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The Supreme Court, Stare Decisis, and the Role of Appellate Deference in Patent Claim Construction Appeals

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THE SUPREME COURT, STARE DECISIS, AND THE ROLE OF APPELLATE DEFERENCE IN PATENT CLAIM CONSTRUCTION APPEALS

DAVID KRINSKY*

The U.S. Court of Appeals for the Federal Circuit reviews de novo the rulings of district judges about patent claim construction. This state of affairs—surprising to many lawyers who are unfamiliar with patent law—is controversial because claim construction is one of the most important and vexing aspects of patent litigation, necessary to the vast majority of patent cases, and because it is probably responsible, at least in part, for the high reversal rate in patent cases. Commentary by both scholars and judges about the standard of review in patent cases has centered on whether the Federal Circuit should change it and review claim construction rulings with deference.

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.

This Article argues that deference should be granted to the factual findings and acquired technical expertise underlying district courts’ claim construction rulings in at least some limited cases—but it also explains why change must and should come from the Supreme Court.

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I. INTRODUCTION: *PHILLIPS* AND ITS DISSENTS

On July 12, 2005, the United States Court of Appeals for the Federal Circuit issued an en banc opinion in *Phillips v. AWH Corp.*,¹ a patent infringement lawsuit concerning modular wall panels intended for use in constructing prisons. At issue—besides a prison panel patent—was nothing less than the basic question of how district courts should construe patent claims, and in particular the relationship between a patent’s specification and its claims. In the words of the court, this “has been an issue in patent law decisions in this country for nearly two centuries.”² The *Phillips* en banc opinion will no doubt be a starting point for the practice of claim construction—and thus a centerpiece of patent litigation—for the foreseeable future.

But the *Phillips* opinion is perhaps more notable for what it did not resolve than what it did. In its order granting a rehearing en banc, the court had asked the parties and the patent bar to brief a series of seven questions.³ Although Question 7—using the number-

1. 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

2. *Id.* at 1312.

3. *Phillips v. AWH Corp.*, 376 F.3d 1382, 1382–83 (Fed. Cir. 2004) (per curiam) (granting rehearing en banc). The seven questions read as follows:

This court has determined to hear this case *en banc* in order to resolve issues concerning the construction of patent claims raised by the now-vacated panel majority and dissenting opinions. The parties are invited to submit additional briefs directed to these issues, with respect particularly to the following questions:

1. Is the public notice function of patent claims better served by referencing primarily to technical and general purpose dictionaries and similar sources to interpret a claim term or by looking primarily to the patentee’s use of the term in the specification? If both sources are to be consulted, in what order?

2. If dictionaries should serve as the primary source for claim interpretation, should the specification limit the full scope of claim language (as defined by the dictionaries) only when the patentee has acted as his own lexicographer or when the specification reflects a clear disclaimer of claim scope? If so, what language in the specification will satisfy those conditions? What use should be made of general as opposed to technical dictionaries? How does the concept of ordinary meaning apply if there are multiple dictionary definitions of the same term? If the dictionary provides multiple potentially applicable definitions for a term, is it

ing of the *Phillips* rehearing order—asked what deference the Federal Circuit can and should give to claim construction rulings by trial courts,⁴ the *Phillips* court, in its en banc opinion, simply “decided not to address that issue at this time.”⁵ This decision—and thus *Phillips*’s underlying premise that there even *can* exist a purely legal framework for construing patent claims—drew a scathing dissent by Judge Mayer, joined by Judge Newman.⁶

Since the Supreme Court’s decision in *Markman v. Westview Instruments, Inc.*⁷ and the Federal Circuit’s decisions in that case⁸ and in *Cybor Corp. v. FAS Technologies, Inc.*,⁹ claim construction has been considered to be a matter of pure law and has accordingly been reviewed de novo on appeal by the Federal Circuit, “including any allegedly

appropriate to look to the specification to determine what definition or definitions should apply?

3. If the primary source for claim construction should be the specification, what use should be made of dictionaries? Should the range of the ordinary meaning of claim language be limited to the scope of the invention disclosed in the specification, for example, when only a single embodiment is disclosed and no other indications of breadth are disclosed?

4. Instead of viewing the claim construction methodologies in the majority and dissent of the now-vacated panel decision as alternative, conflicting approaches, should the two approaches be treated as complementary methodologies such that there is a dual restriction on claim scope, and a patentee must satisfy both limiting methodologies in order to establish the claim coverage it seeks?

5. When, if ever, should claim language be narrowly construed for the sole purpose of avoiding invalidity under, *e.g.*, 35 U.S.C. §§ 102, 103 and 112?

6. What role should prosecution history and expert testimony by one of ordinary skill in the art play in determining the meaning of the disputed claim terms?

7. Consistent with the Supreme Court’s decision in *Markman v. Westview Instruments, Inc.*, and our *en banc* decision in *Cybor Corp. v. FAS Technologies, Inc.*, is it appropriate for this court to accord any deference to any aspect of trial court claim construction rulings? If so, on what aspects, in what circumstances, and to what extent?

Id. (citations omitted).

Like the Federal Circuit, this Article uses “claim construction” and “claim interpretation” interchangeably. See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 n.6 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996) (“The dissenting opinion draws a distinction between claim interpretation and claim construction based on the distinction made in contract law. We do not make the same distinction for, in our view, the terms mean one and the same thing in patent law.”).

4. *Phillips*, 376 F.3d at 1383.

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

6. *Id.* at 1330–35 (Mayer, J., dissenting).

7. 517 U.S. 370 (1996).

8. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

9. 138 F.3d 1448 (Fed. Cir. 1998) (en banc).

fact-based questions relating to claim construction.”¹⁰ This state of affairs has been controversial. Judge Mayer, for example, described “any attempt to fashion a coherent standard under this regime” as “pointless,” accused the court of “focus[ing] inappropriate power” in itself, and further attacked the court for “decid[ing] cases according to whatever mode or method results in the outcome we desire.”¹¹ In dissent from the *Phillips* rehearing order, then-Chief Judge Mayer wrote that “[n]early a decade of confusion has resulted from the fiction that claim construction is a matter of law, when it is obvious that it depends on underlying factual determinations . . . reviewable on appeal for clear error.”¹² In his view, the Federal Circuit should reconsider its holdings in *Markman* and *Cybor*, a possibility that the wording of Question 7 appeared to deliberately avoid.¹³ Several of the amicus briefs in *Phillips* urged a similar position, arguing that underlying factual determinations should be reviewed for clear error.¹⁴

As both the Federal Circuit and the Supreme Court have explained, however, there are compelling reasons to treat claim construction—at least in the ordinary case—as a matter of pure law. Patent claims delineate the scope of an invention from which the patentee has a government grant of the right to exclude others; as such, the public should be able to rely upon a consistent construction of patent claims based only upon the documents available in the public record.¹⁵ Other legal instruments are construed by courts as matters of law rather than fact, and it is reasonable that patents be treated

10. *Id.* at 1456.

11. *Phillips*, 415 F.3d at 1330 (Mayer, J., dissenting).

12. *Phillips v. AWH Corp.*, 376 F.3d 1382, 1384 (Fed. Cir. 2004) (Mayer, C.J., dissenting from order granting rehearing en banc).

13. *Id.* at 1383. Question 7 asked, if “[c]onsistent with the Supreme Court’s decision in *Markman* and our *en banc* decision in *Cybor*, is it appropriate . . . to accord any deference to any aspect of trial court claim construction rulings?” *Id.* (citations omitted). This suggests that the en banc Federal Circuit did not intend to consider overruling *Cybor*, though it was (and is) obviously empowered to do so. Likewise, although the Federal Circuit is not empowered to overrule the Supreme Court’s *Markman* decision, as an en banc court it can overrule its own *Markman* decision to the extent that doing so is consistent with binding Supreme Court precedent.

14. *See, e.g.*, Brief of Amicus Curiae Connecticut Intellectual Property Law Ass’n Regarding the Issue of Claim Construction at 10–11, *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc) (Nos. 03–1269, 03–1286), available at <http://patentlaw.typepad.com/patent/files/CS4555.pdf> (supporting the “clearly erroneous” standard for claim construction appeals).

15. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978–79 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

similarly.¹⁶ Finally, at least in principle, treatment as a matter of law may promote uniformity in how claims are construed.¹⁷ Unlike questions of fact, questions of law are generally entitled to stare decisis effect in addition to collateral estoppel.¹⁸ And unlike collateral estoppel, which can ordinarily bind only the parties to the action in which an issue is decided, stare decisis may preclude reconsideration of an issue that is asserted by a party who has never before litigated the question.¹⁹ Thus, if a particular claim construction is entitled to stare decisis effect, it will (at least in theory) apply in all future lawsuits in which it is at issue.²⁰

At the same time, even the *Markman* and *Cybor* courts acknowledged that judges, though definitionally skilled in the law, are not necessarily skilled in the art to which a patent pertains, and that extrinsic evidence—any evidence outside the public record of the patent document and its file wrapper, including expert testimony²¹—may help the court put itself in the position of a person of ordinary skill in the art.²²

16. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388 (1996) (“The construction of written instruments is one of those things that judges often do and are likely to do better than jurors unburdened by training in exegesis.”).

17. *Id.* at 390.

18. See generally *Nat’l Org. of Veterans’ Advocates, Inc. v. Sec’y of Veterans Affairs*, 260 F.3d 1365, 1373–74 (Fed. Cir. 2001) (noting that collateral estoppel may apply to questions of law, but will not apply to questions of law litigated anew in “substantially unrelated” actions).

19. See *id.*

20. See *id.* Whether a decision that is entitled to stare decisis effect will be binding on future courts that consider the same issue, or whether it will merely be persuasive, depends on the courts involved. See *id.* at 1373 (“[S]tare decisis is a doctrine that binds courts to follow their own earlier decisions or the decisions of a superior tribunal.”); see also *infra* note 129. Either way, a claim construction that is entitled to some form of stare decisis effect is more likely to be applied uniformly across multiple patent infringement suits than a claim construction that is litigated anew by each new defendant. In particular, if a claim construction is adopted by the Federal Circuit, that construction would be binding in district court infringement actions nationwide. See *Markman*, 517 U.S. at 390 (noting the uniformity conferred by the exclusive national appellate jurisdiction of the Federal Circuit).

21. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996) (“Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.”).

22. *Id.* at 981 (“[I]t is permissible, and often necessary, to receive expert evidence to ascertain the meaning of a technical or scientific term or term of art so that the court may be aided in understanding . . . what [the instruments] actually say.” (alterations in original) (quoting *U.S. Indus. Chems., Inc. v. Carbide & Carbon Chems. Corp.*, 315 U.S. 668, 678 (1942))); see also *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (discussing the effect of extrinsic evidence on the court).

Phillips was decided without addressing the question at all—correctly, as the claim construction at issue did not involve any findings based on extrinsic evidence or expert testimony.²³ Yet the question remains as important and challenging as ever.

In Part II, this Article argues that the Federal Circuit’s reasoning in *Markman* and *Cybor* is compelling, and that claim construction rulings should ordinarily be considered decisions of law and reviewed de novo. It also argues, however, that the Federal Circuit—despite its undoubted technical expertise²⁴—is not and cannot be skilled in every technical field. Thus, when trial judges have heard testimony intended to put them in the position of one skilled in the art, the Federal Circuit should grant deference to the decisions the trial judge makes about how particular technical claim terms are understood by practitioners of the art. In essence, it argues that then-Chief Judge Mayer’s dissenting comments in the *Phillips* rehearing order are correct, and that deference should be given to underlying trial court fact-finding—but only in the exceptional case where recourse to extrinsic testimony is necessary and appropriate.

This conclusion, however, must be squared with the Supreme Court’s decision in *Markman*. Part III of the Article questions whether this sort of deference is within the Federal Circuit’s power to grant, and concludes on the basis of *Markman* that it is not. In particular, for reasons that Part III explores, 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 deference to a trial court. The Article concludes that the Supreme Court should clarify or overrule *Markman* and hold that trial judges may make use of extrinsic evidence to help put them in the position of practitioners of ordinary skill in the art; that when they do so, their factual rulings are entitled to appellate deference; and that stare decisis is appropriate only as to legal matters that do not require particularized technical expertise, if then. Notably, as Part IV will argue in conclusion, the *Phillips* court was right not to tackle these questions: *Phillips* was not an appropriate case in which to decide them. But another case may soon arise that is a fitting candidate for consid-

23. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1324–28 (Fed. Cir. 2005) (en banc).

24. See, e.g., Robert D. Wallick & Neil R. Ellis, *The United States Court of Appeals for the Federal Circuit: At the Leading Edge of High Technology Issues*, 36 AM. U. L. REV. 801, 803 (1987) (“[T]he highly technical and complex nature of the many patent cases heard by the CAFC demonstrates . . . that the court is a technology-conscious legal body highly qualified to hear, assess, and decide technical patent appeals from both judicial and administrative decisions.”).

eration by an en banc Federal Circuit and—one hopes—a grant of certiorari.

II. THE DEFERENCE THAT IS NEEDED

A. *The Peculiar Position of Patents*

“[A] patent is both a technical and a legal document.”²⁵ With this pithy observation, Judge Michel summarized the fundamental difficulty with claim construction and, by extension, the fundamental difficulty with deciding how claim construction should be conducted and reviewed on appeal.²⁶ Patents are carefully drafted legal documents whose interpretation is based on over two hundred years of case law and on doctrines that are not always obvious even to nonpatent attorneys. For instance, even though the Federal Circuit has repeatedly counseled that claim language is entitled to a “heavy presumption in favor of [its] ordinary meaning,”²⁷ this is only true through the lens of counterintuitive patent law doctrines such as the doctrine of equivalents (which expands the set of infringing embodiments beyond the literal scope of the claims)²⁸ and means-plus-function claims (which, contrary to their literal readings, do not cover all “means for” performing the stated function, but instead cover only structures that are identical or equivalent to the ones that perform the stated function in the embodiments described by the patent’s specification, not any “means for” performing the stated function).²⁹ At the same time, patents are technical documents that often require consideration of concepts, conventions, and terms of art from abstruse scientific and engineering disciplines.³⁰ Understanding their meaning requires

25. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1309 (Fed. Cir. 1999).

26. *Id.*

27. *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999).

28. *See, e.g., Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950) (holding that the doctrine of equivalents is founded on the theory that “if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape” (quoting *Machine Co. v. Murphy*, 97 U.S. 120, 125 (1877))).

29. *See* 35 U.S.C. § 112, para. 6 (2000) (“An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.”).

30. *See, e.g., Pitney Bowes*, 182 F.3d at 1307 (discussing how the term “spot size” refers by convention in the digital printing art to the area in which “the intensity exceeds a fixed threshold”); *see also Fiers v. Revel*, 984 F.2d 1164, 1168 n.9 (Fed. Cir. 1993) (discussing a patent on a DNA sequence encoding fibroblast beta-interferon and quoting a party as describing one of the relevant technologies as “routine to those skilled in the art”).

consideration of what their terms mean to those of ordinary skill in the art, so expertise in patent law is not enough to construe them correctly.³¹

This dichotomy is a source of tension in how patent claims are interpreted and in how those constructions are reviewed on appeal. On the one hand, treating patents as legal documents suggests that they are best construed by judges skilled in patent law, using only the public record associated with each patent: the text of the patent documents themselves and their prosecution histories.³² This approach counsels in favor of *de novo* review, as questions of law are traditionally reviewed without deference.³³ Moreover, because Federal Circuit judges have particular expertise in patent law, they are generally better equipped than district court judges to apply patent law doctrines correctly.³⁴ The legal approach, broadly speaking, is what the Federal Circuit has generally taken. Claim construction is conducted by reference to the intrinsic evidence alone—the words of the claims themselves, the rest of the specification, and the prosecution history—unless, in light of that evidence, a claim term is still ambiguous.³⁵

31. See *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998) (“It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed.”).

32. The prosecution history of a patent forms “part of the public record and shed[s] light on the meaning of the claims.” *Phillips Petroleum Co. v. Huntsman Polymers Corp.*, 157 F.3d 866, 872 (Fed. Cir. 1998). Nonetheless, there is some debate about the extent to which the prosecution history should inform the construction of claims in a patent. See, e.g., John R. Thomas, *On Preparatory Texts and Proprietary Technologies: The Place of Prosecution Histories in Patent Claim Interpretation*, 47 UCLA L. REV. 183 (1999). Indeed, this is one of the questions that the Federal Circuit considered in *Phillips*. See *supra* note 3. Consideration of this debate is beyond the scope of this Article; the “legal document” approach to claim construction rests only upon an assumption that patents can be construed by reading the intrinsic evidence. What that intrinsic evidence comprises is not important, so long as it is publicly available.

33. See *Salve Regina Coll. v. Russell*, 499 U.S. 225, 231 (1991) (holding that “a court of appeals should review *de novo* a district court’s determinations of state law”).

34. Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 17–18 (2001). Moore points out, however, that Justice Jackson’s famous phrase, “We are not final because we are infallible, but we are infallible only because we are final,” *Brown v. Allen*, 344 U.S. 443, 540 (1953) (Jackson, J., concurring), applies in some respects to the Federal Circuit on matters of patent law. Moore, *supra*, at 17–18. The Federal Circuit is not formally final—the Supreme Court can review its decisions—but in practice the Federal Circuit is frequently left to craft patent law doctrines on its own. See Nicolas Oettinger, *In re Independent Service Organizations Antitrust Litigation*, 16 BERKELEY TECH. L.J. 323, 334–37 (2001) (arguing that even after taking into account the fact that the Federal Circuit’s exclusive jurisdiction largely eliminates circuit splits about issues of patent law, the Supreme Court has shown a willingness to let the Federal Circuit make sweeping changes in patent law).

35. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582, 1584 (Fed. Cir. 1996).

And, of course, patent claim construction is reviewed entirely *de novo*.³⁶

On the other hand, the legal approach ignores, or at least underplays, the reality that many patents pertain to technical subjects. The meaning of a patent claim term is “what one of ordinary skill in the art at the time of the invention would have understood the term to mean.”³⁷ The Federal Circuit is a court of extremely competent judges, with clerks skilled in a variety of technical disciplines,³⁸ but they are not and cannot be “of ordinary skill” in every art. No one can be skilled in every technical discipline he or she encounters, or even in more than a select few—scientific knowledge is too fine-grained and broad-ranging. From an institutional standpoint, an emphasis on the technical aspects of patents suggests that claim construction would ideally be conducted by one skilled in the art—a technical expert of some sort. Since that is not ordinarily practical, at least without altering the practice of handling patent infringement through suits in courts, judges must take steps, sometimes including taking testimony from expert witnesses who are skilled in the art, to put themselves in the position of one skilled in the art.³⁹ District courts give extended consideration to a particular set of technical issues while they take testimony—consideration which likely includes factual determinations, if only implicit ones, about technical terms and how they are used. They also make credibility judgments about the expert witnesses. Compared to a district court, the Federal Circuit is not well-equipped to review more than whatever textual record is presented to it. An approach to claim construction that puts more emphasis on the technical aspect would therefore likely counsel greater appellate deference, as it would recognize the importance of credibility judgments as well as the district courts’ expertise with fact-finding.⁴⁰ An appellate court

36. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc).

37. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 986 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

38. Moore, *supra* note 34, at 18.

39. To some extent, district courts *can* put technical decisions in the hands of technical experts by appointing special masters. FED. R. CIV. P. 53. If anything, this reinforces the point: it is another way in which district courts are better situated than the Federal Circuit to grapple with technical issues.

40. As the Supreme Court has noted, “[t]he trial judge’s major role is the determination of fact, and with experience in fulfilling that role comes expertise.” *Anderson v. City of Bessemer City*, 470 U.S. 564, 574 (1985). This is why factual findings by district courts are reviewed for clear error even when they do not involve credibility determinations. *Id.* at 574–75.

that emphasized the technical nature of patent documents would likely review claim interpretation only for clear error.⁴¹

B. *De Novo as a Default*

The previous Section noted that there are some good reasons to treat patents as legal documents whose construction is a matter of law. It also observed that patents are technical documents, and appellate judges who are experts in patent law but not “skilled in the art” are suboptimal decisionmakers about technical issues. How can the legal/technical dichotomy be resolved?

In some sense, the dichotomy is unresolvable. At least so long as patent infringement suits take their current form, decisions will always be made by judges who are not “of ordinary skill in the art.”⁴² Some balance can, and must, be struck, however. The policy considerations underlying the existing *de novo* framework are strong; indeed, in most cases, they are determinative. As this Section argues, however, in the exceptional case—where disputed claim terms are used in ways idiosyncratic to a particular discipline—the *Cybor* model of pure *de novo* review, even of underlying questions of fact, becomes inadequate. Because a trial court has expertise in making factual determinations, and because it can make credibility judgments about experts that it hears directly, it is better situated to put itself in the position of one skilled in the art, and the determinations it makes about what terms mean to those skilled in the art and about which of multiple meanings controls ought to be given deference.

A number of factors militate in favor of granting deference only in the unusual case. As described above,⁴³ the public has an interest in patents being objective documents with a fixed meaning discernible by reading the document alone. Although a knowledge of patent law is inevitably required, and the intended audience for a patent is

41. The precise standard of review is less important than the idea that some deference is due. I refer throughout this Article to “clear error” because it is the traditional standard of review for factual determinations made by a trial judge. *Id.* at 575; *see also infra* note 88 (listing contexts in which a standard of review other than clear error is applied to factual findings).

42. Some commentators have suggested changing the existing system, through legislative changes that grant the Patent and Trademark Office more ability to find facts, through an administrative opposition proceeding, and through such proposals as creating specialized patent courts at the trial level. *See, e.g.,* Arti K. Rai, *Engaging Facts and Policy: A Multi-Institutional Approach to Patent System Reform*, 103 COLUM. L. REV. 1035 (2003) (highlighting possibilities to close the gap between the judiciary and legislative policymakers). The merits of such proposals are beyond the scope of this Article; my focus is limited to possible judicial changes to the *Cybor* and *Markman* *de novo* review regime.

43. *See supra* Part II.A.

persons of ordinary skill in the art,⁴⁴ this interest is still best served any time the claim construction inquiry is limited to intrinsic evidence.⁴⁵ A trial judge has no particular advantage over an appellate judge in reviewing this intrinsic evidence, if that is as far as a claim construction inquiry goes; all the evidence is in documentary form and is directly available. Moreover, the public interest in knowing the scope of patent claims is also furthered by uniformity in how a given patent is construed, which in turn is enhanced by treating claim construction as a matter of binding legal precedent rather than a factual issue that must be reexamined anew when new parties litigate a patent for the first time.⁴⁶ For these reasons, the Federal Circuit has consistently held that when the meaning of a patent claim is clear from the intrinsic evidence, claims should be construed with respect to that intrinsic evidence, and resort to extrinsic evidence such as expert testimony is not just unnecessary, but it is improper.⁴⁷ An extension of this logic supports the conclusion—implicitly recognized by the *Phillips* court—that even if the specification is to be privileged over dictionaries, dictionaries should be privileged over other extrinsic evidence because

44. See *supra* note 31; see also *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 986 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996) (noting that disputed terms in claim construction are interpreted based on the objective knowledge of one of ordinary skill in the art).

45. Arguably, considering prosecution history to be “intrinsic evidence” undermines this goal because it is much less accessible than the patent document itself, even if it is obtainable and a matter of public record. Partly on this basis Professor Thomas has argued that use of prosecution history is misplaced in claim construction. See Thomas, *supra* note 32, at 200–04.

Even so, the availability of the prosecution history as public record is the traditional justification for using it to construe patent claims. See *Phillips Petroleum Co. v. Huntsman Polymers Corp.*, 157 F.3d 866, 872 (Fed. Cir. 1998). A sufficiently diligent member of the public could, in principle, consult the prosecution history before embarking on a potentially infringing activity. Likewise, the prosecution history is as easily available for Federal Circuit judges to review as for district judges.

46. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390–91 (1996) (giving stare decisis effect to issues of claim construction); cf. *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 331–33, 349–50 (1971) (holding that collateral estoppel may be asserted against a party to the original suit in which an issue is decided, but not against others). The benefit of uniformity also derives from the Federal Circuit’s national jurisdiction. *Markman*, 517 U.S. at 390.

Part III.B.2 will discuss in greater detail the linkage between stare decisis and de novo review. In brief, stare decisis is premised on the ideas that lower courts cannot bind higher courts, and that decisions about legal issues are entitled to precedential effect. See *Nat’l Org. of Veterans’ Advocates, Inc. v. Sec’y of Veterans Affairs*, 260 F.3d 1365, 1373–74 (Fed. Cir. 2001). If the decision of a lower court receives deference and is adopted by the Federal Circuit without a de novo review, the decision effectively has a precedential effect that outweighs its author’s place in the hierarchy of courts. See *infra* Part III.B.2.

47. *Vitronics Corp. v. Conception, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996).

dictionaries “ha[ve] the value of being an unbiased source ‘accessible to the public in advance of litigation.’”⁴⁸

Even where the intrinsic evidence does not reveal the meaning of patent claim terms, expert technical knowledge is often unnecessary when resolving ambiguities and defining claim terms. The reason for this is simple: the disputed claim terms, even for technical patents, are often not terms of art, but rather are ordinary English words given their everyday meanings.⁴⁹ When technical meanings are not implicated, there is no reason to treat construction of patent documents any differently from the construction of any other objective legal document, such as a statute. In other words, there *is* no separate technical conception of many disputed claim terms; in these cases, the legal conception of the patent document controls.

This understanding is likely part of what motivated the Federal Circuit’s pre-*Phillips* holdings that “[d]ictionaries are always available to the court to aid in the task of determining meanings that would have been attributed by those of skill in the relevant art to any disputed terms used by the inventor in the claims.”⁵⁰ In *Texas Digital Systems, Inc. v. Telegenix, Inc.*,⁵¹ the Federal Circuit emphasized the availability of dictionaries, encyclopedias, and treatises and specifically held that they are available at any time to both trial and appellate courts equally, whether or not offered into evidence by a party.⁵² As such, the court questioned the appropriateness of labeling such

48. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1322 (Fed. Cir. 2005) (en banc) (quoting *Vitronics*, 90 F.3d at 1585). Compare this statement to *Phillips*, 415 F.3d at 1318–19, which enumerates the many disadvantages of expert testimony.

Of course, dictionaries and expert testimony are hardly the only extrinsic evidence possible. Although the *Phillips* court did not recognize this fact, documentary evidence that is extrinsic to a patent but contemporaneous with it would seem likely to avoid many of the disadvantages of expert testimony. The weight that such evidence deserves will no doubt be explored in cases brought by prudent post-*Phillips* litigants. But to the extent that the application of such evidence requires an essentially factual inquiry into what an ordinary artisan would understand a patent to mean at the time it was written or issued, the use of such other extrinsic evidence should also be entitled to deferential review on appeal.

49. See, e.g., *Int’l Rectifier Corp. v. IXYS Corp.*, 361 F.3d 1363, 1369–70, 1373–74 (Fed. Cir. 2004) (construing, in a case about the manufacture of MOSFETs (a type of high-power transistor), the term “adjoining” as used in its ordinary sense of “touching or bounding at a point or a line”); see also Joseph Scott Miller & James A. Hilsenteger, *The Proven Key: Roles and Rules for Dictionaries at the Patent Office and the Courts*, 54 AM. U. L. REV. 829, 876–79 (2005) (criticizing *International Rectifier’s* use of dictionaries to construe common English claim terms).

50. *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed. Cir. 2002) (citing *Vitronics*, 90 F.3d at 1584 n.6).

51. 308 F.3d 1193 (Fed. Cir. 2002).

52. *Id.* at 1202–03.

sources as “evidence” at all, much less as “extrinsic evidence.”⁵³ Instead, the court treated dictionaries almost as it would treat a source of law, like a case, of which a court would always be permitted to take judicial notice.

In *Phillips*, the Federal Circuit retreated somewhat from its holding in *Texas Digital*.⁵⁴ Although it did not overrule *Texas Digital* outright, it stated that “the methodology it adopted placed too much reliance on extrinsic sources such as dictionaries, treatises, and encyclopedias and too little on intrinsic sources, in particular the specification and prosecution history.”⁵⁵ When construing patents, it stated, one should place the greatest weight on “how the patentee used the claim term in the claims, specification, and prosecution history, rather than starting with a broad [dictionary] definition and whittling it down.”⁵⁶ Notably, however, the *Phillips* court explicitly declined to preclude the use of dictionaries or to disavow its holding in *Vitronics Corp. v. Conceptronic, Inc.*,⁵⁷ that:

[J]udges are free to consult dictionaries and technical treatises “at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.”⁵⁸

Although both *Vitronics* and the *Texas Digital* line of cases have acknowledged the utility of general and technical dictionaries—the dictionaries cited in *Texas Digital* itself were two dictionaries of electronics⁵⁹—the terms that courts have most often looked to dictionaries to define have tended not to be technical ones. For instance, *Texas Digital* employed dictionaries to define “activate” and “display,”

53. *Id.* The *Texas Digital* court noted that

[a]s resources and references to inform and aid courts and judges in the understanding of technology and terminology, it is entirely proper for both trial and appellate judges to consult these materials at any stage of a litigation, regardless of whether they have been offered by a party in evidence or not. Thus, categorizing them as “extrinsic evidence” or even a “special form of extrinsic evidence” is misplaced and does not inform the analysis.

Id. at 1203.

54. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1320–24 (Fed. Cir. 2005) (en banc).

55. *Id.* at 1320.

56. *Id.* at 1321.

57. 90 F.3d 1576 (Fed. Cir. 1996).

58. *Phillips*, 415 F.3d at 1322–23 (quoting *Vitronics*, 90 F.3d at 1584 n.6).

59. *Texas Digital*, 308 F.3d at 1206 (citing MODERN DICTIONARY OF ELECTRONICS 20 (6th ed. 1984) (defining “activate”)), 1209 (citing ILLUSTRATED DICTIONARY OF ELECTRONICS 147 (3d ed. 1985) (defining “display”)).

neither of which had a meaning that diverged from the everyday one.⁶⁰ Appellate judges are just as qualified to read, interpret, and apply ordinary English dictionary definitions as are trial judges. Interpreting English text in light of dictionary definitions does not make use of a trial judge's expertise in fact-finding, and it does not require the consideration of evidence to which the trial judge has had more thorough and direct exposure.⁶¹ As Judge Linn pointed out in *Texas Digital*, dictionaries have historically been considered to be acceptable sources for judges to consult when construing other documents as a matter of law, including both statutes and contracts.⁶²

It is thus an exceptional case in which resort to truly extrinsic evidence, such as expert testimony, is necessary. This is consonant with the observation of the *Vitronics* court that intrinsic evidence alone is usually sufficient.⁶³ In these cases, claim construction reduces to a matter of law, and de novo review is therefore logical and appropriate.

As the Federal Circuit has observed, however, expert testimony is necessary sometimes. Claim terms may be ambiguous; it may be unclear which of several definitions apply; or claim terms may be used by those skilled in the art—particularly in rapidly evolving fields—in ways that are poorly reflected by published dictionaries and by the intrinsic evidence.⁶⁴ Indeed, the renewed emphasis in *Phillips* on considering the “ordinary meaning” of a claim term to be “its meaning to the ordinary artisan after reading the entire patent,” rather than “the meaning of the term in the abstract, out of its particular context,” renders it, perhaps, more likely that a court will have to resort to such evidence than under a pro-dictionary *Texas Digital* conception of the art of

60. *Id.*

61. There may be occasions in which use of a dictionary requires the resolution of some predicate factual question, such as whether a general dictionary or a technical treatise should control, or which of a number of definitions is more likely to be what a person skilled in the art might have meant. In these cases, there may be a reason to defer to trial court fact-findings even when the trial court has used a dictionary rather than heard testimony from an expert witness. However, it would not be the interpretation of a dictionary definition that would receive deference; rather, it would be the resolution of the predicate question.

62. *Id.* at 1203; *see also* *Small v. United States*, 544 U.S. 385, 397 n.1 (2005) (Thomas, J., dissenting) (citing three general-purpose dictionaries to define “court” for purposes of statutory interpretation).

63. *Vitronics*, 90 F.3d at 1583 (“In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, it is improper to rely on extrinsic evidence.”).

64. *See* *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1309 (Fed. Cir. 1999) (observing the necessity of extrinsic evidence when claim terms are ambiguous or terms of art).

claim construction—the court, after all, is not an “ordinary artisan.”⁶⁵ Faced with the not-uncommon situation of a patent specification that does not speak to a claim term and a proffered dictionary definition of that term, a court following *Texas Digital* might simply adopt the dictionary definition, but a court following *Phillips*—and mindful of *Phillips*’s cautionary notes about the importance of context—might need additional extrinsic evidence to determine whether a dictionary’s definition is really what an “ordinary artisan” would have meant.

One example of the difficulty of adopting the viewpoint of an “ordinary artisan” is the case of *Pitney Bowes, Inc. v. Hewlett-Packard Co.*⁶⁶ In *Pitney Bowes*, the Federal Circuit held that the district court had properly taken and considered expert testimony on the way that persons of ordinary skill in the art (there, the digital printing art) conventionally measured the size of a spot of light.⁶⁷ Although “size” would seem to be a straightforward and nontechnical term, light spots are fuzzy; the size of a spot can be measured in different ways. Of particular interest was whether the size of a spot varied with its intensity.⁶⁸ If a spot was defined by the area in which light intensity exceeded a certain percentage of the maximum, then varying the intensity would not alter the spot size, whereas if a spot was defined by the area in which light intensity exceeded a fixed threshold, varying the intensity would alter the size of the spot.⁶⁹ The district court took expert testimony on this question, and one expert testified that although the percentage-based definition of size better accorded with usage in optics and with common English, as a term of art in the digital printing field, spot size was usually measured with respect to a fixed light intensity: only where the light is strong enough is printer toner deposited.⁷⁰

Ultimately, the Federal Circuit in *Pitney Bowes* held that the question of how light spot sizes were measured in the art was irrelevant. On the basis of the written description, it held that the disputed use of “spots” did not refer to light spots at all, but rather to the “discharged area on the photoreceptor.”⁷¹ However, *Pitney Bowes*’s spots remain a good example of how expert testimony might be appropriately used during claim construction, not merely to inform the judge about the

65. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1321 (Fed. Cir. 2005) (en banc).

66. 182 F.3d 1298 (Fed. Cir. 1999).

67. *Id.* at 1306–09. The relevant claim language was “spots of different sizes.” *Id.* at 1302.

68. *Id.* at 1306–07.

69. *Id.*

70. *Id.*

71. *Id.* at 1313.

general state of the art,⁷² but to give an understanding of how specific terms are used and understood by those skilled in the art. The sizes of spots of light, not just spots of discharged photoreceptor material, were referred to in the *Pitney Bowes* patent—just not in the disputed claims—and the interpretation of the term remained relevant to collateral arguments about whether the claim construction excluded the preferred embodiment.⁷³ To define the size of a light spot, the district court had little choice but to rely on expert testimony and choose among conflicting experts with differing views on common usage in the digital printing art. Thus, contrary to the Supreme Court’s conclusory statement in *Markman*, defining “spot size” as to a light spot required a credibility determination that was not “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.”⁷⁴

72. In an unusual statement of “additional views” on *Pitney Bowes*, Judge Rader, with Judge Plager concurring, discussed the circumstances in which expert testimony is permissible:

The process of claim construction at the trial court level will often benefit from expert testimony which may (1) supply a proper technological context to understand the claims (words often have meaning only in context), (2) explain the meaning of claim terms as understood by one of skill in the art (the ultimate standard for claim meaning), and (3) help the trial court understand the patent process itself (complex prosecution histories—not to mention specifications—are not familiar to most trial courts).

Id. at 1314 (Rader, J., additional views) (citation omitted). Only the second of these directly constitutes construing the claims, and presumably corresponds to the “rare” situation in *Vitronics* in which expert testimony is permissible to construe claims that are ambiguous based on the intrinsic evidence.

73. *Id.* at 1309.

74. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389 (1996). Indeed, in another recent Federal Circuit opinion, the court remanded a case to the district court specifically so that it could take expert testimony to determine how one of ordinary skill in the art would construe a claim term:

Unfortunately, on the record before us, we are unable to say with certainty whether or not one of skill in the art would understand that a power supply is designed to provide a constant voltage to a circuit. Given the complex technology involved in this case, we think that this matter can only be resolved by further evidentiary hearings, including expert testimony, before the district court.

NeoMagic Corp. v. Trident Microsystems, Inc., 287 F.3d 1062, 1074 (Fed. Cir. 2002). As in *Pitney Bowes*, the court ultimately avoided the question that required expert testimony rather than resolve it as a subsidiary fact issue. See *NeoMagic Corp. v. Trident Microsystems, Inc.*, No. 98-699-KAJ, 2003 U.S. Dist. LEXIS 8054, at *44–46 (D. Del. May 9, 2003) (finding that the expert testimony was ultimately unhelpful, and that the use of “power supply” in the specification rendered the construction adequately clear), *aff’d*, 110 F. App’x 103 (Fed. Cir. 2004). Again, however, the potential utility of expert testimony in claim construction, and the concomitant need for credibility determinations, is apparent.

Inquiring of experts how terms are used in the art is a quintessentially factual inquiry, and may involve a credibility judgment that an appellate court is ill-equipped to review from a written record. Such judgments are ordinarily reviewed with deference, even when made by a judge rather than a jury.⁷⁵ Indeed, appellate deference to trial court fact-finding traditionally has not been limited to credibility determinations, in part because even where credibility is not at issue, trial judges are more experienced than appellate judges at fact-finding.⁷⁶ The appellate court, of course, may reverse such findings when indeed they appear to be clearly erroneous based on the transcripts available to the appellate court or when the trial judge has misapplied the law—such as in cases where, under *Vitronics*, resorting to expert testimony to construe claims is erroneous to begin with.

Moreover, trial judges have procedural advantages over appellate judges when it comes to understanding extrinsic evidence and evaluating terminology from the standpoint of a person of ordinary skill in an art. Trial judges can schedule multiple hearings, of arbitrary length, on specific issues about which they are having difficulty; they can improve their own understanding by interactively questioning expert witnesses themselves; they can more easily examine physical evidence, such as mechanical devices; and they can adopt flexible techniques for improving the accuracy of their rulings by, for instance, circulating draft claim constructions before *Markman* hearings.⁷⁷ To be sure, all of these techniques establish a record from which an appellate court could reason independently, but there is little reason to privilege an appellate court's efforts to adopt the stand-

75. *Anderson v. City of Bessemer City*, 470 U.S. 564, 575 (1985).

76. *Id.* at 574–75. The application of appellate deference to a trial court's efforts to determine what a term means to a person of ordinary skill in the art, then, is not restricted to cases in which a court must consider the demeanor of dueling expert witnesses, a set of cases which, one hopes, are rare. See *supra* note 61. It is properly applied to any case in which a trial court must look to extrinsic evidence outside the four corners of the patent (and prosecution history).

Of course, in the case of the Federal Circuit, one might question whether most Federal Circuit judges' greater experience with technical topics and with patents more generally outweighs the greater experience of a district judge with fact-finding. It probably does not—the concern here is not with patents or patent law, but rather with understanding a discipline other than law, as best one can, through the eyes of someone who is skilled in that other discipline. The necessity and difficulty of doing this is not unique to patent law; consider, for example, determinations as to whether an individual has behaved reasonably by the standards of his profession, as might arise in a medical malpractice context.

77. For an example of a district judge who has experimented with this latter technique, apparently with positive results, see *Maytag Corp. v. Electrolux Home Products, Inc.*, 411 F. Supp. 2d 1008, 1015–16 (N.D. Iowa 2006).

point of a person of ordinary skill in the art over a trial court's: the issue is not a matter of legal expertise.

Relatedly, granting clear error deference to subsidiary questions of fact has the advantage that it solidifies trial rulings upon which the parties have spent considerable resources. One major argument for clear error review of fact-finding, even where the fact-finding depends on documentary evidence that is equally accessible to an appellate court, is that duplication of fact-finding efforts by an appellate court squanders resources without improving accuracy.⁷⁸ The Federal Circuit has been widely criticized for the frequency with which it reverses district court claim constructions after an expensive trial.⁷⁹ Because subsidiary questions of fact would be dispositive only in a minority of cases, reviewing them for clear error would probably not significantly improve the overall reversal rate. But it would probably improve the reversal rate—without damaging accuracy—in cases involving highly technical patents, which are among the most complicated and expensive of cases.⁸⁰ It would also grant deference to those *Markman* proceedings that are most expensive—a change that would prove particularly valuable if one of the various proposals for more interlocutory appeals of claim construction were followed and claim constructions were made appealable more often before a full trial.⁸¹ Thus, even if it only applies to a small subset of cases, appellate deference to subsidiary questions of fact during claim construction might well provide a nontrivial overall increase in judicial efficiency.

The sort of “mixed inquiry” in which clear error deference is granted to factual findings that form only a small portion of a broader question of law sounds convoluted, but it is actually quite commonplace. As Judge Mayer observed in his opinion in *Markman*, even where documents (such as contracts) are generally construed as mat-

78. *Anderson*, 470 U.S. at 574–75; see also FED. R. CIV. P. 52(a) advisory committee's note to 1985 amendment (commenting on the public's interest in trial courts being the fact-finders).

79. Moore, *supra* note 34, at 2–3; Rai, *supra* note 42, at 1058; see also Christian A. Chu, *Empirical Analysis of the Federal Circuit's Claim Construction Trends*, 16 BERKELEY TECH. L.J. 1075, 1104 (2001) (stating that the Federal Circuit's claim construction reversal rate is 44%); 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) (finding a reversal rate of 41.5% in patent cases decided in 2001).

80. See Rai, *supra* note 42, at 1066 (noting that patent infringement suits are a particularly expensive mechanism for mediating disputes about complex technology). Of course, not all high-technology cases require resolution of subsidiary questions of fact, see *supra* note 49 and accompanying text, but this is not necessary for the reversal rate to improve.

81. See Craig Allen Nard, *Process Considerations in the Age of Markman and Mantras*, 2001 U. ILL. L. REV. 355, 378 (proposing that a losing party be allowed to appeal a *Markman* order as a matter of right).

ters of law and their constructions are reviewed de novo, their constructions have long been considered to turn on subsidiary questions of fact where terms are “obscure and indeterminate”⁸² or “contain technical words, or terms of art.”⁸³ Indeed, contract interpretation hinges on subsidiary factual determinations whenever a contract is held to be ambiguous; then and only then is extrinsic evidence as to the intent of the parties admissible, and then and only then are findings about the interpretation of the contract reviewed for clear error by appellate courts.⁸⁴ There are good reasons not to treat patents the same way—unlike contracts, patents are construed based on “what a person of ordinary skill in the art would understand claim terms to mean,”⁸⁵ not on the drafters’ intentions, because patents bind the general public rather than just private parties. The point here, rather, is that there are other examples of “mixed inquiries” on appellate review. Indeed, even among patent law doctrines, several issues are considered matters of law and reviewed de novo but nonetheless depend on underlying factual questions that are reviewed under the clearly erroneous standard: the public use bar,⁸⁶ the on sale bar,⁸⁷ and obviousness.⁸⁸

82. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 997 (Fed. Cir. 1995) (en banc) (Mayer, J., concurring in the judgment) (quoting *Brown & Co. v. M'Gran*, 39 U.S. (14 Pet.) 479, 493 (1840)), *aff'd*, 517 U.S. 370 (1996).

83. *Id.* (quoting *Goddard v. Foster*, 84 U.S. (17 Wall.) 123, 142 (1872)).

84. *See, e.g.*, *Thatcher v. Kohl's Dep't Stores, Inc.*, 397 F.3d 1370, 1374 (Fed. Cir. 2005); *see also Sy-Lene of Wash., Inc. v. Starwood Urban Retail II, LLC*, 829 A.2d 540, 546 (Md. 2003) (a state court example describing this as the “objective” theory of contract interpretation).

85. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1319 (Fed. Cir. 2005) (en banc).

86. *Manville Sales Corp. v. Paramount Sys., Inc.*, 917 F.2d 544, 549 (Fed. Cir. 1990).

87. *Sonoscan, Inc. v. Sonotek, Inc.*, 936 F.2d 1261, 1263 (Fed. Cir. 1991).

88. *Smithkline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 886 (Fed. Cir. 1988). Note that in some cases—where the factual determinations are made by a jury or by certain tribunals such as the International Trade Commission—the standard of review is not clear error. *See, e.g.*, *MercExchange, L.L.C. v. eBay, Inc.*, 401 F.3d 1323, 1331 (Fed. Cir. 2005) (standard of review for jury findings is whether “a reasonable jury could infer” them from the evidence), *vacated on other grounds*, 126 S. Ct. 1837 (2006); *Comm. for Fairly Traded Venezuelan Cement v. United States*, 372 F.3d 1284, 1288 (Fed. Cir. 2004) (standard of review for ITC determinations is whether the determinations are supported by substantial evidence). The distinctions among deferential standards of review are not important to the argument here.

Also, the fact that the proposed approach to deferential review has been used in other contexts does not necessarily mean that it works well or is without controversy in those other contexts. *See generally* 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, 769–70 (2004) (discussing evolution and merits of the “mixed standard of review” for obviousness).

Thus, reviewing subsidiary factual issues in claim construction deferentially would be neither unusual nor impractical. The most sensible approach to claim construction is to treat *de novo* review as a sort of default rule, applied in the majority of cases in which its benefits—including the ability of the skilled public to construe patent claims simply by reading the patent⁸⁹ and uniform interpretation of those claims by courts—are attainable without great cost. The Federal Circuit would then defer to factual findings only in the exceptional cases in which they were necessary for a district court to understand how a person of ordinary skill in the art would have understood the claims of a patent. In these latter cases, the costs of *de novo* review—including inaccurate determination of technical issues and wasted trial-level judicial and litigant resources—outweigh the benefits.

III. THE DEFERENCE THAT PRECEDENT REQUIRES AND HOW TO FIX IT

Assuming that some deference should, for policy reasons, be given to “underlying factual determinations”⁹⁰ in at least the exceptional claim construction appeal, there remains the question of whether the Federal Circuit is free to grant such deference by ruling *en banc* in an appropriate case, or whether such deference is incompatible with the Supreme Court’s decision in *Markman*.⁹¹ *Phillips* Question 7 directed parties to brief the issue of whether a grant of such deference is compatible with *Markman* and with *Cybor*.⁹² Some parties briefed the question as though there was no obstacle;⁹³ one suggested that such deference was compatible not only with *Markman*

89. The skilled public would have to be able to determine whether a patent can be construed on its face, or whether underlying factual findings are necessary. The benefit of drawing the line where *Vitronics* did is that if a claim term is unambiguous from the intrinsic evidence, potential infringers can rely on the unambiguous construction. If claim terms are ambiguous, then even with the present system of *de novo* review and *stare decisis*, patentees must wait for a patent to be construed in court at least once, or incur high litigation costs themselves.

90. *Phillips v. AWH Corp.*, 376 F.3d 1382, 1384 (Fed. Cir. 2004) (Mayer, C.J., dissenting from order granting rehearing *en banc*).

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

92. “Consistent with the Supreme Court’s decision in *Markman v. Westview Instruments, Inc.*, and our *en banc* decision in *Cybor Corp. v. FAS Technologies, Inc.*, is it appropriate for this court to accord any deference to any aspect of trial court claim construction rulings? If so, on what aspects, in what circumstances, and to what extent?” *Phillips*, 376 F.3d at 1383 (citations omitted).

93. See, e.g., Brief of Amicus Curiae Connecticut Intellectual Property Law Ass’n, *supra* note 14, at 10–11.

but also, possibly, with *Cybor*,⁹⁴ and another argued that *Cybor* is sufficiently recent that stare decisis should counsel against overruling it, but that *Cybor* precluded deferential appellate review.⁹⁵ In all these cases, however, the wording of the Federal Circuit's question—and the consequent briefing of the parties—assumed that *Cybor* would remain good law. A broader question—and perhaps a better question—is whether even overruling *Cybor* is sufficient, or whether overruling or at least clarifying *Markman* is necessary at the level of the Supreme Court.

This Part considers these issues in turn. First, Section A briefly argues that, contrary to the statements of a few Federal Circuit judges, *Cybor* is incompatible with any grant of deference to trial court rulings. Section B then argues that two different, interrelated aspects of the Supreme Court's decision in *Markman* compel de novo review of patent claim constructions on appeal: first, *Markman*'s admittedly ambiguous categorization of claim construction as a matter of law, and second, *Markman*'s statement that stare decisis ought to apply to claim interpretation. Lastly, Section C argues that *Markman*'s stare decisis holding makes little sense and that the two aspects of *Markman* should be clarified or overruled by the Supreme Court. It further argues that although the arguments for treating claim construction as a matter of law in the ordinary case are compelling, efforts by a judge to determine what terminology means within a particular art on the basis of extrinsic evidence should be granted deference, as explained above in Part II.

A. *What Cybor Compels*

Cybor held explicitly that “claim construction is purely a matter of law” and that the Federal Circuit “reviews the district court's claim construction *de novo* on appeal.”⁹⁶ It further held that “[n]othing in the . . . [*Markman*] opinion supports the view that the Court endorsed

94. See Brief for Amicus Curiae Sughrue Mion, PLLC at 16–19, *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc) (Nos. 03-1269, 03-1286), available at http://patentlaw.typepad.com/patent/files/sughrue_mion_pllc.pdf. The Sughrue Mion brief is a bit ambiguous as to its position; it characterizes various concurrences and dissents as having “expressed doubt as to the reasoning of *Cybor*,” but most of the statements it cites appear to be attempts to reconcile *Cybor* with some deference.

95. See Brief for Amicus Curiae The Ass'n of the Bar of the City of New York in Support of Neither Party at 16–18, *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc) (Nos. 03-1269, 03-1286), available at http://patentlaw.typepad.com/patent/files/new_york_city_association_of_the_bar.pdf.

96. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc) (citing *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979, 981 (Fed. Cir. 1995) (en banc)).

[the position] that claim construction may involve subsidiary or underlying questions of fact. . . . [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.”⁹⁷

Nonetheless, some Federal Circuit concurrences have suggested that *Cybor* does permit some implicit deference, even if not overtly recognized as such.⁹⁸ Judge Bryson emphasized in his *Cybor* concurrence that “the rule that claim construction is an issue of law does not mean that [the Federal Circuit] intend[s] to disregard the work done by district courts in claim construction or that [it] will give no weight to a district court’s conclusion as to claim construction.”⁹⁹ Judge Bryson went on to cite several examples of situations in which appellate courts, while ruling *de novo* on lower-court decisions of law, nonetheless granted some implicit deference: the Supreme Court deferring to regional circuits on issues of state law in states within the circuit; the Federal Circuit deferring to the Board of Contract Appeals on issues of contract interpretation; and the Supreme Court leaving patent questions to the Federal Circuit.¹⁰⁰ Judge Plager articulated a similar belief, arguing that even under a *de novo* standard of review, the trial judge’s rulings will “carry weight.”¹⁰¹ And in *Phillips*, Judge Lourie noted that “even though claim construction is a question of law, reviewable . . . 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.”¹⁰²

Despite these generalized statements, however, the Federal Circuit has not generally granted any deference to subsidiary findings, implicitly or explicitly. Notably, all of these observations about the possibility that some deference can be applied even under *Cybor* have come in concurrence or dissent; the Federal Circuit has never recognized the possibility of deference under *Cybor* in a panel opinion. The

97. *Id.* at 1455–56.

98. See generally Brief for Amicus Curiae Sughrue Mion, *supra* note 94, at 17–18.

99. 138 F.3d at 1463 (Bryson, J., concurring).

100. *Id.*; cf. *Salve Regina Coll. v. Russell*, 499 U.S. 225, 232 (1991) (holding that although courts of appeals review *de novo* district courts’ state law determinations, that *de novo* review “necessarily entails a careful consideration of the district court’s legal analysis, and an efficient and sensitive appellate court at least will naturally consider this analysis in undertaking its review”).

101. *Cybor*, 138 F.3d at 1462 (Plager, J., concurring).

102. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 (Fed. Cir. 2005) (en banc) (Lourie, J., concurring in part and dissenting in part).

high reversal rate in patent cases also strongly suggests that the Federal Circuit does not, in practice, “lean towards affirmance.”¹⁰³

Regardless, even if it were to be adopted by the court, such a vague approach is an incomplete solution. As discussed above in Part II, what is needed is not an increased hesitation to reverse district courts—or at least, not just that—but rather a framework that permits the benefits of fully independent de novo review in the common case and the benefits of deferential review when the technical aspects of a patent trump its legal aspects. Yet *Cybor* permits nothing of the sort; it explicitly dismissed a suggestion that “allegedly fact-based questions” be treated any differently from the rest of the claim construction analysis.¹⁰⁴ Thus, for the Federal Circuit to grant district courts the greater deference that Part II advocated, *Cybor* must be overruled.¹⁰⁵ *Cybor* resolved the question of deference in terms too explicit to ignore.

Two concluding notes on *Cybor* bear mention. First, as suggested in the New York City Bar Association’s amicus brief in *Phillips*,¹⁰⁶ there are prudential reasons why overruling *Cybor* at the Federal Circuit level is less than desirable. *Cybor* may have been incorrect, at least in its extreme rejection of any possibility of formalized deference, but circumstances have not changed in the few years since it was decided that would ordinarily warrant a departure from the principle of stare decisis.¹⁰⁷ On the other hand, and second, *Cybor*’s statement that claim construction is to be reviewed de novo is arguably dictum. The standard of review was not necessary to its outcome: Judges Mayer and Newman voted in favor of *Cybor*’s ultimate judgment of affirmance despite disagreeing with the majority that de novo review should apply.¹⁰⁸ As such, the case may have been a poor vehicle for deciding the core question of the appropriate standard of review for the Fed-

103. See *supra* note 79.

104. 138 F.3d at 1455–56.

105. Like all decisions of the Federal Circuit, *Cybor* may be overruled by the Federal Circuit sitting en banc. See *George E. Warren Corp. v. United States*, 341 F.3d 1348, 1351–52 (Fed. Cir. 2003); see also *Panel Discussion on Intra-Circuit Conflicts*, 11 FED. CIR. B.J. 623, 648 (2002) (quoting Judge Michel as saying “the later en banc always trumps the earlier en banc”).

106. Brief for Amicus Curiae The Ass’n of the Bar of the City of New York, *supra* note 95, at 16–17.

107. See *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*, 383 F.3d 1337, 1343–44 (Fed. Cir. 2004) (en banc) (stating that although “judicial departure from stare decisis always requires ‘special justification,’ the ‘conceptual underpinnings’ of th[e] precedent [in the case at hand] ha[d] significantly diminished in force,” such that the failure to produce exculpatory opinion letters no longer warranted the “adverse inference that an opinion was or would have been unfavorable” (citations omitted)).

108. 138 F.3d at 1463–64 (Mayer, C.J., concurring in the judgment).

eral Circuit, but this fact makes overruling it correspondingly easier, if overruling is formally necessary at all. Either way, however, as Section B will argue, *Markman* likely needs overruling or clarification by the Supreme Court, and because *Cybor*'s holding has never been decided at that level, the prudential concerns do not apply to a Supreme Court decision that compels *Cybor* to be modified.

B. What *Markman* Compels

Markman is the only case in which the Supreme Court has recently confronted the categorization of claim construction as a matter of law or fact, and thus the only relevant source of binding authority in the en banc Federal Circuit on the question of deference. Importantly, however, *Markman* avoided all discussion of deference and, indeed, at times appeared to eschew a clear *Cybor*-like holding that claim construction is a matter of pure law.¹⁰⁹ At issue in *Markman* was whether the Seventh Amendment guarantee of the right to a jury trial in civil cases¹¹⁰ mandates that juries determine patent claim interpretations, or whether claim interpretation can and should be left for the judge.¹¹¹ But in determining that it could and should be a matter for the judge, the Court outlined a series of policy arguments regarding institutional competence and the stare decisis effect of claims that leave no room for appellate deference to trial court claim construction rulings.

109. See, e.g., *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 378 (1996) (“We have also spoken of the line as one between issues of fact and law. . . . But the sounder course . . . is to classify a mongrel practice (like construing a term of art following receipt of evidence) by using the historical method . . .”). Justice Souter, the author of *Markman*, appears to have gone to some lengths to restrict the Court’s statement to the question of whether claim construction is an issue for the judge or for the jury and to avoid making clear statements categorizing claim construction as a matter of law. See, e.g., *id.* at 372 (“The question here is whether the interpretation of a so-called patent claim . . . is a matter of law reserved entirely for the court We hold that the construction of a patent, including terms of art within its claim, is exclusively within the province of the court.”).

110. U.S. CONST. amend. VII (“In 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 the common law.”).

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

1. *Claim Construction as a Matter of Law*

In attempting to justify deference, Federal Circuit judges¹¹² and commentators¹¹³ have both cited Justice Souter's statements in *Markman* that claim interpretation is a "mongrel practice" that "falls somewhere between a pristine legal standard and a simple historical fact."¹¹⁴ However, as the Federal Circuit majority in *Cybor* pointed out, even though the Supreme Court in *Markman* acknowledged that claim interpretation may have factual elements in reality, the Court consciously dismissed them when determining how claim interpretation should be treated under the law.¹¹⁵ Justice Souter's analysis was "functional" in character and for policy reasons assigned claim construction as a legal question for judges,¹¹⁶ but it did assign them to the category of "law" rather than "fact":

"[T]he 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." So it turns out here, for judges, not juries, are the better suited to find the acquired meaning of patent terms.

The construction of written instruments is one of those things that judges often do and are likely to do better than jurors¹¹⁷

The Supreme Court went on to state that any "credibility determinations"—the archetypal factual determination¹¹⁸—"will be subsumed within the necessarily sophisticated analysis of the whole document."¹¹⁹ Justice Souter might have intended to allocate claim construction to judges while retaining it as a question of fact entitled to clear error review; after all, judges can engage in fact-finding without

112. See *Cybor*, 138 F.3d at 1473 (Rader, J., dissenting from the pronouncements on claim interpretation in the en banc opinion, concurring in the judgment, and joining part IV of the en banc opinion) (citing *Markman's* "mongrel practice" language).

113. See, e.g., Rai, *supra* note 42, at 1047–48 (citing *Markman's* "mongrel practice" language).

114. *Markman*, 517 U.S. at 378, 388.

115. *Cybor*, 138 F.3d at 1455 ("[T]he Supreme Court was addressing under which category, fact or law, claim construction should fall and not whether it should be classified as having two components, fact and law.").

116. *Markman*, 517 U.S. at 388.

117. *Id.* (quoting *Miller v. Fenton*, 474 U.S. 104, 114 (1985)).

118. See *Anderson v. City of Bessemer City*, 470 U.S. 564, 574–75 (1985) (holding that all factual determinations, not just credibility determinations, are reviewed for clear error, but noting the long history of restricting clear error review to credibility determinations and maintaining especial deference where credibility is concerned).

119. *Markman*, 517 U.S. at 389.

juries.¹²⁰ However, the language of the opinion does not support this view. Rather, claim construction was given to judges as an interpretive issue uniquely within their competence as legal experts “train[ed] in exegesis,”¹²¹ and the Court proceeded to give reasons why it “treat[ed] interpretive issues as purely legal.”¹²² Under Supreme Court precedent, legal issues, when defined as such, are reviewed by appellate courts *de novo*.¹²³

2. *Estoppel Versus Stare Decisis*

Another aspect of *Markman* bolsters the conclusion that *Markman* necessarily implies *de novo* review: its holding that claim interpretations have *stare decisis* effect.¹²⁴ The *Markman* Court highlighted the importance of uniformity in claim construction, observing that for the patentee, for other possible inventors, and for potential infringers alike, “the limits of a patent must be known.”¹²⁵ To this end, it argued that treating claim construction as purely legal would enable an adjudicated claim construction to be considered as legal precedent.¹²⁶ The Court specifically distinguished issue preclusion, in which the determination of issues—including claim constructions—adjudicated in

120. See, e.g., FED. R. CIV. P. 52(a) (“The trial judge shall explicitly state findings of fact and conclusions of law upon which the judge bases the verdict. Findings of fact will not be disturbed on appeal unless clearly erroneous.”); *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 123 (“In applying the clearly erroneous standard to the findings of a district court sitting without a jury, appellate courts must constantly have in mind that their function is not to decide factual issues *de novo*.”).

121. *Markman*, 517 U.S. at 388.

122. *Id.* at 391.

123. *Salve Regina Coll. v. Russell*, 499 U.S. 225, 231 (1991) (“Independent appellate review of legal issues best serves the dual goals of doctrinal coherence and economy of judicial administration.”).

124. *Markman*, 517 U.S. at 391. Strictly speaking, Justice Souter’s opinion discussed “application of *stare decisis* on those questions not yet subject to interjurisdictional uniformity under the authority of the single appeals court.” *Id.* This might imply that by the term “*stare decisis*,” he meant the persuasive effect of one district court’s claim construction on another rather than the binding effect of Federal Circuit claim constructions on other courts. Whatever Justice Souter meant by “*stare decisis*,” however, it is clear that he intended claim constructions ratified by the Federal Circuit to have a binding effect nationwide. See, e.g., *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998) (citing *Markman*, the court stated, “we recognize the national *stare decisis* effect that [Federal Circuit] decisions on claim construction have”).

125. *Markman*, 517 U.S. at 390.

126. *Id.* at 391; see also *Abbott Labs. v. Baxter Pharm. Prods., Inc.*, No. 01 C 1867, 2004 U.S. Dist. LEXIS 22218, at *5 (N.D. Ill. Nov. 2, 2004) (“The Supreme Court has stressed the need for this ‘intra-jurisdictional certainty’ by making claim construction a legal issue that in turn imposes the application of *stare decisis* on patent interpretation, making the Federal Circuit’s claim construction of the ‘176 patent legal precedent in this case.”).

a previous lawsuit would be considered binding upon parties to that suit;¹²⁷ in contrast, *stare decisis* could be asserted by any party.¹²⁸

Although the exact contours of *Markman* *stare decisis* are unclear, it appears that the Court intended patent claim constructions by the Federal Circuit to be binding on district courts, even in other lawsuits.¹²⁹ It would be peculiar indeed for a determination made by a district court, then affirmed by the Federal Circuit under a deferential standard of review, to be given the effect of binding circuit precedent. Indeed, a deferential standard of review would undermine any claim that a claim construction was binding on future cases.

To see why this is so, consider what it means for a ruling to be held “not clearly erroneous.” Formally, when a judgment is affirmed as “not clearly erroneous,” that does not imply that the affirming court agrees with every aspect of the judgment or would have come to the same conclusion as the district court.¹³⁰ Rather, it implies only that the judgment of the district court is not so far wrong—literally, not so clearly erroneous—that it cannot be allowed to stand.¹³¹ Another trial court might confront exactly the same patent claims, yet come to a different conclusion about their construction, either because it has heard different evidence about a dispositive underlying factual issue or because it has made different credibility determinations about the expert testimony on that issue. Two rulings can simultaneously be “not clearly erroneous” even if they conflict with each other, and the fact that a particular claim construction has been up-

127. See *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 317, 331–33, 349–50 (1971).

128. See *Markman*, 517 U.S. at 391.

129. See *Nat'l Org. of Veterans' Advocates, Inc. v. Sec'y of Veterans Affairs*, 260 F.3d 1365, 1373 (Fed. Cir. 2001) (“[S]tare decisis is a doctrine that binds courts to follow their own earlier decisions or the decisions of a superior tribunal.”). At least some district courts appear to conclude from this principle that Federal Circuit claim constructions are binding. See, e.g., *Wang Labs., Inc. v. Oki Elec. Indus. Co.*, 15 F. Supp. 2d 166, 175 (D. Mass. 1998) (holding, in light of *Markman* and the general principle that Federal Circuit law is binding on district courts as to patent law, that the Federal Circuit’s construction of two patents was binding on the trial court in a later suit concerning those patents); *Texas Instruments, Inc. v. Linear Techs. Corp.*, 182 F. Supp. 2d 580, 589 (E.D. Tex. 2002) (concluding that the court was not bound by the claim interpretation of a sister district court, but implying that this reasoning only applied because the two were coordinate courts and one was not ordinarily bound by decisions of the other).

130. See *In re McLinn*, 739 F.2d 1395, 1402 & n.3 (9th Cir. 1984) (en banc) (observing this logical conclusion and stating that holdings that are based on clear-error deference to a district court are “not really holdings by appellate panels Instead, they are holdings that the district judges’ [decision] is not clear error”).

131. *Id.*

held does not mean that another judge is bound to arrive at the same one if the standard of review for the first ruling was deferential.

Furthermore, for *stare decisis* to comport with due process, it must be restricted to questions of law that do not depend on the particular evidence presented. Due process requires that parties to a lawsuit have an opportunity to have their claims heard;¹³² when *stare decisis* applies a binding judicial decision to parties who did not originally litigate that decision, these due process protections would seem to be violated,¹³³ as they would be if claim or issue preclusion were applied against a nonparty to the original action.¹³⁴ The way out of this dilemma is twofold. First, *stare decisis* is typically seen as binding courts rather than parties; parties remain free to challenge binding precedent in a higher court.¹³⁵ But this rationale is only effective as to matters that the higher court is free to examine independently. If the ruling with *stare decisis* effect were based on clearly erroneous review of an evidentiary finding, a party challenging that ruling through a later appellate proceeding would lack the opportunity to be heard that the original parties had, and the reviewing court, like the appellate court that issued the first affirmance, would be constrained in its capacity for review. Second, and relatedly, *stare decisis* is seen as acceptable because judicial rulings on questions of law are within the discretion of the court to pronounce, they are a form of positive law-making, and they are—in principle, at least—based on legal principles that will not change in light of new evidence.¹³⁶ This rationale, too, depends on the binding decision being a matter of pure law.

Thus, if the Supreme Court in *Markman* is serious in its holding that claim constructions are entitled to *stare decisis* effect—and it appears to be so—then that holding implies that claim construction is indeed a matter of pure law, reviewable *de novo* by appellate courts. It follows also that if, as Part II of this Article argued above, subsidiary findings of fact are an important part of some claim construction rulings and should be reviewed deferentially, *Markman* must be clarified or overruled. The next Section will argue that the Supreme Court can

132. *E.g.*, *Richards v. Jefferson County*, 517 U.S. 793, 797 & n.4 (1996).

133. Amy Coney Barrett, *Stare Decisis and Due Process*, 74 U. COLO. L. REV. 1011, 1026–28 (2003); *see also* *Nw. Forest Res. Council v. Dombeck*, 107 F.3d 897, 898 (D.C. Cir. 1997) (holding that use of *stare decisis* to treat a district court decision in another district as binding violates due process).

134. *See* *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 331–33, 349–50 (1971).

135. *Nat'l Org. of Veterans' Advocates, Inc. v. Sec'y of Veterans Affairs*, 260 F.3d 1365, 1373–74 (Fed. Cir. 2001).

136. Barrett, *supra* note 133, at 1047–60.

build upon *Markman* without overruling it entirely, so as to maintain its goal of uniformity while permitting deference in appropriate cases.

C. *How To Fix Markman*

Markman's holding that stare decisis applies to claim construction and its statement that claim construction is a matter of law appear to stand in the way of a sensible approach to claim construction as a "mixed" inquiry that rightly treats patents as both the legal and the technical documents that they are. There are several reasons why there is nevertheless no need for a dramatic change in, or outright overruling of, *Markman*; instead, the Supreme Court can (and should, in an appropriate case) clarify its position on claim construction by embracing clear error review of subsidiary facts while leaving most of *Markman*—with its well-placed policy concerns for uniformity and stability in patent claim interpretation—intact.¹³⁷

First, *Markman* was primarily about the question of whether judges or juries should construe patent claims.¹³⁸ Nothing in this Article's proposal for clear error review of underlying facts affects the Court's holdings about the respective roles of judges and juries or the Seventh Amendment. Although the application of the Seventh Amendment is related to a distinction between "fact" and "law," Justice Souter explicitly noted in *Markman* that claim construction is a "mongrel" between the two and, thus, that the "sounder course" is to classify it for Seventh Amendment purposes by reference to historical practices.¹³⁹ The holding that historical practices preclude any Seventh Amendment right to the jury determination of claim constructions is not inconsistent with a holding that claim constructions deserve some level of appellate deference. The fact/law distinction that Justice Souter held to be unhelpful in deciding the Seventh

137. Indeed, as Judge Rader observed in dissent in *Cybor*, purely de novo review of patent claim construction rulings has the potential to *decrease*, rather than increase, the stability of the patent system—the reversal rate is so high that litigants can no longer rely on the early determination of patent claims promised by the first *Markman* opinion and must instead wait for the Federal Circuit to rule. Worse—argued Rader, using the example of *CVI/Beta Ventures, Inc. v. Tura LP*, see *infra* note 146—even the Federal Circuit's rulings have lacked stability from appeal to appeal. See *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1476–77 (Fed. Cir. 1998) (Rader, J., dissenting from the pronouncements on claim interpretation in the en banc opinion, concurring in the judgment, and joining part IV of the en banc opinion).

138. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996); see also *Cybor*, 138 F.3d at 1456 (en banc) ("The Court's primary concern in [*Markman*] was the Seventh Amendment issue of whether a right to a jury trial on claim construction inured to a party due to any potential factual issues involved.").

139. 517 U.S. at 378.

Amendment question may retain its vitality in determining a standard of review. Factual and legal determinations in patent claim construction may be too finely distinguished, as a practical matter, to separate out the former for jury determination, but they are not necessarily too finely distinguished for an appellate court to be resistant to overturning the factual findings that a trial judge has made on the way to understanding what a skilled artisan, as opposed to a lay person, learns from a patent.¹⁴⁰ Moreover, the Seventh Amendment question and the deference question are logically distinct; trial judges often serve as factfinders and are still granted deference, and a trial judge serving in this capacity is still able to make credibility determinations.¹⁴¹ Thus, it is only the *stare decisis* holding (and the Court's closely related and absolute-sounding, but not strictly necessary, statements about claim construction being treated as a matter of law) that is in tension with heightened deference.

Second, even the *stare decisis* holding need not change in most cases. As discussed above,¹⁴² rare are cases in which extrinsic evidence—and thus appellate deference to trial court fact-finding—are necessary. In most cases, claim construction will be a purely legal issue and can still be granted *stare decisis* effect. In the remainder of cases, much of the claim construction process is legal in character and can still bind future courts, even if any factual determinations require reexamination in light of a party's proffers of evidence. At first, it might seem peculiar to grant *stare decisis* effect only to some claim constructions or to some portions of a claim construction opinion, but courts often make fine-grained determinations about the extent to which other courts' rulings are controlling, in the contexts both of estoppels and of the distinction between holdings and dicta. There is no reason to believe that such a system is unworkable, and it would preserve a large portion of the uniformity and stability that *Markman* extols.

Finally, the goals of *Markman* might best be served by jettisoning the *stare decisis* holding entirely. It is questionable whether *stare de-*

140. On the other hand, courts often give subsidiary questions of fact to juries but reserve the overarching questions of law for judges. For instance, when construing contracts, underlying factual determinations are often given to juries, even if the interpretation of the document is ultimately a question of law for the court. *Markman v. Westview Instruments*, 52 F.3d 967, 997 (Fed. Cir. 1995) (en banc) (Mayer, J., concurring in the judgment), *aff'd*, 517 U.S. 370 (1996).

141. *Cf. Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589 (1993) (allocating to the trial judge the gatekeeping function of determining whether expert testimony is reliable).

142. *See supra* Part II.B.

cisis has had the pro-uniformity effects for which the Supreme Court hoped. Of federal court decisions that cite *Markman*, only about a dozen discuss the stare decisis effect of claim constructions,¹⁴³ and only a few of these appear to grant stare decisis effect to patent claim constructions; the doctrine is apparently seldom used in practice. Indeed, even the Federal Circuit has declined to apply it. For example, in *CVI/Beta Ventures, Inc. v. Custom Optical Frames, Inc.*,¹⁴⁴ the court construed the claim term “elasticity” one way, solely on the basis of intrinsic evidence.¹⁴⁵ Yet in a subsequent case involving the same patentee, the court declined to use the same construction of the same claim term, and indeed reversed a district court opinion that had done so.¹⁴⁶ If the Federal Circuit is not going to give stare decisis effect to its own claim interpretations, this eviscerates the doctrine entirely: district courts have held that the stare decisis effect does not apply to the decisions of one district court as to another,¹⁴⁷ so the only rulings that ordinarily have binding stare decisis effect are those of an appellate court.¹⁴⁸

Even if the Federal Circuit applied stare decisis more broadly, however, doing so might be a mistake. In *Wilson Sporting Goods Co. v.*

143. These statistics are based on a search of LexisNexis’s “Federal Court Cases, Combined” database on October 29, 2006, using the following query: *Markman* /p patent /p claim /p stare decisis.

144. Nos. 96-1070, 95-1486, 1996 WL 338388 (Fed. Cir. June 19, 1996).

145. *Id.* at *2.

146. *CVI/Beta Ventures, Inc. v. Tura LP*, 112 F.3d 1146, 1157–58 (Fed. Cir. 1997); Moore, *supra* note 34, at 18–21. As Moore notes, the Federal Circuit later attempted to resolve the inconsistency between the two *CVI/Beta* cases on the grounds that the former was in the context of a preliminary injunction proceeding. See Moore, *supra* note 34, at 19–21; *CVI/Beta Ventures*, 112 F.3d at 1160 n.7. It is true that the claim construction in the preliminary injunction proceeding was, due to the early stage of the litigation, nonfinal. *CVI/Beta Ventures*, 112 F.3d at 1160 n.7. However, Moore argues, correctly in my view, that this explanation is not compelling if claim construction is a matter of pure law and where, as in the *CVI/Beta* cases, decisions are made solely on the same intrinsic evidence. Moore, *supra* note 34, at 19–21.

147. *Lamps Plus, Inc. v. Dolan*, No. 3:01-CV-1537-K, 2003 U.S. Dist. LEXIS 19578, at *5–6 (N.D. Tex. Nov. 3, 2003).

148. Intriguingly, the Federal Circuit has occasionally applied stare decisis—or at least cited to previous claim construction rulings—when construing individual claim terms, even when those terms are used in the cited and citing opinions in two entirely different patents and contexts. See, e.g., *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1328 (Fed. Cir. 2006) (citing *Int’l Rectifier Corp. v. IXYS Corp.*, 361 F.3d 1363, 1372–73 (Fed. Cir. 2004)) (construing the term “annular” in a baseball bat patent by using *International Rectifier’s* construction of the same term used in a transistor patent). *Wilson Sporting Goods* is even a post-*Phillips* opinion, in which one might expect the court to construe claim terms only in context—though admittedly the court’s citation pertained to the “ordinary and customary” meaning of the term. *Id.*

Hillerich & Bradsby Co.,¹⁴⁹ the Federal Circuit recently observed that it could not “fully and confidently review [an] infringement judgment, including its claim construction component” because “the record on appeal contain[ed] no description of the accused infringing devices.”¹⁵⁰ This was a striking admission that it is an oversimplification to conceptualize an infringement analysis as involving two separate steps—the construction of the claims as a matter of law and the determination of the accused device’s infringement as a matter of fact.¹⁵¹ Although a patent claim has an abstract and theoretical scope that is independent of any accused infringing embodiment, a judge (either trial or appellate) who endeavors to construe the claim will necessarily attempt to do so in a way that resolves the question at hand: whether the particular accused embodiment infringes. The claim construction that is articulated may not unambiguously resolve whether another embodiment, not at issue, infringes the patent.

To take a trivial example, if a claim describes a “round widget,” a court might announce a claim construction that makes it clear that this covers both solid circular widgets and ring-shaped widgets, for instance by announcing that the claim covers “all widgets whose outer edge is circular.” Such a construction, however, might be counterproductive, if not meaningless, if applied as a matter of stare decisis in a later case where the accused widgets are spherical.

The lesson of *Wilson Sporting Goods*, then, is that although “a trial court should certainly not prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process, knowledge of that product or process provides meaningful context for the first step of the infringement analysis, claim construction.”¹⁵² Applying stare decisis effect to a claim construction that has been derived in another case deprives a court of this context. Although the claim scope ought, in theory, to be the same, the construction articulated by a prior court may ask and answer the wrong questions and determine infringement only as to the wrong set of accused embodiments. Worse, along the way to articulating a claim construction, a court may announce definitions of claim terms that are not directly contested and therefore have not had the benefit of

149. 442 F.3d 1322 (Fed. Cir. 2006).

150. *Id.* at 1330 (emphasis added).

151. See *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc).

152. *Wilson Sporting Goods*, 442 F.3d at 1326–27. The court summarized this principle, rather delphically, in a parenthetical: “while a claim is not to be construed in light of the accused device, in an infringement case, it must inevitably be construed in context of the accused device.” *Id.* at 1327 (citing *SRI Int’l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985)).

being refined by careful, adversarial argumentation. The danger that stare decisis effect will be given to such pronouncements may explain some of the resistance to *Markman's* stare decisis holding by the patent bar.¹⁵³

Finally, one reason why stare decisis is so seldom used may be that, even to the extent that its benefits outweigh its drawbacks, it is unnecessary. The various forms of estoppel achieve many of the same goals while better assuring a result that has been derived in the correct context and through adversarial advocacy by the interested parties. Nonmutual collateral estoppel may always be employed against a patentee on issues of claim construction;¹⁵⁴ judicial estoppel may bind a patentee to the patentee's previous proposed constructions even where that patentee did not originally prevail.¹⁵⁵ Moreover, not only are estoppel doctrines clearer, fairer, and stronger, they apply equally to fact and to law; as such, it is likely that courts use them in preference to stare decisis in the majority of patent cases where they are available, and that in practice they do much of the work that the Supreme Court assigned to stare decisis.

IV. CONCLUSION

Given these considerations, the Supreme Court should consider overruling the Federal Circuit's holding in *Cybor* that every aspect of claim construction is a matter of law for the court. To accomplish this, the Supreme Court—not the Federal Circuit—must eliminate, modify, or clarify *Markman's* stare decisis holding. Notably, the application of stare decisis to claim construction rulings need not disappear entirely, but perhaps it would be no great loss if it did.

Whether or not the Supreme Court ultimately decides to preserve the stare decisis effect of claim constructions, however, it ought to grant certiorari in an appropriate patent infringement case and re-

153. One solution to this problem would be to argue that because definitions of untested or incidental claim terms are not strictly necessary to an infringement determination, they cannot be given stare decisis effect because they amount to dicta. Courts are used to making fine determinations as to what statements are dicta and what are holdings, as dicta do not give rise to stare decisis. See, e.g., *United States v. Dixon*, 509 U.S. 688, 714 (1993) (“Those statements are dicta . . . and thus not binding on us as *stare decisis*.”); *U.S. Nat'l Bank of Or. v. Indep. Ins. Agents of Am., Inc.*, 508 U.S. 439, 463 n.11 (1993) (emphasizing “the need to distinguish an opinion's holding from its dicta”).

To the extent that out-of-context claim construction rulings are dicta and do not give rise to stare decisis, however, the utility of stare decisis as a source of uniformity is undermined.

154. *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 331–33, 349–50 (1971).

155. *New Hampshire v. Maine*, 532 U.S. 742, 750–51 (2001).

consider the implications of *Markman* for the standard of review. *Phillips* was not an appropriate case;¹⁵⁶ despite the appearance of Question 7 in the Federal Circuit's rehearing order,¹⁵⁷ the trial court in *Phillips* heard no expert testimony, and neither the majority nor the dissent in the *Phillips* panel opinion resorted to extrinsic evidence to conduct their claim constructions.¹⁵⁸

The Supreme Court has recently shown signs of taking a greater interest in patent cases and in the decisions of the Federal Circuit.¹⁵⁹ The question of appellate deference to claim construction rulings has created a rift within the patent community that has shown few signs of closing in over ten years. When a suitable case arises in which to consider the question, the Court can and should step into this debate, consider the implications of *Markman*, *Cybor*, and *Phillips*, and attempt to strike a sensible balance between the conceptions of a patent as a legal document and as a technical one.

156. Indeed, the Supreme Court denied certiorari in *Phillips*. *AWH Corp. v. Phillips*, 126 S. Ct. 1332 (2006).

157. *Phillips v. AWH Corp.*, 376 F.3d 1382, 1383 (Fed. Cir. 2004) (per curiam) (granting rehearing en banc).

158. *Phillips v. AWH Corp.*, 363 F.3d 1207 *passim* (Fed. Cir. 2004), *vacated*, 376 F.3d 1382 (Fed. Cir. 2004) (per curiam).

159. See John F. Duffy, *The Festo Decision and the Return of the Supreme Court to the Bar of Patents*, 2002 SUP. CT. REV. 273, 280 ("While the grant of certiorari on such an issue is itself a significant indication of the Court's renewed interest in patent law, other aspects of the case reveal even more about the Court's attitude."). During the October 2005 Term, the Supreme Court decided three cases on appeal from the Federal Circuit, all about patents: *eBay, Inc. v. MercExchange, L.L.C.*, 126 S. Ct. 1837 (2006); *Illinois Tool Works Inc. v. Independent Ink, Inc.*, 126 S. Ct. 1281 (2006); and *Unitherm Food Systems v. Swift-Eckrich, Inc.*, 126 S. Ct. 980 (2006). The Court also heard argument in a fourth case of great significance to the patent bar, but ultimately dismissed the writ of certiorari as improvidently granted. See *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 126 S. Ct. 2921 (2006) (dismissing writ of certiorari over the written dissent of three Justices). Justice Breyer noted in this latter dissent that "a decision from this generalist Court could contribute to the important ongoing debate, among both specialists and generalists, as to whether the patent system, as currently administered and enforced, adequately reflects the 'careful balance' that 'the federal patent laws . . . embod[y].'" *Id.* at 2929 (Breyer, J., dissenting from dismissal of certiorari) (quoting *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989)). A decision from the Supreme Court on the issue presented in this Article would likewise contribute to the ongoing debate about how the federal patent laws are to be administered.