–98.

139. *Balt. & Carolina Line, Inc.*, 295 U.S. at 657.

140. *See, e.g.*, *Curtis*, 415 U.S. at 194 ("The Seventh Amendment does apply to actions enforcing statutory rights, and requires a jury trial upon demand, if the statute creates legal rights and remedies, enforceable in an action for damages in the ordinary courts of law."); *Pernell*, 416 U.S. at 375 (The Seventh Amendment "requires trial by jury in actions unheard of at common law, provided that the action involves rights and remedies of the sort traditionally enforced in an action at law, rather than in an action in equity or admiralty."); Granfinanciera, S.A. v. Nordberg, 492 U.S. 33, 42 (1989). Referring to the Seventh Amendment, the Court stated as follows: "The form of our analysis is familiar. 'First, we compare the statutory action to 18th-century actions brought in the courts of England prior to the merger of the courts of law and equity. Second, we examine the remedy sought and determine whether it is legal or equitable in nature.' " *Id.* (quoting *Tull*, 481 U.S. at 417–18).

more important.[141] However, the historical test has survived in general form to the present day.[142]

Some of the Supreme Court cases involving the Seventh Amendment historical test have applied the test separately to different issues within a given case. In *Ross v. Bernhard*,[143] the Court considered whether there were any issues within a stockholders derivative action that merited Seventh Amendment protection, and held that "the right to jury trial attaches to those issues in derivative actions as to which the corporation, if it had been suing in its own right, would have been entitled to a jury."[144] The Court stated in its analysis that "[t]he Seventh Amendment question depends on the nature of the issue to be tried rather than the character of the overall action."[145]

In *Tull v. United States*, a lawsuit initially brought by the government seeking civil penalties and injunctive relief against a real estate developer for violating the Clean Water Act by dumping fill on wetlands, the Supreme Court found that there was a right to trial by jury on the issue of liability but not on the assessment of the civil penalties.[146]

The analysis differed from *Ross v. Bernhard*, however, in that the Court did not separate out liability, on the one hand, and damages in the form of a civil penalty, on the other, as two separate issues that each required separate analyses under the historical test. In fact, the Court chastised the government for this type of argument:

> The Government contends that both the cause of action and the remedy must be legal in nature before the Seventh Amendment right to a jury trial attaches. It divides the Clean Water Act action for civil penalties into a cause of action and a remedy, and

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141. *Compare Granfinanciera, S.A.*, 492 U.S. at 42 (stating that the consideration of the remedy sought is more important than comparing the statutory action to 18th-century actions in England), *with* Chauffeurs, Teamsters & Helpers, Local No. 391 v. Terry, 494 U.S. 558 (1990) (split among the justices concerning the relative importance of historical analogues based on the nature of the action and the remedy sought).

142. *See* Feltner v. Columbia Pictures, Inc., 523 U.S. 340, 348 (1998) (The Court considered "both the nature of the statutory action and the remedy sought" in applying the historical test.).

143. Ross v. Bernhard, 396 U.S. 531 (1970).

144. *Id.* at 532–33.

145. *Id.* at 538 (footnote omitted). In the footnote to the statement quoted, the Court stated that "the 'legal' nature of an issue" is determined by taking into account (1) whether the issue was considered legal before the merger of law and equity, (2) the remedy sought and (3) "the practical abilities and limitations of juries." *Id.* at 538 n.10 (citing Fleming, *supra* note 133). Margaret Moses considers the footnote to be dicta and states that the Supreme Court "never developed in any other case, however, a functional approach to Seventh Amendment interpretation which considered 'the practical abilities and limitations of juries,' except with respect to administrative proceedings." Moses, *supra* note 132, at 240.

146. Tull v. United States, 481 U.S. 412 (1987).

> analyzes each component as if the other were irrelevant . . . . We reject this novel approach. Our search is for a single historical analog, taking into consideration the nature of the cause of action and the remedy as two important factors.[147]

The government and Tull advanced different historical analogues, a public nuisance action and an action in debt, respectfully. Based upon their proposed analogies, the government argued that the nature of the cause of action under the Clear Water Act was equitable, while Tull argued that it was legal.[148] The Court found both analogies appropriate, but rather than decide which was better, the Court stated that the relief sought was the more important factor in the historical test.[149] Based upon this assessment, the Court found that the nature of the relief sought in the form of civil penalties was "traditionally available only in a court of law," and there was therefore a jury trial right on liability under the Seventh Amendment.[150]

The Court in *Tull* then addressed the issue of whether there was a Seventh Amendment right to a jury for the civil penalty assessment. Finding that the legislative history of the 1977 Amendments to the Clean Water Act indicated a legislative intent to have trial judges "perform the highly discretionary calculation necessary to award civil penalties," the Court stated that "[w]e must decide therefore whether Congress can, consistent with the Seventh Amendment, authorize judges to assess civil penalties."[151] The Court stated that the answer to the question "must depend on whether the jury must shoulder this responsibility as necessary to preserve the 'substance of the common-law right of trial by jury.' "[152] The Court held that the assessment of penalties under the Clean Water Act "cannot be said to involve the 'substance of a common-law right to a trial by jury,' nor a 'fundamental element of a jury trial.' "[153] Based on this assessment, the Congressional intent and the "highly discretionary calculations" that are necessary and of a kind "traditionally performed by judges," the Court stated that "[w]e conclude that the Seventh Amendment required that petitioner's demand for a jury trial be granted

147. *Id.* at 421 n.6 (citations omitted).
148. *Id.* at 418–20.
149. *Id.* at 421–25.
150. *Id.* at 423.
151. *Id.* at 425.
152. *Id.* at 426 (quoting Colgrove v. Battin, 413 U.S. 149, 157 (1973)).
153. *Id.* (quoting *Colgrove*, 413 U.S. at 157 and Galloway v. United States, 319 U.S. 372, 392 (1943)).

to determine his liability, but that the trial court and not the jury should determine the amount of penalty, if any."[154]

The Supreme Court decision in *Markman* cites a number of Seventh Amendment cases, and appears to place significant reliance on *Tull*.[155] In *Markman*, the Court applied the historical test to the statutory cause of action for patent infringement, and found with little discussion that "infringement cases today must be tried to a jury, as their predecessors were more than two centuries ago."[156] Then, similar to *Tull*, the Court looked at the "particular trial decision" of patent claim construction, in order to determine if it must entail a jury trial right "in order to preserve the substance of the common-law right as it existed in 1791."[157] The Supreme Court in *Markman* was unable to answer the question on the basis of "historical evidence,"[158] so the Court considered later precedent as well as "the relative interpretive skills of judges and juries."[159] The later consideration is similar to the discussion in *Tull* of the "highly discretionary calculations" that are "traditionally performed by judges."[160]

Neither the Supreme Court's reliance upon *Tull* in *Markman*, nor general Seventh Amendment law provide support for the *Cybor* ruling that claim construction is a "purely legal question" and should therefore be subject to de novo review on appeal.[161] The analysis in *Tull* involved distinguishing actions at law from actions at equity.[162] The discussion of the calculation of civil penalties in *Tull* refers to both legal and equitable considerations.[163] In the Supreme Court's *Markman* decision, the Seventh Amendment references, particularly the *Tull* reference, support an inference that, while claim construction is left to the judge, the judge can find facts, as necessary, and as judges normally do while exercising their equitable authority.[164] This analysis does not lend support to the de novo

154. *Id.* at 426–27. Justice Scalia, joined by Justice Stevens, concurred in part and dissented in part. The dissenting portion was based on the position that a jury should assess the civil penalty.

It should also be noted that the decision in *Tull* that there is no right to a jury trial for the civil penalty assessment has been described by the Supreme Court as being "in tension" with other Supreme Court cases. Feltner v. Columbia Pictures Television, Inc., 523 U.S. 340, 355 n.9 (1998).

155. Markman v. Westview Instruments, Inc., 517 U.S. 370, 376–78 (1996).

156. *Id.* at 377.

157. *Id.* at 376.

158. *Id.* at 377–84.

159. *Id.* at 384–90.

160. Tull v. United States, 481 U.S. 412, 427 (1987).

161. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc).

162. *Tull*, 481 U.S. at 417–18.

163. *Id.* at 422–23.

164. *See* FED. R. CIV. P. 52(a). This is also consistent with the statements in the Supreme Court's *Markman* decision that if a particular claim construction involves "a question of meaning peculiar to a trade or profession" and "the question is a subject of testimony requiring

standard of review set forth in *Cybor*, which is based on a law versus fact distinction rather than the law versus equity distinction which underlies the historical approach to the Seventh Amendment.

C. *Supreme Court Precedent Regarding Federal Rule of Civil Procedure 52(a)*

Under Federal Rule of Civil Procedure 52(a), in an action tried by the court "without a jury or with an advisory jury," the court is required to "find the facts specifically and state its conclusions of law separately."[165] Such findings by the court are expressly subject to a "clearly erroneous" standard of review "whether based on oral or other evidence," and "the reviewing court must give due regard to the trial court's opportunity to judge the witnesses' credibility."[166]

In *Dennison Manufacturing Co. v. Panduit Corp.*,[167] the United States Supreme Court considered the applicability of Rule 52(a) in a patent case. In *Dennison*, the defendant had raised the defense that the patents it was accused of infringing were invalid on the grounds of "obviousness."[168] After reviewing the prior art introduced during the trial, and identifying differences between the prior art and the asserted patents, the trial judge concluded that the patents were invalid as obvious.[169] On appeal, the Federal Circuit disagreed with the trial court's assessment of the prior art, among other things, and reversed the judgment of the trial court.[170] The Supreme Court granted certiorari to consider the petitioner's argument that the Federal Circuit had not applied the "clearly erroneous" standard of review required by Rule 52(a), but had substituted its view of the facts instead.[171]

In a short decision, the Supreme Court discussed patent validity and obviousness, and noted that, based upon its own precedent, " '[w]hile the ultimate question of patent validity is one of law,' " the determination of obviousness or non-obviousness " 'lends itself to several basic factual

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credibility determinations," this situation "will be subsumed within the necessarily sophisticated analysis of the whole document, required by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole." *Markman*, 517 U.S. at 389. According to the Supreme Court in *Markman*, such an analysis rests with the trial judge: "[w]e accordingly think there is sufficient reason to treat construction of terms of art like many other responsibilities that we cede to a judge in the normal course of trial, *notwithstanding its evidentiary underpinnings*." *Id.* at 390 (emphasis added).

165. FED. R. CIV. P. 52(a)(1).

166. FED. R. CIV. P. 52(a)(6).

167. Dennison Mfg. Co. v. Panduit Corp., 475 U.S. 809 (1986).

168. *Id.*

169. *See id.*

170. Panduit Corp. v. Dennison Mfg. Co., 774 F.2d 1082, 1102 (Fed. Cir. 1985), *vacated*, 475 U.S. 809 (1986) (per curiam).

171. *Dennison*, 475 U.S. at 810.

inquiries,' " which the Court enumerated.[172] The Court then stated that "[t]his description of the obviousness inquiry makes it clear that whether or not the ultimate question of obviousness is a question of fact subject to Rule 52(a), *the subsidiary determinations of the District Court, at the least, ought to be subject to the Rule*."[173] Since the Federal Circuit had not mentioned Rule 52(a) in its decision, the Supreme Court vacated the judgment below and remanded the case to the Federal Circuit "for further consideration in light of Rule 52(a)."[174]

In the *Dennison* decision, the Supreme Court noted that it was disadvantaged in its review of the case by the absence of the Federal Circuit's views on the applicability of Rule 52(a):

> The Federal Circuit, however, did not mention Rule 52(a), did not explicitly apply the clearly-erroneous standard to any of the District Court's findings on obviousness, and did not explain why, if it was of that view, Rule 52(a) had no applicability to this issue. We therefore lack an adequate explanation of the basis for the Court of Appeal's judgment: *most importantly, we lack the benefit of the Federal Circuit's informed opinion on the complex issue of the degree to which the obviousness determination is one of fact*. In the absence of an opinion clearly setting forth the views of the Court of Appeals on these matters, we are not prepared to give plenary consideration to petitioner's claim that the decision below cannot be squared with Rule 52(a).[175]

While the Supreme Court expressed a desire to obtain the Federal Circuit's views on the "degree" to which an obviousness determination implicates facts, it is clear that the Supreme Court held in *Dennison* that Rule 52(a) is applicable to underlying questions of fact in a patent validity determination based upon obviousness. The holding is consistent with the Court's decisions in *Pullman-Standard v. Swint*[176] and *Bose Corp. v. Consumers Union of United States, Inc.*,[177] that the "clearly erroneous" standard of review of Rule 52(a) applies broadly to findings of fact.

> Rule 52(a) broadly requires that findings of fact not be set aside unless clearly erroneous. It does not make exceptions or purport

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172. *Id.* (quoting Graham v. John Deere Co., 383 U.S. 1, 17–18 (1966)).
173. *Id.* at 811 (emphasis added).
174. *Id.*
175. *Id.* (emphasis added).
176. Pullman-Standard v. Swint, 456 U.S. 273, 287 (1982).
177. Bose Corp. v. Consumers Union of United States, Inc., 466 U.S. 485, 501 (1984) ("Rule 52(a) applies to findings of fact, including those described as 'ultimate facts' because they may determine the outcome of litigation.").

> to exclude certain categories of factual findings from the obligation of a court of appeals to accept a district court's findings unless clearly erroneous. It does not divide facts into categories; in particular, it does not divide findings of fact into those that deal with "ultimate" and those that deal with "subsidiary" facts.[178]

In both its *Markman* and *Cybor* decisions, the majority of the Federal Circuit avoided the "clearly erroneous" standard of Rule 52(a) and the related Supreme Court precedent by defining claim construction as a "purely legal question,"[179] over vigorous dissents.[180] However, the Federal Circuit's position that claim construction is "purely legal" is not principled as it conflicts with the Supreme Court's *Markman* analysis in the Seventh Amendment context. As a result, the Federal Circuit's position, expressed in both its *Markman* and *Cybor* decisions, that claim construction should be reviewed de novo represents an unprincipled run-around Rule 52(a) and the Supreme Court's decision in *Dennison*.

Nevertheless, at least one scholar has suggested that the Supreme Court may have intended in *Dennison* to afford the Federal Circuit considerable discretion in deciding whether questions arising in patent cases constitute questions of fact or law, particularly with regard to the standard of appellate review.[181] Therefore, it is instructive to inquire further. Is the Federal Circuit's position in *Markman* and *Cybor* that claim construction is "purely legal" in keeping with the Supreme Court's expressed desire in *Dennison* to obtain the Federal Circuit's "informed opinion" on a "complex issue" of the degree to which a patent law determination may involve a factual component?[182] If so, how does that jibe with the Seventh Amendment?

II. Should the Federal Circuit Determine the Fact Versus Law Divide in Patent Matters?

In the context of determining the appropriate standard of review on appeal, the Supreme Court has frequently acknowledged that distin-

178. *Pullman-Standard*, 456 U.S. at 287.

179. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995); Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc).

180. *Markman*, 52 F.3d at 989–1026; *Cybor*, 138 F.3d at 1462–81.

181. *See* Burgess, *supra* note 1, at 769–70. With respect to *Dennison*, Burgess states that "the Supreme Court indicated that it might be receptive to an explanation that Rule 52(a) somehow did not apply in that case . . . ."). *Id.*

182. See Dennison Mfg. Co. v. Panduit Corp., 475 U.S. 809, 811 (1986) (per curiam).

guishing between issues of fact and law can be difficult.[183] The Court has referred to the "vexing nature" of the distinction, and has noted that Rule 52(a) fails to provide "particular guidance" with respect to the task.[184] Moreover, the Court has admitted "the practical truth that the decision to label an issue a 'question of law,' a 'question of fact,' or a 'mixed question of law and fact' is sometimes as much a matter of allocation as it is of analysis."[185]

Should the Federal Circuit decide where the fact versus law divide should be drawn in patent matters on the theory that the boundary is really one of convenience?

A number of legal commentators have taken the position that the terms "fact" and "law" cannot be adequately defined or distinguished. Some have postulated that "fact" and "law" do *not* specify "different kinds of entities," and that there is *no* "qualitative or ontological distinction between them," but only "pragmatic differences."[186] It has been argued that the terms are "equally expansible and collapsible" and that they "readily accommodate themselves to any meaning we desire to give them."[187] It has also been stated that "questions of fact" and "questions of law" do not represent "two mutually exclusive kinds of questions, based upon a difference of subject matter," and that drawing a line between them is simply an "artificial cleavage" that is cut by the "knife of policy."[188]

The rationale set forth for the de novo standard of review for patent claim construction in the Federal Circuit's *Markman* and *Cybor* decisions appears to fall into the pragmatic school of thought. The enunciated standard of review may be considered one of expediency, based largely on policy considerations. The majority of the Federal Circuit in its en banc decision in *Markman* held that claim construction is subject to de novo review on appeal because it is a "matter of law."[189] While the majority stated that a patent is a "fully integrated written instrument" and briefly cited precedent for the position that "the construction of a written evidence is exclusively with the court"[190] to

183. Bose Corp. v. Consumers Union of United States, Inc., 466 U.S. 485, 501 (1984); *Pullman-Standard*, 456 U.S. at 288; Baumgartner v. United States, 322 U.S. 665, 671 (1944).

184. *Bose Corp.*, 466 U.S. at 501; *Pullman-Standard*, 456 U.S. at 288.

185. Miller v. Fenton, 474 U.S. 104, 106 (1985).

186. Ronald J. Allen & Michael S. Pardo, *The Myth of the Law-Fact Distinction*, 97 Nw. U. L. Rev. 1769, 1770 (2003).

187. Leon Green, Judge and Jury 270 (1930).

188. John Dickinson, Administrative Justice and the Supremacy of Law in the United States 55 (1927).

189. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995).

190. *Id.* at 978 (quoting Levy v. Gadsby, 7 U.S. (3 Cranch) 180, 186 (1805) (Marshall, C.J.)).

support its characterization of claim construction as a matter of law, the majority relied heavily on the policy considerations of certainty and consistency to support its holding.[191] The majority emphasized that it was important to have a judge "trained in the law" undertake the claim construction in order to "arrive at the *true and consistent scope* of the patent owner's rights to be given legal effect."[192] This result would flow from a characterization of claim construction as solely a matter of law, and would in turn dictate de novo appellate review. Similarly, in its en banc decision in *Cybor*, the majority of the Federal Circuit reaffirmed the de novo standard of review and relied heavily on the policy of promoting uniformity in claim constructions, quoting from the penultimate paragraph in the Supreme Court's *Markman* decision:

> [T]he [Supreme] Court expressly stated that "treating interpretive issues as *purely legal* will promote (though not guarantee) intrajurisdictional certainty through the application of *stare decisis* on those questions not yet subject to interjurisdictional uniformity under the authority of the single appeals court." . . . *Indeed, the sentence demonstrates that the Supreme Court endorsed this court's role in providing national uniformity to the construction of a patent claim, a role that would be impeded if we were bound to give deference to a trial judge's asserted factual determinations incident to claim construction*.[193]

In short, the de novo standard of review for claim construction theoretically allows the Federal Circuit to pursue uniform results in the construction of any given patent claim.[194] Moreover, the de novo standard of review is simple and convenient. By defining all issues related to claim construction as "matters of law" in its *Markman* and *Cybor* decisions, the Federal Circuit in one fell swoop relegated patent trials, at least in their claim construction aspects, to the level of advisory opinions.

However, allowing the Federal Circuit to dictate where the division between fact and law is drawn based upon convenience is not principled. By defining any and all issues related to claim construction as "matters of law," the Federal Circuit has indirectly held that the term "fact" in the

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191. *Id.* at 978–79; *see supra* note 68.

192. *Id.* at 979.

193. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1455 (Fed. Cir. 1998) (citations omitted) (third emphasis added).

194. In fact, one of the commentators who has espoused the position that there is no "essential difference" between questions of law and questions of fact has stated that even the Supreme Court's decision in *Markman* "provides yet another demonstration of the analytically empty but *pragmatically important* concept of 'questions of law.'" Allen & Pardo, *supra* note 186, at 1784 (emphasis added).

Seventh Amendment does not apply to any issue or underlying issue relevant to claim construction. The Federal Circuit is, in effect, acting as its own lexicographer with respect to the meaning of the Seventh Amendment and its application to patent claim construction. Allowing such latitude to the Federal Circuit runs afoul of Seventh Amendment principles.

While a number of legal commentators have proposed the pragmatic and arguably cynical view that there is no difference between issues of "fact" and "law," there are other legal scholars who refute this position, contending that there is an analytical distinction between such issues.[195] Professor Henry P. Monaghan has stated that the argument that the distinction between fact and law is "fundamentally incoherent" is itself "greatly overdrawn."[196] One of his major arguments, that the categories of "fact" and "law" must have some distinction and meaning, rests in the text of the United States Constitution.

> Most important, they find expression in the constitutional text. Article III invests Congress with power over the Supreme Court's appellate jurisdiction "both as to Law and Fact," and the seventh amendment provides that "no fact tried by a jury, shall be otherwise re-examined . . . than according to the rules of the common law." Quite clearly, any analysis that purports to take the constitutional text seriously must try to make some sense out of these categories.[197]

Moreover, while the Supreme Court has repeatedly noted that drawing the line between "fact" and "law" is a difficult and "vexing" task, the Court has nevertheless emphasized the need to draw the distinction: "[w]hat we have characterized as the 'vexing nature' of that distinction, *ibid.*, does not, however, diminish its importance, or the importance of the principles that require the distinction to be drawn in certain cases."[198]

Furthermore, although the Supreme Court expressed a desire in the *Dennison* case to obtain the Federal Circuit's "informed opinion" on a "complex issue" of the degree to which a patent law determination may involve a factual component,[199] this should not be read as indicating that the Federal Circuit's view would govern such a determination. Rather, the Supreme Court has stated with respect to issues of fact and issues of

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195. Richard D. Friedman, *Standards of Persuasion and the Distinction Between Fact and Law*, 86 NW. U. L. REV. 916, 917–19 (1992); Henry P. Monaghan, *Constitutional Fact Review*, 85 COLUM. L. REV. 229, 232–39 (1985).

196. Monaghan, *supra* note 195, at 233.

197. *Id.* at 233–34 (footnotes omitted).

198. Bose Corp. v. Consumers Union of United States, Inc., 466 U.S. 485, 501 (1984).

199. Dennison Mfg. Co. v. Panduit Corp., 475 U.S. 809, 811 (1986).

law that "[w]here the line is drawn varies according to the nature of the substantive law at issue."[200] Therefore, it would be helpful to the Supreme Court, as is usually the case, to have the considered opinion of the appellate court for consideration, particularly when the appellate court is a specialized court. While a decision on the boundary between fact and law needs to be made in the context of patent law, however, it is not a question of patent law. It is a question of constitutional significance.

With respect to the standard of appellate review of patent claim construction, the constitutional significance of the issue has been highlighted by the Federal Circuit itself. In reaffirming and establishing a de novo standard of appellate review, the Federal Circuit set forth a rationale in *Cybor* that is inextricably tied into the rationale of its *Markman* decision, which directly involved a Seventh Amendment issue. The ultimate analysis of Seventh Amendment issues is a matter for the Supreme Court. Similarly, the ultimate determination regarding the fact versus law divide, as far as it relates to the appellate standard of review of patent claim construction, should rest with the Supreme Court and not be left to the Federal Circuit.

Moreover, if the Supreme Court were to cede ultimate authority to the Federal Circuit to draw the fact versus law distinction in a manner that dictates de novo review of claim construction by the Federal Circuit, the principles that underlie the proper functioning of the federal court system would be upset. Congress has given the Federal Circuit exclusive jurisdiction of appeals from cases in all trial courts if the jurisdiction of the trial court was based, in whole or in part, on an asserted patent claim, as well as exclusive jurisdiction of appeals from decisions of the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office with respect to patent applications and interferences.[201] However, the decisions of the Federal Circuit are still subject to review by the U.S. Supreme Court by statute.[202]

The Supreme Court, by failing to decide more Seventh Amendment issues in the patent law context, and by turning down numerous petitions for certiorari on the appropriate standard of appellate review for patent claim construction,[203] has arguably given too much deference to the Fed-

200. *Bose Corp.*, 466 U.S. at 501 n.17.

201. 28 U.S.C. § 1295 (2000).

202. 28 U.S.C. § 1254 (1988); *see* Debra D. Peterson, *Can This Brokered Marriage Be Saved? The Changing Relationship Between the Supreme Court and Federal Circuit in Patent Law Jurisprudence*, 2 J. MARSHALL REV. INTELL. PROP. L. 201, 202 (2003) (stating that the Federal Circuit was "never intended to be the de facto Supreme Court for patent issues").

203. Amgen Inc. v. Hoechst Marion Roussel, Inc., 457 F.3d 1293 (Fed. Cir. 2006), *reh'g denied*, 469 F.3d 1039 (Fed. Cir. 2006), *cert. denied*, 127 S. Ct. 2270 (2007); Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc), *cert. denied*, 126 S. Ct. 1332 (2006); CVI/Beta Ventures, Inc. v. Tura LP, 120 F.3d 1260 (Fed. Cir. 1997), *cert. denied*, 118 S. Ct.

eral Circuit. The Federal Circuit, in turn, based upon its de novo review of patent claim construction, gives the district courts no recognized deference in this area.

As an intermediate appellate court, the Federal Circuit should define and refine the law, subject to supervision by the Supreme Court, and should supervise the trial courts in their application of the law.[204] The Supreme Court has stated that "independent appellate review of legal issues best serves the dual goals of doctrinal coherence and economy of judicial administration."[205] On the other hand, the Supreme Court and Congress have recognized that based upon "the respective institutional advantages of trial and appellate courts," deference is due the trial courts in ascertaining facts.[206]

> In deference to the unchallenged superiority of the district court's factfinding ability, Rule 52(a) commands that a trial court's findings of fact "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."[207]

Deferential review is also warranted for mixed questions of fact and law "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."[208]

Ironically, one of the greatest obstacles in the path to achieving uniformity and clarity in the law of claim construction has been the overwhelming desire of the Federal Circuit to get the "right" result in any particular case. The federal court system operates by striving to achieve the "right" results by applying the "right" institutional processes. The Federal Circuit should not operate in an outcome determinative manner to reach what it believes to be the "right" decision in individual cases by applying rationales and rules that are expedient in the short run. The Federal Circuit has been criticized for finding facts contrary to its position as an appellate court,[209] and this criticized practice has been

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1039 (1998); Gen. Am. Transp. Corp. v. Cryo-Trans, Inc., 93 F.3d 766 (Fed. Cir. 1996), *cert. denied*, 117 S. Ct. 1334 (1997).

204. Salve Regina Coll. v. Russell, 499 U.S. 225, 231–33 (1991). "Courts of appeals, on the other hand, are structurally suited to the collaborative juridical process that promotes decisional accuracy. With the record having been constructed below and settled for purposes of the appeal, appellate judges are able to devote their primary attention to legal issues." *Id*. at 232.

205. *Id.* at 231.

206. *Id.* at 233.

207. *Id. See also* Phillips v. AWH Corp., 415 F.3d 1303, 1334 (Fed. Cir. 2005) (en banc) (Mayer, J., joined by Newman, J., dissenting).

208. *Salve Regina Coll.*, 499 U.S. at 233 (citations omitted).

209. William C. Rooklidge & Mathew F. Weil, *Judicial Hyperactivity: The Federal Circuit's Discomfort with Its Appellate Role*, 15 BERKELEY TECH. L.J. 725 (2000).

institutionalized in the area of claim construction by virtue of the de novo standard of review. This has caused a breakdown in the hierarchy and principled functioning of the appellate system in patent cases.

The district court judges, under the Supreme Court's Seventh Amendment analysis in *Markman*, are more than capable of construing patent claims by both finding facts as needed pursuant to Federal Rule of Civil Procedure 52(a), and applying the law of claim construction as announced by the Federal Circuit. When appropriate as a matter of law, cases can and should be overturned and remanded by the Federal Circuit, as is expected under our federal court system. Uniformity in the law is more likely to prevail if the Federal Circuit adheres to its appropriate obligations of "responsible appellate jurisdiction."[210]

Therefore, in order to protect Seventh Amendment principles, and to facilitate the proper functioning of the federal court system, the Federal Circuit should not be the court that determines the ultimate boundary between "fact" and "law" in patent cases for purposes of setting the standard of appellate review of claim construction. The Federal Circuit should not be its own lexicographer in this regard. Rather, it is ultimately the responsibility of the Supreme Court to distinguish between "fact" and "law," given the Seventh Amendment principles at stake, and the appropriate standard of appellate review for patent claim construction should take these principles into account.

III. Evaluating Proposed Standards of Appellate Review of Patent Claim Construction

Many patent law commentators have analyzed the issue of the appropriate standard of appellate review of patent claim construction as if it were essentially a practical problem in need of an expedient solution, perhaps unconsciously accepting the position that there are no reliable distinctions between "fact" and "law," other than those delineated by policy considerations. There have been numerous articles written that have addressed a perceived need to change the currently applied de novo standard of review as a result of high reversal rates in patent cases due to error assigned to patent claim constructions.[211] Many, if not most, of

210. *Salve Regina Coll.*, 499 U.S. at 231.

211. *See, e.g.*, Krinsky, *supra* note 14. Krinsky cites the high reversal rate in patent cases, *id.* at 194, and argues that deference should be given to the trial court's underlying fact-finding in claim construction, "but only in the exceptional case where recourse to extrinsic testimony is necessary and appropriate." *Id.* at 199. *See also* Burgess, *supra* note 1; Donald R. Dunner, Cybor Corp. v. FAS Technologies*: The Final Say on Appellate Review of Claim Construction?*, 80 J. Pat. & Trademark Off. Soc'y 481 (1998); M. Reed Staheli, *Deserved*

these commentators take a pragmatic approach to solving the perceived practical problems.[212]

A number of Federal Circuit judges have also cited practical problems that have resulted from the application of the de novo standard of review as grounds for possible reconsideration of *Cybor*. In an order issued three years ago in *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, a majority of the Federal Circuit judges denied a combined request for either a panel rehearing or a rehearing en banc in a case which had been reversed and remanded for error assigned to the claim construction.[213] In four separate dissents from the order, four of the Federal Circuit judges stated that they were in favor of an en banc hearing in the case to reconsider the de novo standard of review reaffirmed in *Cybor*.[214] Two of those judges cited four specific "practical problems" that had arisen under the de novo standard of review: (1) a high reversal rate, (2) a lack of predictability in the appeals process, (3) a loss of the "comparative advantage often enjoyed by the district court judges" who had heard and read the evidence and may have spent considerable time on the claim constructions, and (4) the burden on the Federal Circuit of construing claims "in nearly every patent case."[215] Another judge pointed out that, in general, the de novo standard of review for claim construction had "not well withstood the test of experience."[216] In fact, at this point, it appears that at least half of the Federal Circuit judges are on the record as favoring a reconsideration of *Cybor*'s de novo standard of review.[217]

Deference: Reconsidering the De Novo Standard of Review for Claim Construction, 3 MARQ. INTELL. PROP. L. REV. 181 (1999).

212. *See* Krinsky, *supra* note 14. Krinsky refers to deference being given "for policy reasons," *id.* at 213, and states that "[t]he precise standard of review is less important than the idea that some deference is due," *id.* at 203 n.41. *See also* Burgess, *supra* note 1, at 792 (Burgess offers two different solutions to obtain the practical result sought: either "treat claim construction as a mixed question of law and fact" or "leave *Cybor* as good law, but try to cabin its effects by explaining its holding differently."); Dunner, *supra* note 211, at 497 (Dunner makes the practical argument that "[a]t the very least, it can be urged that functional considerations recognized by the Supreme Court strongly favor according some deference in reviewing a trial court's claim construction, particularly where the meaning of a claim turns on evidence better adduced and evaluated at trial.").

213. Amgen Inc. v. Hoechst Marion Roussel, Inc., 469 F.3d 1039 (Fed. Cir. 2006).

214. *Id.* at 1040–41 (Michel, C.J., dissenting, joined by Rader, J.); *id.* at 1043 (Newman, J., dissenting); *id.* at 1044–45 (Rader, J., dissenting); *id.* at 1046 (Moore, J., dissenting).

215. *Id.* at 1040 (Michel, C.J., dissenting, joined by Rader, J.).

216. *Id.* at 1043 (Newman, J., dissenting).

217. The sixteen judges who are currently members of the Federal Circuit are Chief Judge Michel, and Circuit Judges Friedman, Newman, Archer, Mayer, Plager, Lourie, Clevenger, Rader, Schall, Bryson, Gajarsa, Linn, Dyk, Prost, and Moore. United States Court of Appeals for the Federal Circuit—Judicial Biographies, http://www.cafc.uscourts.gov/judgbios.html (last visited Feb. 18, 2009). At least eight of these judges have indicated either a desire or a willingness to reconsider the de novo standard of review of patent claim construction. Chief Judge Michel stated in *Amgen* that "I believe the time has come for us to

However, while a number of Federal Circuit judges, numerous academics, patent practitioners and even members of Congress have cited significant practical problems that have resulted from the application of a de novo standard of review to claim construction, there is no clear consensus among critics of *Cybor* as to what degree of deference should be given to a trial court's claim construction in patent cases.

There are a number of different views as to the appropriate standard of appellate review of claim construction that have been expressed in opinions by members of the Federal Circuit. While some of the judges nominally adhere to a de novo standard of review in decisions, they have expressed views that appear to embrace a more flexible standard of review in which some undefined amount of deference is given to the trial judge's claim construction.[218] Some of the other judges have indicated

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reexamine *Cybor*'s no deference rule." *Amgen*, 469 F.3d at 1041 (Michel, C.J., dissenting, joined by Rader, J.). Judges Newman and Rader have expressed their opposition to the de novo standard of review. *Id.* at 1043 (Newman, J., dissenting); *id.* at 1044 (Rader, J., dissenting). Judge Moore has stated that the court should reconsider de novo review. *Id.* at 1046 (Moore, J., dissenting). Judges Gajarsa, Linn and Dyk, while concurring in the denial of a rehearing en banc in *Amgen*, stated as follows: "Our concurrence should not be read as an endorsement of the panel's claim construction in this particular case, nor as an unqualified endorsement of the en banc decision in *Cybor*. In an appropriate case we would be willing to reconsider limited aspects of the *Cybor* decision." *Id.* at 1045 (Gajarsa, Linn and Dyk, JJ., concurring) (citation omitted). Judge Mayer wrote a scathing rebuke of the de novo standard of review of patent claim construction in *Phillips*. Phillips v. AWH Corp., 415 F.3d 1303, 1330–35 (Fed. Cir. 2005) (en banc) (Mayer, J., joined by Newman, J., dissenting).

218. Judge Lourie has stated that "even though claim construction is a question of law, reviewable by this court without formal deference, I do believe that we ought to lean toward affirmance of a claim construction in the absence of a strong conviction of error." *Phillips*, 415 F.3d at 1330 (Lourie, J., concurring in part and dissenting in part). As previously discussed, Judge Plager supported a de novo standard of review in *Cybor*, but stated that "common sense dictates that the trial judge's view will carry weight," although "[t]hat weight may vary depending on the care, as shown in the record, with which that view was developed, and the information on which it is based." Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1465 (Fed. Cir. 1998) (en banc) (Plager, J., concurring); *see supra* note 47 and accompanying text. Judge Bryson similarly supported the de novo standard of review in *Cybor*, but stated that although the court considered claim construction an issue of law, that "does not mean that we intend to disregard the work done by district courts in claim construction or that we will give no weight to a district court's conclusion as to claim construction, no matter how the court may have reached that conclusion." *Cybor*, 138 F.3d at 1463 (Bryson, J., concurring). As previously discussed, Judge Bryson indicated in *Cybor* that when competing expert testimony is involved in resolving a claim construction issue, it is appropriate "to factor into our legal analysis the district court's superior access to one of the pertinent tools of construction." *Id. See supra* note 47 and accompanying text. Judge Bryson did not espouse the position that in such instances there would be a factual issue at stake, but explained his position as follows:

> That does not mean that we defer to a district court on legal matters unless we find that the court has committed clear error with respect to an issue that should be characterized as factual. What it means is that we approach the legal issue of claim construction recognizing that with respect to certain aspects of the task, the district court may be better situated than we are, and that as to those aspects we should be cautious about substituting our judgment for that of the district court.

that while they believe that no deference is due to a trial judge's interpretation of the claim language, written description or prosecution history, they would consider revising the de novo standard of review to possibly afford some deference to the trial court in situations in which conflicting expert testimony was weighed by the trial judge in determining the meaning of a patent claim.[219] Some of the judges have indicated that they believe there are "factual determinations" involved in claim construction, and have taken the position that "perhaps we should routinely give at least some deference to the trial court, given its greater knowledge of the facts" or make some "other adjustments to our current practice."[220] At least two judges have not only taken the position that there are factual issues involved in claim construction, but have also taken the position that under Federal Rule of Civil Procedure 52(a), a clearly erroneous standard of review should apply to such factual issues, including not only matters of witness credibility but also "those findings of fact based entirely on documentary evidence."[221] In a fairly recent decision of the Federal Circuit, a panel applied the de novo standard of review but expressly noted that the outcome would have been the same under a clearly erroneous standard.[222]

Cybor, 138 F.3d at 1463 (Bryson, J., concurring).

219. Judges Gajarsa, Linn and Dyk have expressed the following position:

> In an appropriate case we would be willing to reconsider limited aspects of the *Cybor* decision. In our view an appropriate case would be the atypical case in which the language of the claims, the written description, and the prosecution history on their face did not resolve the question of claim interpretation, and the district court found it necessary to resolve conflicting expert evidence to interpret particular claim terms in the field of the art.

Amgen, 469 F.3d at 1045 (Garjarsa, Linn and Dyk, JJ., concurring in the denial of the petition for rehearing en banc).

220. Chief Judge Michel expressed these views in *Amgen*. *Id.* at 1041 (Michel, C.J., dissenting, joined by Rader, J.). Judge Rader stated that "I urge this court to accord deference to the factual components of the lower court's claim construction." *Id.* at 1044 (Rader, J., dissenting).

221. Judges Mayer and Newman have supported this approach. *See Phillips v. AWH Corp.*, 415 F.3d at 1331–32 (Mayer, J., joined by Newman, J., dissenting) (stating that "the nature of the questions underlying claim construction illustrate that they are factual and should be reviewed in accordance with Rule 52(a)," and pointing out that this deference should apply not only to credibility determinations, but to findings of fact based on documentary evidence).

222. Tivo, Inc. v. Echostar Communic'ns Corp., 516 F.3d 1290, 1307–08 n.2 (Fed. Cir. 2008), *reh'g and reh'g en banc denied, cert. denied*, 129 S. Ct. 306 (2008). In *Tivo*, an infringement suit involving hardware and software technology for time shifting television signals, a panel of the Federal Circuit upheld the trial court's construction of the term "object" in the software claims, stating as follows:

> As noted, the district court based its construction of the software claims on its conclusion as to what the critical claim terms would mean to a person of skill in the art. That conclusion in turn was largely based on the court's assessment of extrinsic evidence. Although we have characterized claim construction as a question of law

While the de novo standard of review has been widely acknowledged as creating, or at least contributing to, a number of practical problems, the choice of an appropriate standard of appellate review should be based upon legal principles and precedent, not expediency. It is therefore instructive to consider the different standards of review that have been proposed and evaluate them in light of governing cases and legal principles. For purposes of such consideration, the suggested standards of review have been grouped in the discussion below into three categories: (1) de novo review, (2) the clearly erroneous standard of review, and (3) review based on independent judgment.

A. *De Novo Review*

As discussed, the Federal Circuit currently applies a de novo standard of review under *Cybor*, formally granting no deference to the trial court's patent claim construction. In applying this standard, the Federal Circuit stated in *Accumed LLC v. Stryker Corp.* that the court reviews "only the district court's finished product, not its process."[223] This de novo standard of review is based upon the holding of the Federal Circuit that claim construction is "a purely legal question."[224] As discussed herein, this position was initially taken by the Federal Circuit in its en banc decision in *Markman*, a case involving a Seventh Amendment issue, and was reaffirmed in *Cybor* on the expressly stated basis that the Supreme Court's *Markman* decision confirmed the position that claim construction is "purely legal."[225]

> even when it involves competing presentations of extrinsic evidence, Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc), we recognize that there is substantial force to the proposition that such a conclusion is indistinguishable in any significant respect from a conventional finding of fact, to which we typically accord deference. *See* Amgen Inc. v. Hoechst Marion Roussel, Inc., 469 F.3d 1039, 1041 (Fed. Cir. 2006) (Michel, C.J., dissenting from denial of rehearing en banc); id. at 1043 (Newman, J., dissenting from denial of rehearing en banc); *id.* at 1044 (Rader, J., dissenting from denial of rehearing en banc); *id.* at 1045 (Gajarsa, J., concurring in denial of rehearing en banc); *id.* at 1046 (Moore, J., dissenting from denial of rehearing en banc). Applying our governing nondeferential standard of review, we uphold the district court's conclusion in this case. If we were to treat that ruling as a finding of fact, we would uphold the district court's ruling *a fortiori* in light of the more deferential "clear error" standard applicable to factual findings.
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> *Id.*

223. Accumed LLC v. Stryker Corp., 483 F.3d 800, 809 n.2 (Fed. Cir. 2007). In discussing the application of the de novo standard of review, the court stated that the "atmospherics" of a *Markman* claim construction hearing are "legally irrelevant." *Id.*

224. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1451 (Fed. Cir. 1998).

225. *Id.* at 1456; *see supra* notes 36–43 and accompanying text.

However, as previously demonstrated, a careful analysis of the Supreme Court's decision in *Markman* reveals that the Supreme Court did not take a position that claim construction is "purely legal" in its Seventh Amendment analysis. Rather, when read in the context of the Seventh Amendment framework employed by the Supreme Court, the words chosen by the Supreme Court in characterizing claim construction as a "mongrel practice" and as involving an issue which "falls somewhere between a pristine legal standard and a simple historical fact" are incompatible with such a position. The distinction between an issue of fact and law is one of constitutional significance under the Seventh Amendment. It is not principled to base a standard of review on a determination of the fact versus law divide made by the Federal Circuit that is at all inconsistent with the Supreme Court's Seventh Amendment analysis as related to the same fact versus law divide.

The Supreme Court did not decide the issue of the appellate standard of review for patent claim construction in *Markman*. The policy statements made by the Supreme Court in the penultimate paragraph of *Markman* have created tension within the decision, as previously discussed. It would be helpful and instructive if the Supreme Court would clarify these issues. However, the Supreme Court did expressly label the policy discussion concerning uniformity as an "independent reason" for having judges, rather than juries, construe patent claims. In the absence of a direct ruling from the Supreme Court on the issue of the appropriate standard of review on appeal, it appears principled to focus on the Seventh Amendment analysis in the Supreme Court's *Markman* decision in determining the fact versus law divide.

Therefore, since the *Cybor* rule of de novo review of patent claim construction is expressly based on the grounds that claim construction is "purely legal," and it is incompatible with the Supreme Court's Seventh Amendment analysis in *Markman*, it is not principled.

B. *Clearly Erroneous Review Under Rule 52(a)*

The "clearly erroneous" standard of review under Rule 52(a) is a leading candidate for a principled standard of appellate review for patent claim construction based upon the Supreme Court's Seventh Amendment decision in *Markman*, and its decision in *Dennison*.

On its face, Rule 52(a) states that factual findings "must not be set aside unless clearly erroneous."[226] As previously discussed, Rule 52(a) has repeatedly been held to apply broadly to factual findings of a judge, without excepting any categories of fact, such as ultimate facts or

226. FED. R. CIV. P. 52(a)(6).

subsidiary facts.[227] The clearly erroneous standard of Rule 52(a) applies to factual findings of a judge "whether based on oral or other evidence,"[228] and is not limited to determinations made by a trial judge in assessing the credibility of witnesses.[229]

The application of Rule 52(a) in patent claim construction is consistent with the Supreme Court's decisions in both *Markman* and *Dennison*. While the Supreme Court held in *Markman* that claim construction is "exclusively within the province of the court,"[230] it did not define claim construction as solely an issue of law in its Seventh Amendment analysis, but instead chose language that characterized claim construction as an issue involving a mix of fact and law.[231] Moreover, in *Dennison*, the Supreme Court held that Rule 52(a) is applicable to patent cases in which a mixed issue of fact and law arises.[232]

It has been proposed that Rule 52(a) should not apply to the Federal Circuit in the same manner that it is applied to other federal appellate courts, despite the Supreme Court's decision in the *Dennison* case. Professor Rochelle Cooper Dreyfuss has questioned the wisdom of applying Rule 52(a) without modification to the Federal Circuit in its position as a specialized court.[233] She has argued that the assumption underlying Rule 52(a) "breaks down," since the trial court is not in as good a position as the Federal Circuit to decide factual issues as a result of the Federal Circuit's relevant expertise and experience.[234] She has pointed out that since "many if not most complex questions in patent law pose mixed fact/law questions that are not easily disentangled," application of "the usual interpretation" of Rule 52(a) to the Federal Circuit will "waste judicial resources to disentangle the threads that went into the trial court's judgement," and create a burden on the court to spend considerable time

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227. *See supra* notes 73–75 and accompanying text.

228. FED. R. CIV. P. 52(a)(6).

229. Anderson v. City of Bessemer, 470 U.S. 564, 574 (1985); *see also* Phillips v. AWH Corp., 415 F.3d 1303, 1332 (Fed. Cir. 2005) (en banc) (Mayer, J., joined by Newman, J., dissenting) (stating, in the context of claim construction, that "[e]ven those findings of fact based entirely on documentary evidence are entitled to deference.").

230. Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996).

231. *See supra* notes 111, 95, 100, 105 and accompanying text.

232. *See supra* Part I.C.

233. Dreyfuss, *supra* note 7, at 47–52, 61–62.

234. *Id.* at 48.

> Where, however, the trial court is composed of generalists and the appellate court is staffed to deal with the complex factual issues being tried, the assumption breaks down, for the appellate court is at least as well situated to find the facts as the trial court. A trial judge who has never read a technical document before is less likely to interpret it correctly, no matter how many witnesses are called to testify, than an appellate judge who has extensive experience in dealing with such matters.

Id.

"explicating what it considers fact and what it considers law."[235] Finally, Professor Dreyfuss has expressed concern that Rule 52(a) will interfere with the Federal Circuit's congressional mandate to bring uniformity to patent law.[236]

While there is some merit to the observations made by Professor Dreyfuss, the governing law does not provide an alternate framework for Rule 52(a) in patent cases. When Congress enacted legislation establishing the Federal Circuit as a specialized court, it did not establish specialized rules that would override Rule 52(a).[237] As stated above, in *Dennison*, the Supreme Court ruled that Rule 52(a) is applicable in a patent case. Moreover, it is preferable as a policy matter not to employ special rules for the Federal Circuit. Applying the Rule 52(a) standard of review to patent cases at the Federal Circuit adheres to the obligation of "responsible appellate jurisdiction" as explained by the Supreme Court.[238] This in turn places the emphasis on uniformity in the formulation of the law, as previously discussed, rather than uniformity in the application of the law in order to achieve "correct" results in individual cases and for individual patents.[239]

Moreover, the application of Rule 52(a) to claim construction is not only principled as a matter of law, it is feasible. As one of the Federal Circuit judges has aptly remarked, albeit in a dissent, "[t]here are some scenarios where it is difficult to weed facts from law, but claim construction is not one of them."[240] Trial judges routinely assess underlying facts in many areas of the law, and deserve deference due to their "unique role" in performing this task.[241]

C. *Review Based upon Independent Judgment*

It has been proposed that the Federal Circuit could review the claim construction of the district courts under a theory of heightened scrutiny

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235. *Id.* at 48–49.

236. *Id.* at 49–50.

237. *See* The Federal Court Improvements Act, Pub. L. No. 97-164, 96 Stat. 25 (1982) (relevant provisions codified as amended in scattered sections of Title 28 of the U.S. Code).

238. Salve Regina Coll. v. Russell, 499 U.S. 225, 231 (1991).

239. *See* Monaghan, *supra* note 195, at 276 ("The judicial duty of appellate courts is, I submit, limited to saying what the law is."). In the policy discussion in the penultimate paragraph in *Markman*, the Supreme Court focused on uniformity in the application of the law rather than uniformity in the formulation of the law, a focus that may be unfortunate. *See* Markman v. Westview Instruments, Inc., 517 U.S. 370, 390 (1996) ("Finally, we see the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court.").

240. Phillips v. AWH Corp., 415 F.3d 1303, 1334 n.7 (Fed. Cir. 2005) (en banc) (Mayer, J., joined by Newman, J., dissenting).

241. O'Malley, Saris & Whyte, *supra* note 31, at 679.

akin to so-called "constitutional fact review."[242] In *Bose Corp. v. Consumers Union of United States, Inc.*,[243] the Supreme Court held that an appellate court must exercise independent judgment as a matter of "federal constitutional law" under *New York Times Co. v. Sullivan*[244] with regard to a trial court's finding of actual malice in a defamation case.

> The question whether the evidence in the record in a defamation case is of the convincing clarity required to strip the utterance of First Amendment protection is not merely a question for the trier of fact. Judges, as expositors of the Constitution, must independently decide whether the evidence in the record is sufficient to cross the constitutional threshold that bars the entry of any judgment that is not supported by clear and convincing proof of "actual malice."[245]

In applying this "federal constitutional law" of independent judgment, the Supreme Court stated that "[w]e hold that the clearly erroneous standard of Rule 52(a) of the Federal Rules of Civil Procedure does not prescribe the standard of review to be applied in reviewing a determination of actual malice."[246]

While it is true that the ultimate authority for the granting of patents is set forth in the Constitution,[247] it would be hard to sustain an argument that the construction of the meaning and scope of claims within any individual patent is an issue of such constitutional significance that it requires application of the independent judgment rule. Citing the application of this principle of federal constitutional law as authorizing de novo review in First and Fourth Amendment cases where facts are "intertwined with a constitutional standard," one of the judges on the Federal Circuit assessed the applicability of this type of review to claim construction as follows: "[w]hile appearing from the perspective of this court's limited sphere of influence to be dreadfully important, claim construction does not implicate a constitutional value."[248]

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242. *See* Dreyfuss, *supra* note 7, at 50 n.268.
243. Bose Corp. v. Consumers Union of United States, Inc., 466 U.S. 485, 501 (1984).
244. N.Y. Times Co. v. Sullivan, 376 U.S. 254 (1964).
245. *Bose Corp.*, 466 U.S. at 511.
246. *Id.* at 514.
247. U.S. CONST. art. I, § 8, cl. 8.
248. Phillips v. AWH Corp., 415 F.3d 1303, 1331 n.4 (Fed. Cir. 2005) (en banc) (Mayer, J., joined by Newman, J., dissenting).

Conclusion

Cybor is not a principled decision. It is not consistent with a fair reading of the Supreme Court's *Markman* decision, particularly when *Markman* is analyzed with the rigor applied to the construction of patent claims themselves. Reviewing the words used by the Supreme Court in its holding, in the context of the opinion as a whole, and analyzed in light of the decision of the Federal Circuit below, it is evident that the Supreme Court did not base its Seventh Amendment holding on the grounds that there are no factual issues involved in claim construction. Rather, the Supreme Court analyzed the Seventh Amendment issues involved in claim construction in a manner in keeping with its general historical approach, and in keeping with its general analysis in other Seventh Amendment cases decided by the Court. The statements made by the Supreme Court regarding the importance of uniformity in the construction of any given patent should be taken as an "independent reason" supporting the *Markman* holding, as expressly articulated by the Court, rather than a Seventh Amendment rationale.

Further, the Federal Circuit should not act as its own lexicographer in patent cases in making ultimate determinations regarding the fact versus law divide. The ultimate issue is one of constitutional significance under the Seventh Amendment. It is not a question of patent law, even though the Supreme Court may be interested in considering patent law principles in reaching an ultimate determination concerning the fact versus law divide.

Finally, the principled and feasible choice for the appropriate standard of appellate review of patent claim construction is the clearly erroneous standard of Rule 52(a) for all factual components of claim construction. A de novo standard of review is not principled since it is inconsistent with the Seventh Amendment aspects of the Supreme Court's *Markman* decision, and it runs contrary to the repeated and consistent word choices made by the Court indicating that the Court considers claim construction to be a mixed issue of fact and law. Moreover, there is no principled basis for applying an independent judgment rule to the appellate review of patent claim construction.