

**United States Court of Appeals
for the Federal Circuit**

LIGHTING BALLAST CONTROL LLC,
Plaintiff-Appellee,

v.

**PHILIPS ELECTRONICS NORTH AMERICA
CORPORATION,**
Defendant,

AND

UNIVERSAL LIGHTING TECHNOLOGIES, INC.,
Defendant-Appellant.

2012-1014

Appeal from the United States District Court for the
Northern District of Texas in case no. 09-CV-0029, Judge
Reed O'Connor.

Decided: February 21, 2014

ANDREW J. DHUEY, of Berkeley, California, argued for plaintiff-appellee on rehearing en banc. With him on the brief were JONATHAN T. SUDER and DAVID A. SKEELS, Friedman, Suder & Cooke, of Fort Worth, Texas; and ROBERT P. GREENSPOON, Flachsbart & Greenspoon, LLC, of Chicago, Illinois.

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ROGER L. COOK, of San Francisco, California, for amicus Ad Hoc Committee of Patent Owners in the Lighting Industry on rehearing en banc.

ON REHEARING EN BANC

Before RADER, *Chief Judge*, NEWMAN, LOURIE, DYK,
PROST, MOORE, O'MALLEY, REYNA, WALLACH, and
TARANTO, *Circuit Judges*. *

* Circuit Judges Chen and Hughes took no part in the consideration or decision of the case.

Opinion for the court filed by NEWMAN, *Circuit Judge*, with whom LOURIE, DYK, PROST, MOORE, and TARANTO, *Circuit Judges*, join.

Concurring opinion filed by LOURIE, *Circuit Judge*.

Dissenting opinion filed by O'MALLEY, *Circuit Judge*, with whom RADER, *Chief Judge*, and REYNA and WALLACH, *Circuit Judges*, join.

NEWMAN, *Circuit Judge*.

The court en banc granted the petition filed by patentee Lighting Ballast Control, in order to reconsider the holding in *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448 (Fed. Cir. 1998) (en banc) establishing the standard of appellate review of district court decisions concerning the meaning and scope of patent claims—called “claim construction.” Implementing the Supreme Court’s decision in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996) (*Markman II*), *aff’g Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc) (*Markman I*), this court in *Cybor* held that patent claim construction receives *de novo* determination on appeal, that is, review for correctness as a matter of law. Such review is conducted on the administrative record and any additional information in the record of the district court, and is determined without deference to the ruling of the district court.

In the case now before us, a panel of this court followed the *Cybor* standard and revised the district court’s claim construction, applying *de novo* the statutory requirements of 35 U.S.C. §112 ¶6 and §112 ¶2.¹ Briefly,

¹ *Lighting Ballast Control, LLC v. Philips Electronics North America Corp.*, No. 7:09-CV-29-O, 2010 WL 4946343 (N.D. Tex. Dec. 2, 2010), *rev’d*, 498 Fed. App’x

the panel held that the claim term “voltage source means” is a means-plus-function term requiring corresponding structure in the specification. On this claim construction, the panel reversed the district court and held the claims invalid for indefiniteness. The patentee requests rehearing, stating that on deferential appellate review the district court would not or should not have been reversed. This court undertook rehearing en banc for the purpose of reconsidering the standard of appellate review of claim construction.

For the reasons we shall discuss, we apply the principles of *stare decisis*, and confirm the *Cybor* standard of *de novo* review of claim construction, whereby the scope of the patent grant is reviewed as a matter of law. After fifteen years of experience with *Cybor*, we conclude that the court should retain plenary review of claim construction, thereby providing national uniformity, consistency, and finality to the meaning and scope of patent claims. The totality of experience has confirmed that *Cybor* is an effective implementation of *Markman II*, and that the criteria for departure from *stare decisis* are not met.

I

THE REHEARING ARGUMENTS

Lighting Ballast argues that *de novo* plenary determination of claim construction is improper appellate practice, stating that the interpretation of documents is fundamentally factual in nature, and that the district court’s interpretation of patent claims requires deference on appeal. Lighting Ballast states that on deferential review the district court’s claim construction for the

986 (Fed. Cir. 2013), *withdrawn*, 500 Fed. App’x 951 (Fed. Cir. 2013).

patent in suit would be sustained, along with the ensuing judgment that the claims in suit are valid and infringed.

This en banc court agreed to reconsider the principle of *de novo* review of claim construction, and invited supplemental briefing and amicus curiae participation on the following questions:

- (1) Should this court overrule *Cybor*?
- (2) Should this court afford deference to any aspect of a district court's claim construction?
- (3) If so, which aspects should be afforded deference?

The parties as well as the amici curiae were not of one mind, but divided among three general views, all thoughtful and well presented.² The general positions are summarized:

² Thirty-eight entities participated as amici curiae in twenty-one briefs. The participants are: Amazon.com, Inc.; American Bar Association; American Intellectual Property Law Association; Austin Intellectual Property Law Association; Association of the Bar of the City of New York; Association of University Technology Managers; Cisco Systems Inc.; Colorado State University Research Foundation; Connecticut Intellectual Property Law Association; Delaware Chapter of the Federal Bar Association; Dell Inc.; EMC Corporation; Federal Circuit Bar Association; Fédération Internationale Des Conseils En Propriété Intellectuelle; Google Inc.; Hewlett-Packard Co.; Intel Corporation; the Intellectual Property Institute of William Mitchell College of Law; the Intellectual Property Law Association of Chicago; the Intellectual Property Owner's Association; former Chief Judge (ret.) Paul R.

The first view

The view favored by Lighting Ballast is that the *Cybor* decision is incorrect and should be entirely discarded. Lighting Ballast argues that this court in *Cybor* misapplied the Supreme Court's decision in *Markman II*, in that the Court had focused only on whether questions of patent claim construction are subject to jury trial, or whether this issue should be decided solely by a judge. These proponents state that the Court in *Markman II*, in deciding the judge-jury question, did not change the traditional distinction between fact and law, recognized that there are factual aspects of claim construction, and did not address the standard of appellate review.

These proponents argue that the Court left intact the protocol of appellate deference to a district court's fact-based rulings, whether the facts relate to claim construction or any other issue, and whether the ruling is by a judge or by a jury. They state that the *Cybor* standard of plenary appellate review is incorrect, and remind us that the Court in *Markman II* described claim construction as

Michel; Professor Peter S. Menell; Microsoft Corp.; New-South Innovations; NUTech Ventures, Inc.; Patent Owners in the Lighting Industry; Public Patent Foundation; Red Hat, Inc.; San Diego Intellectual Property Law Association; SAP America Inc.; SAS Institute Inc.; Sigram Schindler Beteiligungs GmbH; the Science & Technology Corporation at the University of New Mexico (STC.UNM); the University of Nebraska Medical Center Technology Transfer Corporation (UNeMed Corp.); Wisconsin Alumni Research Foundation; TEC Edmonton; the University of Pittsburgh; the United States; and Yahoo! Inc. At the court's invitation, the United States participated in the argument.

a “mongrel practice” of law and fact with “evidentiary underpinnings,” 517 U.S. at 378, 390. They argue that although the Court stated that “the interpretation of a so-called patent claim . . . is a matter of law reserved entirely for the court,” *id.* at 372, the Court did not strip claim construction of its essentially factual nature.

These proponents point out that in construing patent claims, expert testimony and documentary evidence may be presented to the district court. They argue that restoration of deferential appellate review on the clear error standard would not only respect the traditional trial/appellate relationship, but also is more likely to give weight to aspects involving credibility of witnesses. They point out that Federal Rule of Civil Procedure 52(a)(6) requires that the district court’s factual findings receive review on the deferential clearly erroneous standard,³ citing *Pullman-Standard v. Swint*, 456 U.S. 273, 287 (1982) for its statement that Rule 52(a) “does not divide findings of fact into those that deal with ‘ultimate’ and those that deal with ‘subsidiary’ facts.”

These proponents argue that patent claim construction is most reasonably classified as a question of fact, and that the Court’s *Markman II* description of claim construction as better suited to determination by a judge rather than a jury does not affect the requirement of appellate deference to findings of fact made at the trial level. Thus Lighting Ballast urges that the *Cybor* stand-

³ Rule 52 (a)(6) *Setting Aside the Findings*. Findings of fact, whether based on oral or other evidence, must not be set aside unless clearly erroneous, and the reviewing court must give due regard to the trial court’s opportunity to judge the witnesses’ credibility.

ard of *de novo* review is incorrect and should be entirely discarded.

The second view

The second approach, favored by some amici curiae including the United States, may be viewed as a fusion or hybrid of *de novo* review and deferential review. These proponents acknowledge that the Court in *Markman II* described patents as “legal instruments” and stated that interpretation of patent claims is a “purely legal” matter, 517 U.S. at 391, but argue that the correct appellate approach is for the factual aspects of claim construction to be reviewed on the clearly erroneous standard, while the final conclusion receives review as a matter of law. *See, e.g.*, Brief of Amicus Curiae United States at 4 (“Because *Cybor* fails to acknowledge that claim construction may involve factual findings entitled to deferential review under Rule 52(a), it should be overruled. But this Court should reaffirm that the ultimate construction of a patent claim is a legal conclusion subject to *de novo* review.”). The United States draws analogy to the ruling in the regulatory tariff case of *Great Northern Railway Co. v. Merchants’ Elevator Co.*, 259 U.S. 285, 292 (1922), that when ambiguity arises in the construction of certain legal instruments, the ambiguity is resolved as a question of fact.

Some of these amici recognize that difficulties may arise in practice, in knowing which aspects of the district court’s claim construction are subject to deferential review and which aspects receive *de novo* determination. They suggest a solution whereby the standard of review would depend on whether the district court’s claim construction drew solely from the record of the patent and its prosecution history (called “intrinsic evidence”), or whether external information or witness testimony was presented in the district court (that is, “extrinsic evidence”). Apply-

ing this distinction, some amici propose that claim constructions based on extrinsic evidence would receive clearly erroneous review, for such evidence may entail credibility or reliability findings, while constructions based solely on the patent document and prosecution history would receive *de novo* review.

The proponents of a hybrid form of appellate review argue that this approach comports with the Court's position in *Markman II*, yet respects the traditional roles of trial and appellate courts. Thus it is proposed that the standard of review of claim construction should vary with the source and purpose of the evidence, drawing analogy to review of the determination of obviousness under 35 U.S.C. §103. See Brief of Amicus Curiae American Bar Association at 12 ("it is well settled that Rule 52(a) governs appellate review of the factual inquiries underlying the ultimate legal issue of obviousness").

The third view

The third view, supported by some amici curiae, is that *Cybor* is both reasonable and correct in view of the Court's rulings in *Markman II*. These proponents stress the Court's statements that claim construction is a "purely legal" matter, 517 U.S. at 391, and that "the interpretation of a so-called patent claim . . . is a matter of law," *id.* at 372. They argue that *de novo* review of the scope and meaning of patent claims conforms to the rule that applies in all areas of law, that "interpreting a set of legal words . . . in order to determine their basic intent" is a "purely legal matter." *Buford v. United States*, 532 U.S. 59, 65 (2001). They state that sufficient reason has not been shown to change this established and effective precedent in patent cases.

In *Markman II* the Court placed claim construction in historical context, quoting Professor Robinson's treatise:

The duty of interpreting letters-patent has been committed to the courts. A patent is a legal instrument, to be construed, like other legal instruments, according to its tenor Where technical terms are used, or where the qualities of substances or operations mentioned or any similar data necessary to the comprehension of the language of the patent are unknown to the judge, the testimony of witnesses may be received upon these subjects, and any other means of information be employed. *But in the actual interpretation of the patent the court proceeds upon its own responsibility, as an arbiter of the law, giving to the patent its true and final character and force.*

517 U.S. at 388 (quoting 2 W. Robinson, Law of Patents §732, pp. 481–83 (1890)) (emphasis the Court’s). Proponents of retaining the *Cybor* standard point to the Court’s emphasis that the judge is responsible for “the actual interpretation of the patent.” *Id.* These proponents also point to the Court’s citation to *Miller v. Fenton*, 474 U.S. 104 (1985) in support of the Court’s ruling in *Markman II* that:

[W]hen an issue “falls somewhere between a pristine legal standard and a simple historical fact, the fact/law distinction at times has turned on a determination that, as a matter of the sound administration of justice, one judicial actor is better positioned than another to decide the issue in question.” So it turns out here, for judges, not juries, are the better suited to find the acquired meaning of patent terms.

Markman II, 517 U.S. at 388 (quoting *Miller*, 474 U.S. at 114). These proponents argue that *Miller* confirms that the Court in *Markman II* intended to decide—and effectively did decide—both the judge/jury question and the

fact/law question, as well as the related question concerning appellate review.

The Court's reliance on *Miller* in *Markman II* illustrates the Court's recourse to general jurisprudence and practical considerations, suitably applied, in resolving patent issues. Proponents of adherence to *Cybor* point out that *Miller* reiterated the Court's recognition in *Pullman-Standard* that no principle will "unerringly distinguish a factual finding from a legal conclusion." *Miller*, 474 U.S. at 113 (quoting *Pullman-Standard*, 456 U.S. at 288). Proponents apply that observation to criticize departure from *Cybor* that would add, to the already complex laws of claim construction, a new and uncertain and contentious inquiry into which aspects of a particular construction fall on which side of the fact-law line. These proponents state that *Cybor* is not subject to these difficulties, and that there is not sufficient reason to impose this new area of dispute and peripheral litigation upon the trial and appeal of patent cases.

The proponents of *stare decisis* point to the courts' and patent community's fifteen years of experience with *Cybor*, and argue that this experience supports retention of the *Cybor* principle. Emphasizing the potential multi-case and multi-forum litigation of patents on today's technologies, they argue that it is particularly important that this court be able to resolve claim construction definitively as a matter of precedent, rather than allow differing trial court constructions of the same patent, as may result from deferential review of close questions. As the Court observed in *Markman II*, "treating interpretive issues as purely legal will promote (though it will not guarantee) intrajurisdictional certainty through the application of *stare decisis* on those questions not yet subject to interjurisdictional uniformity under the authority of the single appeals court." 517 U.S. at 391.

Thus it is argued that the meaning and scope of a patent claim, which sets the boundaries of an exclusionary right good against the world at large, rather than only for parties to a voluntary transaction or only for the plaintiff and defendant in a particular case, should be construed based on publicly available materials in the record, and resolved for uniform application throughout the nation, as a matter of law. No party or amicus disputed that the only way to achieve uniform construction of the same claim, a goal recognized in *Markman II*, is by *de novo* appellate construction of the claim as a matter of law. There is no dispute as to the importance of national uniformity and finality of claim construction, for it is not unusual for different district courts to litigate the same patent against different parties and different assertions of infringement.

In sum, these proponents argue that the *Cybor* standard of review of claim construction reasonably and appropriately implements the Court's ruling in *Markman II*, and urge this court to stand by *Cybor* and its fifteen years of experience. Proponents of stability through the principles of *stare decisis* stress that consistency of legal analysis and reliability of judicial process are foundations of not only legal systems generally, but also of the technological advance and industrial commitment that are goals of the patent system. See Brief of Amici Curiae Cisco et al. at 15 ("Competing and inconsistent interpretations of patent claims obscure the boundaries of patents and deeply undermine their important notice function, inevitably resulting in more—rather than less—litigation."); *id.* at 19 ("Clear scope is important to all potential market entrants. This kind of horizontal certainty is important to the entire industry.").

The criticism of *Cybor* is not based on any demonstration that *de novo* claim construction is likely to be incor-

rect, but rather on concerns for judicial roles and relationships. We do not ignore these important concerns. However, as proponents of *stare decisis* point out, *Cybor* is narrowly focused on the threshold construction of a legal document, and does not affect the traditional deference to district court findings of infringement or validity or damages or any other question of fact in patent litigation. The proponents remind us that *Cybor* was adopted in implementation of the *Markman* decisions of this court and the Supreme Court, and is in accord with these rulings on the nature of the patent grant and the judicial obligation for correct determination of the legal scope of the patent grant.

Thus it is urged that the *Cybor* standard should not now be abandoned for a more costly and litigious standard, with diminished stability of procedure and diminished reliability of outcome, and no greater likelihood of correctness of result. These proponents point out that those who would change *Cybor*'s system of plenary review of claim construction have not shown any benefit or advantage to the law or those served by the law. Thus it is argued that the values of *stare decisis* counsel against overturning *Cybor*.

II

STARE DECISIS

The question now before this en banc court is not the same question that was before the en banc court in 1998 when *Cybor* was decided. The question now is not whether to adopt a *de novo* standard of review of claim construction, but whether to change that standard adopted fifteen years ago and applied in many hundreds of decisions. There has been extensive experience of *Cybor* in action, in the district court and on appeal. "Claim construction" has become the gateway issue in patent litigation, often decided in preliminary proceedings before trial and before

discovery, and often subject to immediate appeal on summary judgment or injunction grounds. Such experience enriches the principle that courts will “stand by things decided” so that prior rulings may be relied upon.

Stare decisis is of “fundamental importance to the rule of law.” *Hilton v. S. Carolina Pub. Ry. Comm’n*, 502 U.S. 197, 202 (1991) (quoting *Welch v. Texas Dep’t of Highways & Pub. Transp.*, 483 U.S. 468, 494 (1987)). The doctrine of *stare decisis* enhances predictability and efficiency in dispute resolution and legal proceedings, by enabling and fostering reliance on prior rulings. *CSX Transp. Inc. v. McBride*, 131 S. Ct. 2630, 2641 (2011). By providing stability of law that has been decided, *stare decisis* is the foundation of a nation governed by law. The Supreme Court has said: “we will not depart from the doctrine of *stare decisis* without some compelling justification.” *Hilton*, 502 U.S. at 202 (citing *Arizona v. Rumsey*, 467 U.S. 203, 212 (1984)); see *Dickerson v. United States*, 530 U.S. 428, 443 (2000) (“special justification” is needed to overrule precedent).

Stability in procedural as well as substantive law, on which the public and the courts can rely, guards against the expenditure of time and resources on aspects that have been resolved. These values come to the fore when a court undertakes to reexamine its own precedent, for *stare decisis* implements the “prudential and pragmatic considerations designed to test the consistency of overruling a prior decision with the ideal of the rule of law, and to gauge the respective costs of reaffirming and overruling a prior case.” *Planned Parenthood of S.E. Pa. v. Casey*, 505 U.S. 833, 854 (1992). The principles and policies of *stare decisis* operate with full force where, as here, the en banc court is considering overturning its own en banc precedent.

The presumption that a court will adhere to its prior rulings has “special force” for precedents that resolve non-constitutional issues, for “Congress remains free to alter what we have done.” *J.R. Sand & Gravel Co. v. United States*, 552 U.S. 130, 139 (2008) (quoting *Patterson v. McLean Credit Union*, 491 U.S. 164, 172–73 (1989)). In *Patterson* the Court observed that the same issue had previously divided the Court and that “[s]ome Members of this Court believe that [the precedent] was decided incorrectly”; the Court discussed the principles of *stare decisis*, and concluded that “no special justification has been shown for overruling” the prior decision, for neither “the growth of judicial doctrine or further action taken by Congress. . . . have removed or weakened the conceptual underpinnings from the prior decision.” 491 U.S. at 171-173. The Court observed that no “later law has rendered the decision irreconcilable with competing legal doctrines or policies.” *Id.* at 173.

In *Hohn v. United States*, 524 U.S. 236, 253 (1998) the Court discussed its precedent in light of *stare decisis*, and stated that “[o]nce we have decided to reconsider a particular rule, however, we would be remiss if we did not consider the consistency with which it has been applied in practice.” In *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2067-68 (2011) the Court observed that although its prior decision on the same issue was “badly fractured,” the majority holding “has become a fixture in the law,” warranting application of the doctrine of *stare decisis*.

The purposes of consistency and stability that underlie *stare decisis* led to the formation of the Federal Circuit, now thirty years past, to provide consistency and stability to the patent law: “The central purpose is to reduce the widespread lack of uniformity and uncertainty of legal doctrine that exist in the administration of patent law,”

H.R. REP. 97–312, at 23 (1981), in view of the importance of technology-based advance to the nation’s economy, *id.*; S. REP. 97–275, at 6 (1981) (same). Legal doctrine in patent law starts with the construction of patent claims, for the claims measure the legal rights provided by the patent.

In the Federal Circuit decision that led to the Supreme Court’s *Markman II* ruling, this court explained that reviewing claim construction as a matter of law assures “a true and consistent scope of the claims.” *Markman I*, 52 F.3d at 979. The Court did not adjust or criticize that position, which forms the foundation of *Cybor*. *Cybor*, in carrying forward *Markman I* in light of *Markman II*, embodies the view that *de novo* review will “help institute a simplified and clarified method by which both trial and appellate courts address claim construction issues.” *Cybor*, 138 F.3d at 1463 (Plager, J., concurring).

We do not ignore that neither *Cybor* nor the *Markman* decisions were free of contention, then as now. As we undertake this review of *Cybor*, we recognize that *stare decisis* is not an “inexorable command,” *Agostini v. Felton*, 521 U.S. 203, 235 (1997). Thus we have considered whether there are sound reasons for this court now to depart from this precedent. We proceed with the guidance of history, experience, and the many amici curiae, while retaining awareness that to overturn an en banc ruling that has had long and wide application, there must be more than controversy about the prior rule. See *Watson v. United States*, 552 U.S. 74, 82 (2007) (“A difference of opinion within the Court . . . does not keep the door open for another try . . .”). As observed in *Morrow v. Balaski*, 719 F.3d 160, 181 (3d Cir. 2013) (Smith, J., concurring), “the very point of *stare decisis* is to forbid us from revisiting a debate every time there are reasonable arguments to be made on both sides.”

However, departure from precedent may be appropriate when “subsequent cases have undermined [its] doctrinal underpinnings,” *Dickerson*, 530 U.S. at 443; or when the precedent has proved “unworkable,” *J.R. Sand & Gravel Co.*, 552 U.S. at 139; or when “a considerable body of new experience” requires changing the law, *Pearson v. Callahan*, 555 U.S. 224, 234 (2009).

Stare decisis embraces procedural as well as substantive precedent. *Vasquez v. Hillery*, 474 U.S. 254, 266 (1986) (considering whether procedures have so far developed as to have left the old rule “outdated, ill-founded, unworkable, or otherwise legitimately vulnerable to serious reconsideration”); *Swift & Co. v. Wickham*, 382 U.S. 111, 116 (1965) (overruling procedural precedent where “unworkable in practice,” among other problems). Procedures in the litigation-prone arena of patent rights can affect the cost, time, and uncertainty of litigation, and in turn affect economic activity founded on the presence or absence of enforceable patents. Courts should be “cautious before adopting changes that disrupt the settled expectations of the inventing community.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 739 (2002).

Applying these premises, we have reviewed the arguments for changing the *Cybor* procedure of *de novo* review of claim construction. First, we have looked for post-*Cybor* developments, whether from the Supreme Court, from Congress, or from this court, that may have undermined the reasoning of *Cybor*. None has been found, or brought to our attention. There has been no legislative adjustment of the *Cybor* procedure, despite extensive patent-related legislative activity during the entire period of *Cybor*’s existence.

We have looked for some demonstration that *Cybor* has proved unworkable. No proponent of change has

shown that *de novo* review of claim construction is unworkable—nor could they, after fifteen years of experience of ready workability. Nor has anyone shown that *Cybor* has increased the burdens on the courts or litigants conducting claim construction.

To the contrary, reversing *Cybor* or modifying it to introduce a fact/law distinction has a high potential to diminish workability and increase burdens by adding a new and uncertain inquiry, not only on appeal but also in the trial tribunal. No consensus has emerged as to how to adjust *Cybor* to resolve its perceived flaws. Despite probing questioning at the en banc hearing, and despite the extensive amicus curiae participation, there is no agreement on a preferable new mechanism of appellate review of claim construction; there is no analysis of how deference would be applied to the diversity of old and new technologies and modes of claiming, no clear exposition of fact or law as could be applicable to the millions of unexpired patents, each on a different new technologic advance. As will be discussed, no one, including the dissent, proposes a workable replacement standard for *Cybor*, no workable delineation of what constitutes fact and what constitutes law.

Disentangling arguably factual aspects, some in dispute and some not, some the subject of expert or other testimony and some not, some elaborated by documentary evidence and some not, some construed by the district court and some not, some related to issues to be decided by a jury and some not—and further disentangling factual aspects from the application of law to fact—is a task ripe for lengthy peripheral litigation. We are not persuaded that we ought to overturn the en banc *Cybor* decision and replace its clear *de novo* standard with an amorphous standard that places a new, cumbersome, and costly process at the gate, to engender threshold litigation over

whether there was or was not a fact at issue. The principles of *stare decisis* counsel against such an unnecessary change.

No critic of *Cybor* has provided any analysis of specific claims or cases to show, or even to suggest, that deferential appellate review is more likely to achieve the correct claim construction. The principles of *stare decisis* counsel against overturning precedent when there is no evidence of unworkability and no clearly better resolution. The amici curiae agreed that modification of *Cybor* is unlikely to change many results, even if it could be defined well (which it has not been, by any amicus or by our colleagues in dissent).

Claim construction is a legal statement of the scope of the patent right; it does not turn on witness credibility, but on the content of the patent documents. The court may indeed benefit from explanation of the technology and the instruction of treatises, but the elaboration of experts or tutorial explanation of technical subject matter does not convert patent claim construction into a question of fact. The type of evidence that may assist a lay judge in determining what a technical term meant to one of skill in the art does not transform that meaning from a question of law into a question of fact. Reference to technical understanding and usage at the time of enactment does not convert statutory interpretation from law to fact. *See, e.g., Corning Glass Works v. Brennan*, 417 U.S. 188, 202 (1974) (applying “the language of industrial relations” to statutory interpretation).

Courts routinely look to dictionaries and treatises to determine the meaning of a statute at the time it was written. *See, e.g., Sandifer v. U.S. Steel Corp.*, 134 S. Ct. 870 (2014) (looking to dictionaries to determine the meaning of “changing clothes” in the Fair Labor Standards Act at the time of enactment); *Comm’r v. Soliman*, 506 U.S.

168 (1993) (interpreting the tax code by looking to dictionary definitions at the time of enactment); *Chapman v. United States*, 500 U.S. 453 (1991) (using dictionaries to ascertain the ordinary meaning of “mixture” in the drug statute).

Similarly, experts in the science or technology may assist the court in understanding the meaning and usage of a claim term, but this does not morph the question into one of fact. *Cf. United States v. Stone & Downer Co.*, 274 U.S. 225 (1927) (relying on expert testimony on the meaning of the tariff term “clothing wool” in the custom of the trade). The Court stated in *Markman II*:

in theory there could be a case in which a simple credibility judgment would suffice to choose between experts whose testimony was equally consistent with a patent’s internal logic. But our own experience with document construction leaves us doubtful that trial courts will run into many cases like that. In the main, we expect, any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document, required by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole.

517 U.S. at 389. This expectation has proven accurate. The presentation of expert testimony on the meaning of a claim term does not transform the question from one of law to one of fact.

We have carefully considered the arguments for discarding or modifying *Cybor*, and conclude that they do not justify departing from the now well-established principles and procedures. Under any standard of review consistent with *Markman II*, most issues of claim construction are indisputably matters of law, and would receive *de novo*

review. Even the critics of *Cybor* agree that any change would affect only a small number of claim construction disputes. Statements at the en banc hearing are edifying; e.g., Tr. at 1:14:10–1:14:35 (Appellant) (“This court could, in whatever it does with *Cybor*, make very clear that this battle of competing experts is rarely productive, rarely going to influence claim construction. . . . If you said to me, why doesn’t *stare decisis* carry the day? I don’t have a good answer to that.”); *id.* at 55:15–55:20 (United States) (“this court’s law on claim construction requires very little modification”); *id.* at 1:06:50–1:07:30 (United States) (whether a term has special meaning in the art could be “meaningless ultimately” if inconsistent with the intrinsic record).

In response to a question at the hearing, amicus curiae United States could not identify any case that would have come out differently under the modified (hybrid) standard of review it proposed. Tr. at 1:07:30–1:08:00. Certainly *stare decisis* counsels against overturning en banc precedent where doing so would change our known, workable *de novo* standard to an undefined alternative, sure to engender peripheral litigation, and which most agree could affect the outcome of very few, if any cases. See *Pearson*, 555 U.S. at 236–37 (criticizing precedent that “sometimes results in a substantial expenditure of scarce judicial resources on difficult questions that have no effect on the outcome of the case”).

Claim construction is often a preliminary proceeding in the district court, before trial of infringement, validity, damages, etc. At the threshold, the court establishes the metes and bounds of the claims that define the patent right. The questions of claim construction are not questions of weight of evidence or credibility of witnesses, but of the claim scope as set forth in the patent documents.

Claim construction is the interpretation of a legal document that establishes a property right that applies throughout the nation. The question under review is whether this court, of nation-wide jurisdiction, should continue to review claim construction *de novo* with national effect, or whether to change to a system whereby a district court's claim construction is reviewed on the deferential standard appropriate to findings of fact, with or without some sort of hybrid deference to the ultimate determination. The insistence of some amici curiae that some form of deferential review is required as well as superior, is not only contrary to the *Markman* holdings, but to the experience of fifteen years of *Cybor*.

In the increasingly frequent situation where the same patent is litigated in different forums against different defendants, differing district court rulings on close questions of claim construction could well warrant affirmance on deferential review. Because differing claim constructions can lead to different results for infringement and validity, the possibility of disparate district court constructions unravels the “uniformity in the treatment of a given patent” that the Court sought to achieve in *Markman II*. 517 U.S. at 390. It would restore the forum shopping that the Federal Circuit was created to avoid. Just as the Court in *Markman II* counted such consequences as negatives that its ruling overcame, they count as negatives in the *stare decisis* analysis.

The question that this court has now reconsidered is whether we should continue to review claim construction as a whole and *de novo* on the record, or whether we should change to a different system that at best would require us to identify any factual aspects and how the trial judge decided them, and review any found or inferred facts not for correctness but on a deferential standard, with or without also giving deferential review to the

ultimate determination of the meaning of the claims. We conclude that such changed procedure is not superior to the existing posture of plenary review of claim construction.

Over these fifteen years this court has applied *Cybor* to diverse subject matter, and the body of precedent has grown large. Deferential review does not promise either improved consistency or increased clarity. We have been offered no argument of public policy, or changed circumstances, or unworkability or intolerability, or any other justification for changing the *Cybor* methodology and abandoning *de novo* review of claim construction.

The proponents of overruling *Cybor* have not met the demanding standards of the doctrine of *stare decisis*. They have not shown that *Cybor* is inconsistent with any law or precedent, or that greater deference will produce any greater public or private benefit. We conclude that there is neither “grave necessity” nor “special justification” for departing from *Cybor*.

III

REMARKS ON THE DISSENT

Our colleagues in dissent offer a few arguments that warrant response. First, referring to “the materials submitted to the court,” the dissent states that “a substantial proportion of the legal community” believes that *Cybor* was “wrongly decided.” Diss. at 6. The materials tell a different tale.

As listed *ante*, at n.2, thirty-eight organizations and individuals filed twenty-one amicus briefs. Contrary to the dissent’s statements, all of the technology industries that offered advice to the court, urge retention of *Cybor*’s standard. These amici curiae include the largest technology companies in the nation, all involved with the system of patents, all frequent patent litigants both as plaintiffs

and as defendants—unlike all of the other amici.⁴ The dissent dismisses these voices as merely “some amici” who support retention of *Cybor*, Diss. at 6, and offers no response to their concerns for stability, national uniformity, and predictability in claim construction.

The dissent appears unconcerned that the major industrial amici urge retention of the *Cybor* standard, and instead announces that “no one in the legal community—except perhaps the members of the majority—has come to believe that either the wisdom or vitality of *Cybor* is settled,” Diss. at 6. This conclusion is curious. For example, the amicus brief of Google, Amazon, Hewlett-Packard, Red Hat and Yahoo! states that departing from *Cybor* would “make worse” the uncertainty of claim construction:

[T]he root causes of uncertainty in claim construction are vaguely drafted claims and contradictory claim-construction methodologies, not appellate review. Deference would not ameliorate those causes of uncertainty; it would make them worse.

* * *

[T]reating claim construction as a factual question subject to clear-error review would only aggravate the uncertainty and cost issues plaguing our patent-litigation system.

⁴ Amazon.com, Inc., Cisco Systems, Inc., Dell Inc., EMC Corporation, Google Inc., Hewlett-Packard Co., Intel Corporation, Microsoft Corporation, SAP America Inc., Red Hat, Inc., and Yahoo! Inc. Other amici in support of preserving the full *Cybor* standard are the Austin Intellectual Property Lawyers Association and the Intellectual Property Institute at the William Mitchell College of Law.

Brief of Amicus Curiae Google et al. at 4, 5.

The industrial amici also respond to the argument, pressed by the dissenters, that treating claim construction as a matter of law negates settlement and increases litigation cost. Diss. at 35. These litigants advise that the contrary is true:

[C]lassifying claim construction as being at least partly factual would make patent litigation even more costly by discouraging courts from resolving claim construction disputes at the outset. Early claim construction is essential to permit the parties to file summary judgment motions, or to engage in informed settlement discussions, before they have to incur potentially unnecessary discovery and other pre-trial costs—costs that force many defendants to settle even meritless cases solely because the exorbitant cost of litigating a case would exceed the settlement amount demanded by the plaintiff.

Google et al. Br. at 4-5. Even Appellant's counsel at oral argument contradicted the cost-of-litigation and settlement arguments:

A lot of commentators have said *Cybor* is preventing settlements: I don't believe that. I settle cases all the time. No one has ever focused primarily or even significantly on the standard of review on appeal. They're focused on the jury. They're focused on the cost of litigation. So a lot of what's been put up as reasons to change *Cybor* I don't think are there.

Tr. 1:14:40-1:15:05.

In the brief filed by Cisco, Dell, EMC, Intel, SAP, and the SAS Institute, these amici curiae suggest that the

proponents of overturning *Cybor* incorrectly conflate concepts of uncertainty with appellate reversal rates. These amici explain that any possible uncertainty of affirmance on appeal is not the issue in claim construction; rather, the issue is how to generate accuracy and uniformity in claim construction, that is, how to construe claims correctly and predictably.

Clear scope is important to all potential market entrants. This kind of horizontal certainty is important to the entire industry. By contrast, the concern that *de novo* review increases the “duration” of a single patent litigation until a final decision is reached in that particular case (*Cybor*, 138 F.3d at 1476 (Rader, J., dissenting))—what might be called vertical uncertainty—matters only in the small fraction of cases that reach an appeal. Vertical uncertainty is more visible than horizontal uncertainty, but, as often is the case, here it is the unseen effects that are greater. Cf. *Frédéric Bastiat, What Is Seen and What Is Not Seen* (1848), available at <http://www.econlib.org/library/Bastiat/basEss1.html>.

For this reason, it is not merely the overarching principles of claim construction, but their application, that must be consistent. In claim construction as elsewhere, “the relevant legal principle can be given meaning only through its application to the particular circumstances of a case.” *Miller*, 474 U.S. at 114.

Brief of Amicus Curiae Cisco et al. at 19.

The Cisco amici emphasize the Supreme Court’s recognition of “the importance of uniformity” in *Markman II*, 517 U.S. at 390, and stress that treating claim con-

struction issues as “purely legal,” *id.* at 391, enables appellate review to supply that uniformity:

Federal Circuit review, and in particular this Court’s application of *stare decisis*, is critical to such uniformity. As the Supreme Court explained, “treating interpretive issues as purely legal” will allow *stare decisis* to be applied to those interpretive questions and thus promote uniformity among decisions of this Court (so-called “intra-jurisdictional certainty”).

Cisco et al. Br. at 5 (citing and quoting *Markman II*, 517 U.S. at 391). These amici also discuss the “hybrid” proposal of some theorists, and state:

“treating interpretive issues as purely legal”—not as a mixed question—is the proper approach.

Id. at 5 (quoting *Markman II*, 517 U.S. at 391).

Amicus Microsoft discusses another aspect of the *Cybor* treatment of claim construction, advising that *de novo* review

works well in practice because it allows the parties to address questions concerning claim scope in pre-trial hearings well in advance of the actual trial. Having a jury decide these redesignated factual matters could eliminate the current practice of pre-trial *Markman* hearings. This would exacerbate the expense and uncertainty in patent litigation and create new opportunities for forum shopping.

Brief of Amicus Curiae Microsoft at 3.

In sum, the amici curiae record of the nation’s major innovators is contrary to the dissent’s representation that “no one in the legal community—except perhaps the

members of the majority—has come to believe that either the wisdom or vitality of *Cybor* is settled.” Diss. at 6. The amici curiae record is contrary to the dissent’s pronouncement that “the interests of stability and predictability are disserved” by *Cybor*’s access to final, uniform, national claim construction. Diss. at 29. The nation’s major innovators do not agree with the criticisms of *Cybor*, and so advised the court. These amici direct the court to the pragmatic value of *Cybor* as they have experienced it, and urge retention of that value.

Rather than respond to the concerns of the nation’s technology industries, the dissent chastizes certain judges of this court for not “acting on their long-term convictions.” Diss. at 2. While it is comforting to know that our golden words of the past are not forgotten, those of us with the majority today who have questioned aspects of *Cybor* in the past, now decide this case on the record of the present and with an eye to the future. The dissent would discard the experience of the past fifteen years. However, the court is not now deciding whether to adopt a *de novo* standard in 1998. Today we decide whether to cast aside the standard that has been in place for fifteen years.

The dissent offers no superior alternative to *de novo* review, nor any workable standard for distinguishing between legal and factual components of claim construction. The dissent does not appear to adopt the proposal of several amici that appellate deference should depend on whether the district court relied on intrinsic or extrinsic evidence in construing a claim term. It is surely doubtful that such a distinction controls whether claim construction is fact or law. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1317 (Fed. Cir. 2005) (en banc) (discussing sources of evidence in claim construction, and stating “while extrinsic evidence ‘can shed useful light on the relevant

art,’ we have explained that it is ‘less significant than the intrinsic record in determining ‘the legally operative meaning of claim language’”) (citing cases). We have come upon no rationale for denominating an issue of claim construction as one of fact or law depending on the source of the information considered by the judge.

The dissent seems to embrace (then expand upon) the “historical fact” notion proposed by Appellant, who states that the meaning a person of ordinary skill in the art would give a term at the time of the filing of the patent application ought to be treated as a question of fact. This is not a question of fact; it is the very inquiry which determines the claim construction in nearly all cases. Claim terms are given their ordinary meaning to one of skill in the art, unless the patent documents show that the patentee departed from that meaning. *See Phillips*, 415 F.3d at 1314; *Thorner v. Sony Computer Entm’t Am., LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Treating the ordinary meaning to a skilled artisan as requiring deference would mean deference on the controlling question of claim construction in nearly every case. All the more so with the dissent’s proposed treatment of still additional issues, such as prosecution disclaimer, as warranting deference. Diss. at 42.

Under the dissent’s approach, and even under the “historical fact” approach, deference would become of central significance in controlling the determination of claim construction, and hence of patent scope. The consequence would be heightened forum-shopping and the inability of the judicial system to arrive at a uniform, settled meaning for a patent’s scope. Those problems are grave ones given the increasingly common situation of multiple cases involving the same patent.

The dissenters do not explain why they choose to abandon the benefits foreseen by the Court in *Markman II*, that “treating interpretive issues as purely legal” would have benefits of “intra-jurisdictional certainty.” 517 U.S. at 391. Nor have they successfully explained away the analysis in *Miller v. Fenton*, 474 U.S. at 113–14, that:

[T]he practical truth that the decision to label an issue a “question of law,” a “question of fact,” or a “mixed question of law and fact” is sometimes as much a matter of allocation as it is of analysis [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.

(cited in *Markman II*, 517 U.S. at 388). The Court in *Miller* explained that the fact/law distinction is not immutable, and may invoke “the sound administration of justice,” *id.* at 114, leading to a similar acknowledgement in the *Markman II* ruling that claim construction is “a matter of law reserved entirely for the court.” 517 U.S. at 372.

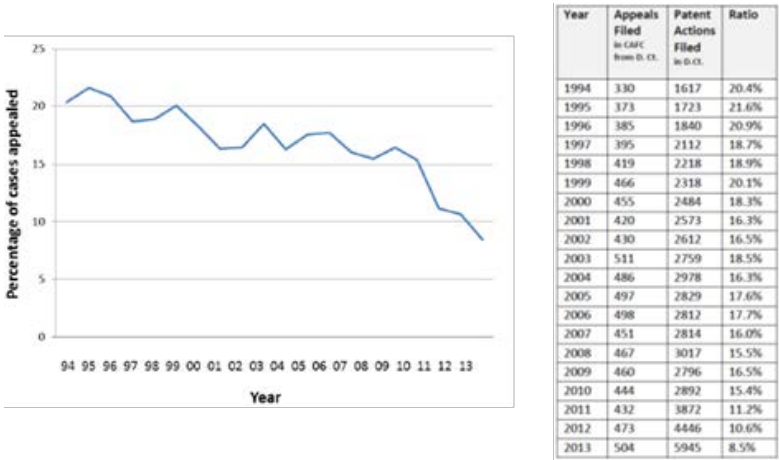
In addition, the dissent downplays the gravity of overturning a previous en banc court in the absence of intervening Supreme Court or legislative action. Of the several decisions of the Federal Circuit that the dissent cites as setting a pattern of overturning precedent, all involve en banc review of panel precedents, with the arguable exception of *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 1068 & n.5 (Fed. Cir. 1998) (en banc in relevant part), where the court clarified that this court’s law would govern the question of patent/antitrust immunity.

The major thrust of the dissent is that Federal Rule 52(a)(6) requires deferential review of district court decisions. But Rule 52(a) does not answer the question here. Rule 52(a) prescribes the standard of review of questions of fact, but courts must look outside the Rule to decide if a question is properly characterized as one of fact. As the Court stated in *Pullman-Standard*, 456 U.S. at 288, “Rule 52(a) does not furnish particular guidance with respect to distinguishing law from fact. Nor do we yet know of any other rule or principle that will unerringly distinguish a factual finding from a legal conclusion.” The dissent’s theory that Rule 52(a) demands abandonment of *de novo* review of claim construction is a simplistic disregard of the *Markman II* guidance that “treating interpretive issues as purely legal will promote (though it will not guarantee) intrajurisdictional certainty.” 517 U.S. at 391.

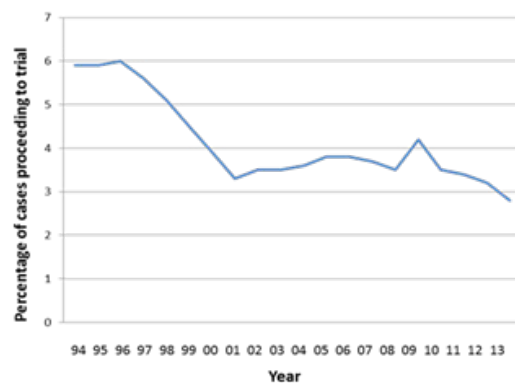
The dissent argues that *de novo* review produces a high reversal rate, although it is established that this is no longer true. The reversal rate indeed was a matter of concern, for in the early years of *Cybor*, this court’s promulgation of claim construction law led to a higher rate of appellate adjustment. However, as consistency evolved and experience grew, rates of appellate reversal for claim construction came to match the norm for other grounds. We observe that every amicus brief that complains about high reversal rates relies on data that are seven to ten or more years old, while the author of a recent study writes in his amicus brief that the data “document a significant drop in the claim construction reversal rate” since 2005, Brief of Amicus Curiae Professor Peter Menell at 15, and explains in his study that “[n]ow the reversal rate for claim construction appeals is much closer to that of other patent-related issues.” J. Jonas Anderson & Peter S. Menell, *Informal Deference: An Historical, Empirical, and Normative Analysis of Patent Claim Construction*, 108

Nw. U. L. Rev. (forthcoming), Sept. 9, 2013 manuscript at 37.

Our colleagues in dissent, citing the obsolete data, argue that the *de novo* standard “adds considerable uncertainty and expense to patent litigation,” Diss. at 4, stating that this standard increases appeals, discourages settlement, and increases the length and cost of litigation. No evidence of this effect is offered, and all of the amici curiae who are frequent litigants state the contrary position. The data published by the Administrative Office of the United States Courts point the other way. These data show a long, noticeable decline in the percentage of district court patent cases that are appealed, belying the argument that appeals have increased. The following data are from the Annual Reports of the Administrative Office for the years 1994 to 2013. The graph shows the ratio, as a percentage, of the number of patent appeals filed per year (Report Table B-8), against the number of district court patent cases filed in that year (Report Table C-2):



The Annual Reports also show the trend in the percentage of patent cases that proceed to trial in the district courts. The data from Table C-4 in the Reports show the percentage declining from 5.9% in 1994 to 2.8% in 2013:



Year	Percent of patent actions to trial
1994	5.9
1995	5.9
1996	6
1997	5.6
1998	5.1
1999	4.5
2000	3.9
2001	3.3
2002	3.5
2003	3.5
2004	3.6
2005	3.8
2006	3.8
2007	3.7
2008	3.5
2009	4.2
2010	3.5
2011	3.4
2012	3.2
2013	2.8

The data do not support the dissent's theory that *Cybor* has increased patent litigation and inhibited settlements. In contrast, the industrial amici curiae advise the court that the *Cybor* review procedure assists in resolving litigation before full trial or extensive discovery, for it often leads to the grant of summary judgment and an immediate appeal. These amici stress that settlement is facilitated by final resolution of the scope of the claims. They also point out that if the claim construction is definitively resolved, any ensuing trial is on the final claim construction. The dissent does not comment on these values.

CONCLUSION

We have again considered the standard of review of district court claim construction rulings, in light of expe-

rience with the *Cybor* standard. The ever-enlarging importance of technology-based industry in the economy has reinforced the need for an optimum patent system.

On thorough review, we are not persuaded that discarding *de novo* review would produce a better or more reliable or more accurate or more just determination of patent claim scope. Those who urge change in the *Cybor* standard have identified no pattern of error, no indictment of inferior results. No ground has been shown for departing from the principles of *stare decisis*. Review of claim construction as a matter of law has demonstrated its feasibility, experience has enlarged its values, and no clearly better alternative has been proposed. There has arisen no intervening precedent, no contrary legislation, no shift in public policy, no unworkability of the standard.

We conclude that the criteria are not met for overruling or modifying the *Cybor* standard of *de novo* review of claim construction as a matter of law.

PANEL DECISION REINSTATED

No costs.

**United States Court of Appeals
for the Federal Circuit**

LIGHTING BALLAST CONTROL LLC,
Plaintiff-Appellee,

v.

**PHILIPS ELECTRONICS NORTH AMERICA
CORPORATION,**
Defendant,

AND

UNIVERSAL LIGHTING TECHNOLOGIES, INC.,
Defendant-Appellant.

2012-1014

Appeal from the United States District Court for the
Northern District of Texas in Case No. 09-CV-0029, Judge
Reed O'Connor.

LOURIE, *Circuit Judge*, concurring.

I fully agree with the majority opinion and join it. I
write separately to note what I believe are additional
reasons why retaining *Cybor* is wise.

First and foremost is that the Supreme Court has held that claim construction is a question for the court rather than the jury. Thus, for us to appear to be cutting back from that holding by giving formal deference on so-called fact-like questions, which normally would go to the jury, to the district court judge, would seem to me to be an attempt to partially retreat from the Court's holding, which is unwise.

We have held that claim construction is a question of law, going only minimally beyond the Court's explicit holding that it is only a question for the court. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454–55 (Fed. Cir. 1998) (en banc). The Court's holding, including its statement that it is a “mongrel” question, does not encourage fractionation of the process, making part of it subject to de novo review and part clearly erroneous review. The Court in *Markman* stated that construction of terms of art should be ceded to the judge “notwithstanding its evidentiary underpinnings.” The “notwithstanding” applies to any factual as well as legal aspects of claim construction. Evidentiary underpinnings do not lean toward a clearly erroneous standard any more than they do to the jury.

Equally important, one of the purposes of Congress in creating our court was to achieve uniformity in the patent law. Consistent with that goal should be uniformity of interpretation in construction of patent claims. It is not rare that a patent is asserted against more than one defendant in different forums, with conflicting holdings on infringement. It would hardly promote uniformity of patent law for us to bless a claim construction in one district court, based on that court's judging the credibility and demeanor of the expert witnesses in one case, when a different case might lead to a different result based on a different district judge's appraisal of different witnesses.

We in fact might be confirming conflicting claim constructions, the antithesis of uniformity. This problem might increasingly exist in light of the AIA's limits on the number of accused infringers that can be joined as defendants in one lawsuit, thereby creating the possibility of more lawsuits on the same patent, and more inconsistency, than existed in the past. *See* 35 U.S.C. § 299(a); *In re EMC Corp.*, 677 F.3d 1351 (Fed. Cir. 2012).

By our deferring to those determinations, conceding our full review of the meaning of a claim term, which should be based on the patent's written description and prosecution history, not the witnesses, hampers our ability to interpret claims with full authority and hence to ensure uniformity.

Furthermore, claim construction is not a process that normally involves historical facts. It primarily involves reading the patent's written description as well as the prosecution history of the patent, and this court is quite as able to do that as any district court, sometimes better. It is true that there may be questions concerning what a particular claim term meant to one skilled in the art at a particular time, but, in my view, when the trial judge is subjected to dueling experts selected for their views, choosing which of them to credit hardly amounts to historical fact-finding. To the extent that it does, the relevant inquiry should be, not what the dueling experts say, but what the inventor understood the term to mean when he or she filed the patent application containing the claim term in question. Courts should be reluctant to go beyond the written record to help answer that question. It is too subject to ex post facto thinking based on self-interest; the inventor had his chance to define his invention and should not be heard in later testimony to get another bite at the apple by redefining that language.

A realistic assessment of the problem in claim construction in litigation recognizes that the patenting process begins with an inventor and his or her attorney drafting a written description and claims to describe and specifically claim his or her invention. The claims will usually then get negotiated in the Patent Office. The issued claims are then used, pursuant to some perceived business need or desire, by a different lawyer who had no part in the drafting of the written description and claims, who then tries in front of a lay judge to shoehorn an accused infringer into claims that usually do not fit (or else claim construction and infringement would not be at issue).

Hired “experts,” supporting the parties’ theories of infringement or non-infringement take positions that are also distinct and isolated from (and often different from) those originally taken by the inventor and attorney, who knew what the invention was and what positions were taken in the Patent Office during prosecution. Thus, the problem lies, not with lack of deference to district court interpretation of claims by the Federal Circuit, but to the multiplicity of actors contending in a competitive economy. The actors striving to deal with a patent in district court are often not those who made the invention, created the patent, and hence knew exactly what it meant. The solution does not lie in depriving the one institution charged with ensuring uniformity of part of its authority.

Much criticism has been directed at this court for allegedly ignoring all the fine work of district court judges in construing patent claims. That criticism is premised on the misperception that we do not give a district court’s claim construction any deference. That is incorrect; perhaps one even might say “clearly erroneous.”

The rubric governing issues of law unfortunately does read “no deference.” But even though we all know that

the rubric governing procedural errors is the harsh “abuse of discretion” language, all judges know that a finding of a procedural error does not normally justify the term “abuse.” Similarly, the “no deference” language is simply established legal jargon for a holding that, having reviewed the record, we disagree. It has been stated in some amicus briefs before the court that there are truly factual issues involved in claim construction, particularly what a claim term meant to one skilled in the art at a particular time, and that such a determination should be given deference. But we should not complicate the law and change our precedent for such a situation. This court should rarely overturn a district court’s claim construction on a finding of that nature.

This appellate court, when asked to interpret the claims of a patent carefully, notes and considers how the district court construed the claims. If we disagree, it is not without a degree of informal deference. Claims are to be interpreted in light of the written description in the patent specification, and in light of the prosecution. The choice of expert witnesses by parties’ counsel, and their demeanor, do not override those basic documents. Very few scientists called as expert witnesses will lie, hence the term “credibility,” useful in more conventional fact determinations, such as whether a traffic light was red or not, should not be controlling in construing claim limitations in a patent.

Claim construction is analogous to interpretation of other legal instruments, such as contracts and legislation. Each of these determinations is for the court, not a jury, although each can be found to contain factual components (it should be noted though that, at least in patent prosecution, the intent of neither the inventor-attorney nor the patent examiner is usually at issue in claim construction). Thus, beyond what the Court has held in *Markman*, there

is good analogical basis for considering claim construction as similar to interpretation of these other legal instruments. Moreover, to the extent that underlying considerations create the “mongrel” nature of claim construction, considering factual components to be subject to deference under a clearly erroneous rule would implicate the Seventh Amendment right to a jury trial on factual questions. Such a procedure would further threaten the uniformity that Congress intended in setting up this court as well as the Supreme Court’s ruling that claim construction is not for the jury.

What the proponents of splitting construction into legal and factual issues are in essence contending for is that some issues in patent infringement are for the judge (some claim construction issues), some are also for the judge, but are of a factual nature, ordinarily as for a jury, and some clearly for the jury, *i.e.*, infringement. However, in claim construction, simpler is better—claim construction in all its aspects for the judge, subject to review by the appellate court, with sensible reliance on the prior work of the trial judge. Creating a formal distinction between fact-sounding issues subordinate to claim construction and the ultimate claim construction is a complication that we should not foist on this court.

A further point is that ultimately it should not matter whether claim construction has a factual component to which formal deference attaches or not. If, as I believe we should, and do, give proper informal deference to the work of judges of a subordinate tribunal, then we will or should affirm when affirmance is appropriate. If, on the other hand, we were to apply a more formal clearly erroneous standard, judgments of subordinate courts are still not unreviewable. If we were to find that the so-called factual component, based on our review of the intrinsic record, has been determined incorrectly, clearly we could find it

to be incorrect even with a clearly erroneous standard. Thus, this is an argument that should not much matter.

Moreover, to the extent we were to overrule *Cybor*, or modify it, and give formal deference to district courts, but reserve the right to decide the ultimate issues of obviousness and validity as questions of law, we would be engaging in a kind of sham, giving with one hand and taking back with the other. Doing so would bow to what amounts to a cosmetic public, or judicial, exercise in order to overcome the harsh rubric of “no deference.”

To the extent that critics assert that *de novo* review has not achieved the goal of uniformity, I believe that deferring to district court judges on subsidiary, extrinsic fact-related issues, and relying on experts hired for having positions favorable to particular parties would likely result in even less uniformity. At least under our current regime, claim construction in all its aspects is reviewed by one appellate court. And providing formal deference to district courts in evaluating fact-related issues would encourage migration away from reliance on the intrinsic written record of the patent specification and its prosecution history.

One should also make no mistake about it: if deference were to be given to rulings on complicated subject matter, intensive appellate review would fade away (how many appeals from the PTO are now reversed following *Zurko*’s increase in the degree of deference given to the relatively expert examining agency?), and so will uniformity. In addition, if determining whether an issue is fact or law would determine the degree of deference granted, parties would be arguing over that question, as in appeals in veterans cases, rather than the real merits of claim construction. As for the relatively high reversal rate of claim construction at this court, I very much doubt that it is primarily due to so-called issues of historical

fact; they are primarily due to our court’s review of the claims in light of the specification, not to failure to judge the credibility of contending expert witnesses. Besides, the reversal rate on claim construction is apparently coming down. See J. Jonas Anderson & Peter S. Menell, *Informal Deference: An Historical, Empirical, and Normative Analysis of Patent Claim Construction*, 108 Nw. U. L. Rev. __, 1 (forthcoming 2014).

This case did not involve subsidiary findings resolving disputes of historical fact. What was involved was whether there was corresponding structure to support “voltage source means” for “providing a constant or variable magnitude DC voltage between the DC input terminals”. The panel found the means clause in the claim lacked sufficient structure, and the specification similarly was lacking, so it reversed the district court on the ground that the claims were indefinite. Historical fact-finding was not involved; reading the claims and written description was. The en banc court should arrive at the same conclusion, as the district court did not rely on any subsidiary findings of fact. How a means plus function term is construed under § 112, ¶ 6 is not fact, but claim construction, *i.e.*, law.

For the above reasons, in addition to the majority’s reliance on the doctrine of *stare decisis*, I support the court’s decision not to overrule *Cybor*.

**United States Court of Appeals
for the Federal Circuit**

LIGHTING BALLAST CONTROL LLC,
Plaintiff-Appellee,

v.

**PHILIPS ELECTRONICS NORTH AMERICA
CORPORATION,**
Defendant,

AND

UNIVERSAL LIGHTING TECHNOLOGIES, INC.,
Defendant-Appellant.

2012-1014

Appeal from the United States District Court for the
Northern District of Texas in case no. 09-CV-0029, Judge
Reed O'Connor.

O'MALLEY, *Circuit Judge*, dissenting, with whom RADER,
Chief Judge, REYNA and WALLACH, *Circuit Judges*, join.

District judges, both parties in this case, and the ma-
jority of intellectual property lawyers and academics

around the country will no doubt be surprised by today's majority opinion—and for good reason. The majority opinion is surprising because it refuses to acknowledge what experience has shown us and what even a cursory reading of the Supreme Court's decision in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), confirms: construing the claims of a patent at times requires district courts to resolve questions of fact. And, it puts itself at odds with binding congressional and Supreme Court authority when it refuses to abide by the requirements of Rule 52(a)(6) of the Federal Rules of Civil Procedure, which expressly instructs that, on appeal, *all* “findings of fact . . . must not be set aside unless clearly erroneous.” It is also surprising because, having, for the third time, invited a broad swath of the intellectual property community to express opinions regarding the merits of *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448 (Fed. Cir. 1998) (en banc), we now premise our refusal to change its holding on principles of stare decisis—that, and a professed inability to come up with a workable alternative to de novo review.¹

Criticism of and debate over *Cybor* have been widespread since it issued—not only among legal scholars and patent practitioners, but also among members of this court. Despite this fact, the majority suggests, for the first time in the ongoing debate over it, that *Cybor* is too firmly established in our case law to be rethought. In fact, it appears that some members of today's 6–4 majority believe the pull of stare decisis is so strong that it prevents them from acting on their long-term convictions

¹ We invited and received input regarding the standard of review to be applied to claim construction in *Cybor* itself, in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and now in this case.

that *Cybor* was wrongly decided. No reasoned application of stare decisis principles supports that conclusion.

To the extent the majority is motivated not just by a resistance to change, but by concern over what standard we should change to, those concerns can be allayed by reference to Rule 52(a)(6) of the Federal Rules of Civil Procedure, the Supreme Court’s case law governing that rule, and a realistic assessment of what the claim construction process entails.

Because principles of stare decisis do not justify retention of the rule of *Cybor* and the appropriate standard of review is dictated by Rule 52(a), I respectfully dissent.

I.

In *Cybor*, this court held that claim construction, “including any allegedly fact-based questions relating to claim construction,” presents “a purely legal question” subject to de novo review. *Cybor*, 138 F.3d at 1456. We reached that conclusion even though, in *Markman*, the Supreme Court repeatedly acknowledged the factual component of claim construction. There, the Court: (1) labeled claim construction as a “mongrel practice,” (2) suggested that construing a patent’s claims “falls somewhere between a pristine legal standard and a simple historical fact,” (3) indicated that “there could be a case in which a simple credibility judgment would suffice to choose between experts whose testimony was equally consistent with a patent’s internal logic,” (4) discussed the need “to ascertain whether an expert’s proposed definition fully comports with the specification and claims,” and (5) described claim construction’s “evidentiary underpinnings.” *Markman*, 517 U.S. at 378, 388–90 (citation and internal quotation marks omitted). Despite being urged to do so by *both* parties, the Patent and Trademark Office, and multiple amici, the majority refuses to overturn

Cybor.² The majority rests its judgment primarily on the principles of stare decisis. It asserts that our fifteen years of experience with *Cybor* teach that our continued de novo review of all claim construction determinations is needed to assure greater “reliability of outcome” and “interjurisdictional uniformity.” Maj. Op. at 14, 16.

Considerations of stare decisis, however, do not justify adhering to precedent that misapprehends the Supreme Court’s guidance, contravenes the Federal Rules of Civil Procedure, and adds considerable uncertainty and expense to patent litigation.

II.

Stare decisis is an important part of our jurisprudence, and departing from our precedent is not something we should do lightly. The doctrine “promotes the evenhanded, predictable, and consistent development of legal principles, fosters reliance on judicial decisions, and contributes to the actual and perceived integrity of the judicial process.” *Payne v. Tennessee*, 501 U.S. 808, 827 (1991). It also serves to guard against “arbitrary discretion.” *Hubbard v. United States*, 514 U.S. 695, 711 (1995) (citations and internal quotation marks omitted).

“*Stare decisis* is not an inexorable command[, however]; rather it ‘is a principle of policy and not a mechanical

² The majority describes three views espoused by the parties and amici, giving substantially more attention to the one that is consistent with the result the majority reaches. Careful review of the materials submitted to the court, and of the many academic and legal writings regarding *Cybor* since its issuance, show that a substantial portion of the legal community to have considered the issue believes *Cybor* was wrongly decided and flies in the face of Rule 52 of the Federal Rules of Civil Procedure.

formula of adherence to the latest decision.” *Payne*, 501 U.S. at 828 (quoting *Helvering v. Hallock*, 309 U.S. 106, 119 (1940)). Its force varies from case to case, moreover—carrying the most weight where reliance interests are at stake, but the least weight where the departure from precedent would not change substantive rights and would “not affect the way in which parties order their affairs.” *Pearson v. Callahan*, 555 U.S. 223, 233 (2009); *see also Payne*, 501 U.S. at 828. “Revisiting precedent is particularly appropriate where . . . a departure would not upset expectations . . . and experience has pointed up the precedent’s shortcomings.” *Pearson*, 555 U.S. at 233. The Supreme Court has noted that departing from precedent especially is appropriate “when governing decisions . . . are badly reasoned.” *Payne*, 501 U.S. at 827 (“[W]hen governing decisions are unworkable or are badly reasoned, ‘this Court has never felt constrained to follow precedent.’” (quoting *Smith v. Allwright*, 321 U.S. 649, 665 (1944))); *see also Helvering*, 309 U.S. at 119 (cautioning against blindly applying stare decisis when adhering to precedent would “involve[] collision with a prior doctrine more embracing in its scope, intrinsically sounder, and verified by experience”).

Consistent with this Supreme Court guidance, we have explained that stare decisis does not stand in the way of abrogating our case law—even entire bodies of it—in at least three circumstances: when we conclude our case law (1) was wrongly decided, *see, e.g., Wilson v. United States*, 917 F.2d 529, 536 (Fed. Cir. 1990) (en banc); (2) is at odds with congressional directives, *see, e.g., Akamai Technologies, Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1318 (Fed. Cir. 2012) (en banc); or (3) has had negative consequences, *see, e.g., Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1288 (Fed. Cir. 2011) (en banc). With these principles in mind, this court has not hesitated to revisit its own precedent. *See, e.g.,*

Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc., 576 F.3d 1348 (Fed. Cir. 2009) (en banc); *In re Seagate Tech., LLC*, 497 F.3d 1360 (Fed. Cir. 2007) (en banc); *Fisher v. United States*, 402 F.3d 1167 (Fed. Cir. 2005) (en banc); *Knorr–Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*, 383 F.3d 1337 (Fed. Cir. 2004) (en banc). Indeed, we have said that it is “[t]he province and obligation of the en banc court . . . to review the current validity of challenged prior decisions.” *Robert Bosch, LLC v. Pylon Mfg. Corp.*, 719 F.3d 1305, 1316 (Fed. Cir. 2013) (en banc) (quoting *United States v. Aguon*, 851 F.2d 1158, 1167 n.5 (9th Cir. 1988) (en banc)). And, we have made clear that this includes overturning precedent set by this court en banc when appropriate. See *Nobelpharma USA, Inc. v. Implant Innovations, Inc.*, 141 F.3d 1059, 1068 (Fed. Cir. 1998) (overruling *Atari, Inc. v. JS & A Grp., Inc.*, 747 F.2d 1422 (Fed. Cir. 1984) (en banc), by “chang[ing] our precedent and hold[ing] that whether conduct in procuring or enforcing a patent is sufficient to strip a patentee of its immunity from the antitrust laws is to be decided as a question of Federal Circuit law”).

Thus, both Supreme Court case law and our own teach that it is in cases like this one that stare decisis is weakest.

III.

Reversing *Cybor* will not “upset settled expectations on anyone’s part.” *Pearson*, 555 U.S. at 233. The one thing clear about *Cybor* is that no one in the legal community—except perhaps the members of the majority—has come to believe that either the wisdom or vitality of *Cybor* is settled. Whether one urges the retention of the holding in *Cybor* (as do some amici) or urges its revision (as do the parties, the Patent and Trademark Office, and the rest of the amici), it is hard to dispute that tumult has surrounded *Cybor* since it was decided. During its short

life, *Cybor* repeatedly has been criticized as poorly reasoned. That criticism has come from members of this court, from district court judges, and from academics and practitioners across the country.

Our internal debate over *Cybor* has been heated, and has not abated over time. There were several ardent detractors from the rule announced in *Cybor* at the time it was announced. See, e.g., *Cybor*, 138 F.3d at 1478, 1480 (Newman, J., additional views) (“By continuing the fiction that there are no facts to be found in claim interpretations, we confound rather than ease the litigation process. . . . However, the Supreme Court has relieved us of adherence to this fiction, by its recognition of the factual component of claim interpretation.”), *id.* at 1463 (Mayer, C.J., concurring in the judgment) (stating that the *Cybor* majority opinion “profoundly misapprehends” the Supreme Court’s decision in *Markman*); *id.* 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). Even some of the less vocal critics who concurred in the result in *Cybor* expressed hesitation regarding the wisdom of either the rule established or the legitimacy of its underpinnings. See *id.* at 1463 (Plager, J., concurring) (“Whether this approach to patent litigation will in the long run prove beneficial remains to be seen.”); see also *id.* at 1463 (Bryson, J., concurring) (“[W]e approach the legal issue of claim construction recognizing that with respect to certain aspects of the task, the district court may be better situated than we are, and that as to those aspects we should be cautious about substituting our judgment for that of the district court.”).

Since *Cybor*, our internal debate has continued. In *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), the order granting rehearing en banc asked the

parties to address whether it is “appropriate for this court to afford any deference to any aspects of trial court claim construction rulings.” *Id.* at 1328. Despite receiving considerable input from the parties and amici, the *Philips* majority, without explanation, “decided not to address that issue at this time.” *Id.* In dissent, however, Judge Mayer levied a pointed criticism of *Cybor*, (1) discussing “the absurdity[] of this court’s persistence in adhering to the falsehood that claim construction is a matter of law devoid of any factual component,” (2) stating that, “[i]n our quest to elevate our importance, we have . . . disregarded our role as an appellate court . . . undermin[ing] the legitimacy of the process, if not the integrity of the institution,” and (3) observing that “we are obligated by Rule 52(a) to review the factual findings of the district court that underlie the determination of claim construction for clear error.” *Id.* at 1330, 1332 (Mayer, J., dissenting).

We have revisited the question multiple times since then: (1) in 2006 in *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 469 F.3d 1039 (Fed. Cir. 2006); (2) in 2011 in *Retractable Technologies, Inc. v. Becton, Dickinson & Co.*, 659 F.3d 1369 (Fed. Cir. 2011); and (3) even as recently as a year ago in *Highmark, Inc. v. Allcare Health Management Systems, Inc.*, 701 F.3d 1351 (Fed. Cir. 2012), where questions of claim construction were not even at issue. *See, e.g., Amgen*, 469 F.3d at 1043 (Newman, J., dissenting from denial of reh’g en banc) (“The Federal Circuit’s position that patent interpretation requires more rigorous appellate review than other fact/law issues has not withstood the test of experience. It is time to reopen the question and to rethink, *en banc*, the optimum approach to accuracy, consistency, and predictability in the resolution of patent disputes”); *id.* at 1046 n.3 (Moore, J., dissenting from denial of reh’g en banc) (highlighting the problems *Cybor* has caused for district courts attempting

to construe patent claims); *id.* at 1045 (Gajarsa, Linn, & Dyk, JJ., concurring in denial of reh’g en banc) (noting that the concurrence “should not be read as . . . an unqualified endorsement of the en banc decision in *Cybor*”); *Retractable Techs.*, 659 F.3d at 1373 (Moore, J., dissenting from denial of reh’g en banc) (“The Supreme Court held that claim construction was a ‘mongrel practice.’ As such it is clearly a mixed question of law and fact and deference should be given to the factual parts. . . . [W]e must acknowledge the factual underpinnings of this analysis and there should be deference.” (citation omitted)); *Highmark*, 701 F.3d at 1362 (Moore, J., dissenting from denial of reh’g en banc) (citing to *Cybor* and stressing that “[w]e need to avoid the temptation to label everything legal and usurp the province of the fact finder with our manufactured *de novo* review”).

Notably, not once during this internal dialogue over the rule promulgated in *Cybor* did anyone contend that stare decisis alone should put an end to our debate. Two members of the current majority have been among the harshest critics of *Cybor*—contending on multiple, and even recent, occasions that it was poorly reasoned, impractical, and should be reversed. A third conceded that *Cybor*’s rule may be too broad and perhaps should not apply where, as here, the trial court was forced to resort to extrinsic evidence to assess the meaning of claim terms. In none of their discussions of *Cybor* was concern regarding stare decisis raised. It certainly was never exalted to the hard stop on further consideration of *Cybor*’s merits that the majority now finds it to be.

And, the debate over *Cybor* has not all been internal to our court. The external debate has been both consistent and widespread. *See, e.g.,* Amicus Br. of United States, *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, No. 11–1154, 2012 WL 5940288, at *20–21 (U.S. Nov. 28,

2012) (setting out the Solicitor General’s observation that (1) “some claim-construction decisions will depend on a district court’s resolution of factual questions,” (2) this court’s “decision in *Cybor* does not identify any reason that such factual findings should not be given the deference ordinarily required by Federal Rule of Civil procedure 52(a),” and (3) “appellate courts routinely defer to factual findings made by district courts and juries”). District judges have opposed de novo review, describing it as ill conceived and illogical. *See, e.g., Amgen, Inc. v Hoechst Marion Roussel, Inc.*, 339 F. Supp. 2d 202, 226 n.23 (D. Mass. 2004)) (describing the “conundrum” our claim construction jurisprudence has created by “discouraging resort to extrinsic evidence while at the same time urging courts to begin claim construction by considering the plain and customary meaning of a term *as understood by one skilled in the art*”); Judge James F. Holderman & Halley Guren, *The Patent Litigation Predicament in the United States*, Univ. Ill. J.L., Tech. & Pol’y 1, 6–7, 14–15 (2007) (noting that “claim construction involves many of what one would consider to be factual determinations,” stressing that the Supreme Court in *Markman* “said nothing . . . about the de novo standard of review,” and calling for a more deferential review of district court claim constructions); *The Honorable William G. Young & Professor R. Carl Moy, Panel Discussion, High Technology Law in the Twenty-First Century: Second Annual High Technology Law Conference*, 21 Suffolk Transnat’l L. Rev. 13, 19 (1997) (statements of the Honorable William G. Young).

As have practitioners. *See, e.g.,* Frederick L. Whitmer, *Claim Construction in Patent Cases: A Question of Law?*, 2 No. 6 Landslide 14, 16–17 (2010) (criticizing our court’s interpretation of the Supreme Court’s guidance in *Markman* and calling for recognition of “the constituent factual component of claim construction

decision making”); Donald R. Dunner & Howard A. Kwon, *Cybor Corp v. FAS Technologies: The Final Say on Appellate Review of Claim Construction?*, 80 J. Pat. & Trademark Off. Soc’y 481, 492 (1998) (“[N]otwithstanding its decision that claim construction was an issue for the judge and not the jury, the Court in *Markman II* seemed to consider the issue a mixed question of law and fact—a characterization that would resist straightforward application of the de novo standard.”); Luke L. Dauchot, *The Federal Circuit’s De Novo Review of Patent Claim Construction: A Need for a More Balanced Approach*, 18 Am. Bar Ass’n Sec. Pub. I.P.L. 1, 4 (1999) (“A proper approach recognizes that patent claim interpretation is ‘a mongrel practice’ and delegates the fact-finding process to trial courts . . .”).

Academics have been particularly harsh in their criticism of *Cybor* and have suggested that we reverse it. See, e.g., J. Jonas Anderson & Peter S. Menell, *Informal Deference: An Historical, Empirical, and Normative Analysis of Patent Claim Construction*, 108 Nw. U. L. Rev. (forthcoming), Sept. 9, 2013 manuscript at *57–59 (arguing that *Cybor* “misapprehends” Supreme Court precedent, “deprive[s] the district court of critical evidence bearing on claim meaning,” and “undermines the appellate process” by leaving “[t]he parties, the public, and the appellate court” with an “anemic record—typically limited to the intrinsic evidence”); Eileen M. Herlihy, *Appellate Review of Patent Claim Construction: Should the Federal Circuit Be Its Own Lexicographer in Matters Related to the Seventh Amendment?*, 15 Mich. Telecomm. Tech. L. Rev. 469, 515 (2009) (“A de novo standard of review . . . runs contrary to the repeated and consistent word choices made by the Court indicating that the Court considers claim construction to be a mixed issue of fact and law.”); Kimberly A. Moore, *Markman Eight Years Later: Is Claim Construction More Predictable?*, 9 Lewis & Clark L. Rev.

231, 231 (2005) (observing the “concern among the bench and bar that the Federal Circuit’s de novo review of district court claim construction decisions . . . ha[s] caused considerable unpredictability”); John R. Lane & Christine A. Pepe, *Living Before, Through, and With Markman: Claim Construction as a Matter of Law*, 1 Buff. Intell. Prop. L.J. 59, 71 (2001) (“In *Markman II*, the Supreme Court did concede that there are factual underpinnings to claim construction determinations, raising the logical question of whether de novo review is the appropriate standard.” (footnote omitted)).

In short, the only expectation about *Cybor* that appears “settled” is the expectation that one day this court might recognize that *Cybor* is inconsistent with Supreme Court precedent, the Federal Rules of Civil Procedure, and the practical realities involved in the claim construction process, and would reverse it.

Parties do not make claim drafting decisions based on the standard of review we apply to trial court claim constructions. Nor could they given the panel-dependent nature of our own determinations. See Donald R. Dunner, *A Retrospective of the Federal Circuit’s First 25 Years*, 17 Fed. Cir. B.J. 127, 130 (2007) (noting that many believe “that Federal Circuit predictability is not what it should be and that its decisions are often panel-dependent and result-oriented”); R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. Pa. L. Rev. 1105, 1112 (2004) (“Our findings . . . indicate that claim construction at the Federal Circuit is panel dependent.”). It is difficult to accept the proposition that our claim construction jurisprudence is a measure against which litigants make important business or innovation decisions. Claim construction disputes are very fact specific—patents do not follow a formulaic structure, or even contain oft repeated

language. Claims are drafted, redrafted, and amended in ways intended to reflect and capture particular inventions in a particular field, to avoid very specific prior art, and to respond to the rejections of the unique patent examiner involved in the application process. It is rare that any two claims we review contain the same phrasing, and even more rare that the context in which the phrasing is used would not alter the meaning of even almost identical words.³ *Compare Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342–43 (Fed. Cir. 2008) (finding that, as a general rule, the words “an” or “a” in a patent claim carry the meaning of “one or more”), *with TiVo, Inc. v. EchoStar Commc’ns Corp.*, 516 F.3d 1290, 1303 (Fed. Cir. 2008) (finding that “whether ‘a’ or ‘an’ is treated as singular or plural depends heavily on the context of its use” and concluding that “claims and written description in this case make clear that the singular meaning applies”). Combining the uniqueness of each claim term to be reviewed with the variations in rationale employed by the divergent members of this court, provides little practical guidance regarding how any claim construction dispute might be resolved in this forum—and certainly not the uniform reliability of outcome with which the majority now credits our jurisprudence in this area.

The fact that we have been engaging in a flawed practice for too long does not, alone, create the type of settled expectations *stare decisis* is meant to protect. Because

³ There are, of course, some common patent terms that have been given universal meanings, or been characterized as open-ended, rather than exclusive. These are terms like “comprising,” “consisting of,” and “consisting essentially of.” The meanings of most of these transitional terms were common to the patent drafting art well before this Circuit was formed. And, litigants and district courts are well aware of these conventions.

settled expectations will not be disrupted and no substantive rights will be reordered, *stare decisis* simply does not stand in the way of this court addressing the merits of *Cybor* and acknowledging that the rule of law pronounced therein is an incorrect one.

IV.

It is also clear that *stare decisis* does not stand in the way of overturning *Cybor* because *Cybor* is predicated on a mischaracterization of the Supreme Court's guidance in *Markman* and ignores the claim construction process we have ordered district courts to employ. In short, it need not be followed because its premises are wrong. *See Wilson*, 917 F.2d at 536 (overruling precedent that misconstrued congressional intent).

As noted above, *Cybor* misapprehends the Supreme Court's decision in *Markman*, ignoring numerous instances where the Court acknowledged that claim construction can present factual questions. The Supreme Court did not base its conclusion on the fact that a patent is a legal instrument whose construction presents a *pure* question of law. If it had, there would have been no need for the Court to conduct such a thorough analysis of whether the Seventh Amendment required a jury to resolve issues of claim construction. That question would have needed no discussion if claim construction were purely an issue of law because juries have never been tasked with resolving purely legal questions. *See Markman*, 517 U.S. at 376–84; *see also Cybor*, 138 F.3d at 1464 (Mayer, C.J., concurring in the judgment) (“Though it could have done so easily, the Court chose not to accept our formulation of claim construction: as a pure question of law to be decided *de novo* in all cases on appeal. If it had, there would have been no need for its extensive exegesis about the Seventh Amendment and whether juries must construe claims that have evidentiary underpinnings or whether the

importance of uniformity is best served by giving these evidentiary questions of meaning to a judge.” (footnote omitted)).

While *Cybor* dismissed *Markman*’s discussion of the factual aspects of claim construction as mere “prefatory comments,” 138 F.3d at 1455, and insisted that, under *Markman*, claim construction is a completely legal exercise subject to de novo review, *id.* at 1456, that conclusion does not flow from *Markman*. There, the Supreme Court not only acknowledged claim construction’s factual aspects, it also said nothing to suggest that a de novo standard of review would be appropriate. See *Retractable Techs.*, 659 F.3d at 1373 (Moore, J., dissenting from denial of reh’g en banc) (“The Supreme Court held that claim construction was a ‘mongrel practice.’ As such it is clearly a mixed question of law and fact and deference should be given to the factual parts.” (citation omitted)). *Markman*’s holding was limited to the Court’s determination “that the construction of a patent, including terms of art within its claims, is exclusively within the province of the court.” *Markman*, 517 U.S. at 372. There are many circumstances in which trial judges act as triers of both fact and law; in all of those, deference to the factual components of that decision-making is undoubtedly due. “Stating that something is better decided by the judge is not the same as saying it is a matter of law.” *Highmark*, 701 F.3d at 1362 (Moore, J., dissenting from denial of reh’g en banc).⁴ And even saying something is a matter of

⁴ This mistake is one repeated in some of the amicus briefs that support retention of *Cybor*, stating that *Cybor* must be retained so as to avoid having to submit claim construction issues to the jury. See Amicus Br. of Microsoft Corp. at 4–5; Amicus Br. of Intellectual Prop. Inst. of William Mitchell Coll. of Law at 10–12. But, the Supreme Court made clear in *Markman* that it had

law does not answer the question of the standard of review an appellate court should apply. *See Pierce v. Underwood*, 487 U.S. 552, 560, 562 (1988) (observing that, “[i]n some cases, such as the present one, the attorney’s fee determination will involve a judgment ultimately based on a purely legal issue governing the litigation,” but concluding that “sound judicial administration counsels[] deferential review of a district court’s decision regarding attorney’s fees” despite its legal character).

Those amici who find great significance in the Supreme Court’s citation to *Miller v. Fenton*, 474 U.S. 104 (1985), in *Markman* miss the mark. That citation does not, as those amici claim, decide the fact/law question or the question of the appropriate level of appellate review of claim construction determinations. In *Miller*, the Supreme Court concluded that the ultimate question of whether a confession was sufficiently voluntary to comport with due process, while a mixed question of fact and law, was subject to independent federal review. As the Court noted in *Markman*, it had concluded in *Miller* that,

institutional efficiency reasons for taking claim construction away from the jury, unhampered as it was by Seventh Amendment concerns; the decision to give claim construction to trial judges did not turn on a fact/law distinction. *See Markman*, 517 U.S. at 384 n.10 (“Because we conclude that our precedent supports classifying the question as one for the court, we need not decide either the extent to which the Seventh Amendment can be said to have crystallized a law/fact distinction . . . or whether post-1791 precedent classifying an issue as one of fact would trigger the protections of the Seventh Amendment if (unlike this case) there were no more specific reason for decision.” (citations omitted)). Because the views of these amici are based on this legally flawed premise, undue reliance on them is misplaced.

where a question “falls somewhere between a pristine legal standard and a simple historical fact,” the conclusion as to which judicial actor is best positioned to decide a question at times turns on the sound administration of justice, rather than a pure fact/law distinction. 517 U.S. at 388. Though, in *Miller*, the Court decided that the sound administration of justice supported the conclusion that the ultimate constitutional question of whether a confession was voluntary should be reserved for federal, rather than state, courts, *Miller* says nothing about the standard of review one federal tribunal should apply to the inquiries of another, or how the sound administration of justice would divvy up the responsibility of claim construction as between the trial and appellate courts.

In fact, in *Miller* itself, the Court concluded that a presumption of correctness still must be afforded to all “subsidiary factual questions” decided by the state courts. 474 U.S. at 112. And, the Court was careful to explain that its determination of what the sound administration of justice called for vis-à-vis the federal and state courts was reached in the absence of congressional directives to the contrary.

In *Markman*, the Supreme Court said that judicial efficiencies supported allocation of claim construction determinations to the court rather than the jury. It did not say that “subsidiary factual determinations” made by trial courts ceased to be subject to the deference congressionally mandated by the Federal Rules of Civil Procedure, however. And, it did not say that it was *this court* and *only this court* to which the question should be allocated. Indeed, in *Cooter & Gell v. Hartmarx Corp.*, 496 U.S. 384 (1990), decided five years after *Markman*, the Court addressed the question of how the sound administration of justice can impact the standard of review of questions that involve both factual and legal components.

There, while the Court acknowledged that some purely legal inquiries are involved in determinations pursuant to Rule 11 of the Federal Rules of Civil Procedure, it found that the entire determination must be reviewed by the courts of appeals under an abuse of discretion standard. *Id.* at 403–04. Returning to the same type of inquiry employed in *Miller*, the Supreme Court explained that where, as in a Rule 11 inquiry, the line between fact and law is difficult to divine and the trier of fact needs flexibility to decide unique facts that resist generalization, it is the trial judge who is the judicial actor best suited to decide the question. *Id.* In such instances, the Court found that the sound administration of justice to which it harkened in *Miller* and again in *Markman* mandated a fully deferential standard of review.

It is notable that at least one Supreme Court Justice on the Court when *Markman* was decided believes that, if *Markman* can be said to have decided the standard of review to be applied to claim construction determinations, it decided that question very differently than we did in *Cybor* and than we continue to do today. In *Gasperini v. Center for Humanities, Inc.*, 518 U.S. 415 (1996), dissenting from the judgment there, Justice Stevens described the Court’s decision in *Markman* as one of three that term in which courts of appeals were “assigned . . . the task of independently reviewing similarly mixed questions of law and fact,” and described the nature of that review as one in which appellate courts are required “to construe all record inferences in favor of the factfinder’s decision and then to determine whether, on the facts found below, the legal standard has been met.” *Id.* at 442–43 (Stevens, J., dissenting).

Markman’s citation to *Miller*, accordingly, lends no support to the notion that *Markman* somehow dictated the result in *Cybor*. It only helped explain why the court,

rather than the jury, was chosen as the appropriate decision maker. *Cybor* was not compelled by the Supreme Court's guidance; as explained in section V below, it is actually a wide departure from it.

Cybor also ignores the realities of the claim construction process. As our en banc court in *Phillips* observed:

[B]ecause extrinsic evidence can help educate the court regarding the field of the invention and can help the court determine what a person of ordinary skill in the art would understand claim terms to mean, it is permissible for the district court in its sound discretion to admit and use such evidence. In *exercising that discretion*, and in *weighing all the evidence bearing on claim construction*, the court should keep in mind the flaws inherent in each type of evidence and *assess that evidence accordingly*.

415 F.3d at 1319 (emphases added). *Cybor* cannot be squared with this court's own well-respected description of the very claim construction process to which it purports to apply.

The majority concedes that claims are to be interpreted from the perspective of one of skill in the art at the time of the invention unless it appears from the surrounding record—the specification and prosecution history—that the patentee acted as his own lexicographer to provide a contrary meaning. Maj. Op. at 32 (citing *Phillips*, 415 F.3d at 1314). It concludes, however, that all we need to put ourselves into the shoes of a skilled artisan are the patent documents and, perhaps (though not necessarily), some explanation regarding the technology at issue and a dictionary or treatise. It believes we do not need to hear from experts regarding the state of the known science or art at the time of the invention, the commonly understood

meaning, if any, of the particular terms or phrases employed, the level of education and skill one reading such a patent would have, or whether there are particular treatises or dictionaries to which a skilled artisan would have turned at the time. *See id.* at 22. And, it believes that the conclusions it gleans from the patent documents, including the entirety of the prosecution history, expert descriptions of the technology, and dictionaries are all legal conclusions; that no finding made by any judicial officer in the process of claim construction constitutes a subsidiary factual one. *See id.* at 22–23.

The majority justifies these conclusions by analogizing the claim construction process to the interpretation of statutes, where courts routinely consider contemporaneous dictionaries or even the testimony of historians to help determine the meaning of words and phrases therein. *See id.* The analogy is not a sound one, however.

Statutes are duly enacted laws of broad applicability. Their interpretation by an appellate court is binding on all who would be impacted by that statute in that circuit, whether parties to the original action or not. They are drafted by those with congressional authority to enact such laws and are to be given a meaning common to all. Patents are drafted *ex parte*, are revised in a closed-door examination process, their terms are, as noted before, unique to the invention at issue, and are assertable only against individual infringers in private actions. The two are simply not of the same ilk. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 998 n.8 (Fed. Cir. 1995) (Mayer, J., concurring in the judgment) (“Patents cannot be baby statutes . . .”); *Amgen*, 469 F.3d at 1040–41 (Michel, C.J., dissenting from denial of reh’g en banc) (observing that, in statutory interpretation, a judge construes terms from the perspective of a skilled legal artisan looking at the words only, not from the perspec-

tive of a different individual—one skilled in the relevant field of technology in light of the intrinsic and extrinsic record).

The parties agree that there were disputed factual questions in this case that required examination of extrinsic evidence. In the proceedings before the district court and again on appeal, the parties disputed whether the claim term “voltage source means” should be treated as a means-plus-function limitation under 35 U.S.C. § 112, ¶ 6. *Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 498 F. App’x 986, 989–90 (Fed. Cir. 2013). The use of the word “means” triggers the presumption that the limitation is a means-plus-function term, but that presumption “may be rebutted if the claim itself recites sufficient structure for performing the function.” *Id.* at 990. The parties focused on whether “voltage source means” denoted a particular structure to those of skill in the art (i.e., whether the term had a specific meaning used by those of skill in the art to describe a defined structure or specific class of structures). *See id.* If skilled artisans understood “voltage source means” to refer to a defined structure, it would not be considered a means-plus-function limitation. *Id.* The specification and prosecution history, however, did not resolve the question. Thus, it became necessary and appropriate to look outside the intrinsic record and to consider the testimony of Lighting Ballast’s expert, Dr. Roberts. *See id.*; *see also Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1341 (Fed. Cir. 2011) (“When determining whether a claim term recites sufficient structure, we examine whether it has an understood meaning in the art.”). When situations like this arise, it is appropriate—and sometimes necessary—to make findings based on extrinsic evidence that relate to the meaning of a disputed term. Resolution of these fact-intensive disputes is an area

where district courts' expertise deserves the deference that Rule 52(a)(6) requires.

Both parties, the PTO, and most amici agree that there are factual components to claim construction. Even among the amici that favor retaining *Cybor*'s de novo review of all aspects of claim construction, most readily identified factual questions that arise during claim construction. Microsoft Corp., for instance, advocated retaining *Cybor*, but nonetheless listed numerous factual questions that it concedes could arise during claim construction and would require the court to:

determin[e] the field[s] of the invention and the knowledge of a person having ordinary skill in the art; determin[e] the art-accepted meanings of terms used in an issued claim and also used in the specification and/or prior art; determin[e] the date of the invention and/or the effective filing date of the patent application; determin[e] whether a proposed construction would exclude all embodiments in the specification or, conversely, whether any embodiment supports the construed issued claim; identifying explicit or implicit definitions in the specification; [and] determin[e] the disclosure of cited prior art references (which are part of the 'intrinsic evidence' for claim construction) asserted as invalidating prior art and/or distinguished in the prosecution history.

Amicus Br. at 4–5. Similarly, the Austin Intellectual Property Law Association observed that “district courts are charged with taking evidence of specialized meanings in . . . patent interpretation.” Amicus Br. at 8. Likewise, the brief filed by Cisco Systems, Inc. et al. acknowledged that a case could arise where “a question of meaning peculiar to a trade or profession [could] turn[] on the resolution of contested questions of historical fact.”

Amicus Br. at 24–26 (citation and internal quotation marks omitted).

In sum, it is hard to understand how either the majority in *Cybor* or the majority here can dispute that claim construction sometimes requires a district court to resolve contested factual issues. *Cybor* is, thus, based on a faulty premise—that claim construction is a purely legal exercise. This reveals deep flaws in *Cybor*’s reasoning, justifying a departure from it. See *Payne*, 501 U.S. at 827 (permitting departure from decisions that prove “unworkable or are badly reasoned”).

V.

Stare decisis also must give way because, by refusing to acknowledge the factual component of claim construction, *Cybor* contravenes the clear directives of Federal Rule of Civil Procedure 52(a)(6). When a district court makes findings of fact—as claim construction sometimes requires—Rule 52(a)(6) provides clear instructions to this court: “Findings of fact, whether based on oral or other evidence, must not be set aside unless clearly erroneous” The rule is clear on its face, and decisions interpreting it show that it makes no exception with regard to fact-finding in the claim construction context. As the Supreme Court has observed, “Rule 52(a) broadly requires that findings of fact not be set aside unless clearly erroneous. It does not make exceptions or purport to exclude certain categories of factual findings from the obligation of a court of appeals to accept a district court’s findings unless clearly erroneous.” *Pullman–Standard v. Swint*, 456 U.S. 273, 287 (1982); see also *Bose Corp. v. Consumers Union of U.S., Inc.*, 466 U.S. 485, 498 (1984) (“We have repeatedly held that . . . Rule [52(a)] means what it says.”). Thus, there is direct conflict between *Cybor*—which expressly calls for de novo review of “any allegedly fact-based questions relating to claim construc-

tion,” 138 F.3d at 1456—and Rule 52(a)(6)—which requires deference to *all* fact-findings that are not clearly erroneous. See Amicus Br. of United States at 9–13 (noting that “[a]ppellate courts must defer to a trial court’s factual findings under Rule 52(a)” and that, “[g]iven the clear command of Rule 52(a), no justification exists to treat claim construction any differently”).

The law governing obviousness confirms Rule 52(a)’s broad applicability in patent disputes. Obviousness presents a question of law subject to de novo review, but it involves a number of subsidiary fact-findings. As the Supreme Court observed:

While the ultimate question of patent validity is one of law, . . . the § 103 condition . . . lends itself to several basic factual inquiries. Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent are resolved.

Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17 (1966). According to the Court, “[t]his description of the obviousness inquiry makes it clear that whether or not the ultimate question of obviousness is a question of fact subject to Rule 52(a), the subsidiary determinations of the District Court, at the least, ought to be subject to the Rule.” *Dennison Mfg. Co. v. Panduit Corp.*, 475 U.S. 809, 811 (1986); see also *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1569 (Fed. Cir. 1987) (“Rule 52(a) is applicable to all findings on the four inquiries listed in *Graham*: scope and content of prior art; differences between prior art and claimed invention; level of skill; and objective evidence . . .”). Importantly, one of the key fact questions in an obviousness inquiry is what a prior art reference teaches—often, what is claimed and described

in a previously issued patent. *See Graham*, 383 U.S. at 17. And, all findings regarding the scope and content of the prior art are subject to clear error review. *See Panduit*, 810 F.2d at 1569. That we trust jurors to define the scope of patent claims in this context, but are less than comfortable allowing trial judges to do the same when considering the asserted patent claims is at least anomalous. *Cybor* is thus out of step with our other jurisprudence that faithfully applies Rule 52(a) in patent cases.

This conflict between *Cybor* and the Federal Rules of Civil Procedure means our case law must fall. As this court has observed,

The Federal Rules of Civil Procedure were promulgated by the Supreme Court pursuant to statutory authority and were implicitly adopted by Congress after transmission to Congress in their proposed form. *See* 28 U.S.C. §§ 2071–2074. In light of this statutory promulgation scheme, the Supreme Court has held that the Federal Rules of Civil Procedure are deemed to have “the force [and effect] of a federal statute.”

Bright v. United States, 603 F.3d 1273, 1279 (Fed. Cir. 2010) (alteration in original) (quoting *Sibbach v. Wilson & Co.*, 312 U.S. 1, 13 (1941)). Our cases dealing with the application of stare decisis where statutory interpretation is at issue thus provide useful guidance.

We often have held that stare decisis does not prevent our court from overturning its precedent when we conclude our prior jurisprudence runs contrary to what we believe are a statute’s directives. *See, e.g., Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1306 (Fed. Cir. 2012) (en banc) (overruling multiple decisions of this court where “we held that in order for a party to be liable for induced infringement, some other single entity must

be liable for direct infringement”); *Wilson v. United States*, 917 F.2d 529, 536 (Fed. Cir. 1990) (en banc) (overturning our earlier decision in *Ulmet v. United States*, 822 F.2d 1079 (Fed. Cir. 1987), saying: “We have revisited the legislative history of [10 U.S.C.] § 1163(d) in this case. Our examination has brought to light that the legislative history of the sanctuary provision demands a different result from that reached in *Ulmet*.”); *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009) (en banc) (overruling prior case law because we believed that case law did not properly interpret 35 U.S.C. § 271(f)). In all of these instances, we concluded that stare decisis did not provide a basis for adhering to precedent that ran counter to the dictates of a statute, as properly interpreted.

We should bring our case law in line with the directives of Rule 52(a)(6), as we are required to do, and as we have done with respect to numerous statutory commands in the past. See Amicus Br. of United States at 9–13 (urging the court to overturn *Cybor* because it runs counter to Rule 52(a)’s clear commands); Amicus Br. of Am. Bar Ass’n at 12–13 (same); Amicus Br. of Prof. Peter Menell at 17–20 (In light of Rule 52(a)’s commands, “the Federal Circuit must defer to trial judges’ factual determinations in claim construction rulings.”); Amicus Br. of Am. Intellectual Prop. Law Ass’n at 4–6, 6 n.6 (“There is no reason for the review of patent claim construction, where the trial court makes constituent determinations of fact, to be any different from review of other ultimate issues of law that have factual underpinnings.”); Amicus Br. of Fed. Cir. Bar Ass’n at 7; Amicus Br. of Intellectual Prop. Owners Ass’n at 7 (stressing that Rule 52(a) requires deference to district courts’ findings of claim construction facts); Amicus Br. of Conn. Intellectual Prop. Law Ass’n at 12 (faulting *Cybor* for “say[ing] that patent cases have their very own Fed. R. Civ. P. 52(a)(6),” even

though there is “no legitimate reason to treat patent cases differently from other cases”); Amicus Br. of Fed’n Internationale Des Conseils en Propriete Intellectuelle at 12 (noting that de novo review of findings of claim construction facts “violates Federal Rule of Civil Procedure 52(a)(6)”).

The majority discounts concerns about the dictates of Rule 52(a)(6) by citing the Supreme Court’s statement in *Pullman–Standard v. Swint* that Rule 52(a) does not provide a clear formula for distinguishing fact from law. Maj. Op. at 34 (citing *Pullman–Standard*, 456 U.S. at 288). As the Court made clear in *Pullman–Standard* itself when reversing the Fifth Circuit’s refusal to give deference to a trial court’s factual inquiry, the fact that our inquiry might be a difficult one does not excuse the failure to undertake it. *See Pullman–Standard*, 456 U.S. at 288–90. Indeed, the Supreme Court has on numerous occasions charged the courts of appeals with drawing distinctions between subsidiary or “historical facts” and the ultimate legal conclusion regarding the import of those facts, and with adjusting their standard of review accordingly. *See Cooper Indus., Inc. v. Leatherman Tool Grp., Inc.*, 532 U.S. 424, 440 n.14 (2001) (“While we have determined that the Court of Appeals must review the District Court’s application of the *Gore* test [set out in *BMW of North America, Inc. v. Gore*, 517 U.S. 559 (1996),] *de novo*, it of course remains true that the Court of Appeals should defer to the District Court’s findings of fact unless they are clearly erroneous.”); *Ornelas v. United States*, 517 U.S. 690, 699 (1996) (holding that “determinations of reasonable suspicion and probable cause should be reviewed *de novo* on appeal” but “hasten[ing] to point out that a reviewing court should take care both to review findings of historical fact only for clear error and to give due weight to inferences drawn from those facts by resident judges and local law enforcement officers”); *Thomp-*

son v. Keohane, 516 U.S. 99, 110–12 (1995) (concluding that there are two distinct inquiries—one purely factual and another a mixed question—involved in “[t]he ultimate ‘in custody’ determination for *Miranda* purposes,” with deference to findings on all factual components due). As the PTO explains, “Congress gave no indication in the patent laws that it intended to displace the fundamental principle of appellate review for clear error.” Amicus Br. of United States at 12.⁵

VI.

The “undesired consequences” flowing from this court’s claim construction jurisprudence also justify departing from the law set out in *Cybor*. *Cybor*, 138 F.3d at 1481 (Newman, J., additional views); *see also Pearson*, 555 U.S. at 233 (stating that revisiting case law is “par-

⁵ The scope of this court’s obligation to abide by the dictates of Rule 52(a)(6) is currently before the Supreme Court. In *Highmark Inc. v. Allcare Health Management Systems, Inc.*, 687 F.3d 1300 (Fed. Cir. 2012), *cert. granted*, 134 S. Ct. 48 (Oct. 1, 2013) (No. 12–1163), the question presented is “[w]hether a district court’s exceptional-case finding under 35 U.S.C. § 285, based on its judgment that a suit is objectively baseless, is entitled to deference.” Petition for Writ of Certiorari, *Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.*, 2013 WL 1209137, at *i (U.S. Mar. 25, 2013) (No. 12–1163). The petitioner asserts that deference must be given to all aspects of a district court’s § 285 determinations because, among other reasons, there are subsidiary findings of fact which Rule 52(a)(6) demands be reviewed for clear error. *See id.* at *19–20. If the Supreme Court premises its holding in *Highmark* entirely or even partially on the dictates of Rule 52(a)(6), such a ruling would make clinging to *Cybor* for no reason other than a resistance to change completely untenable.

ticularly appropriate” where experience has revealed its shortcomings). By refusing to acknowledge the factual component of claim construction, *Cybor* has made the claim construction process less transparent, accurate, predictable, and efficient, thereby imposing high “social costs.” See Anderson & Menell, *supra*, at *60–61; Whitmer, *supra*, at 16 (lamenting the “high reversal rate” with respect to claim construction that is the “consequence of the *Cybor* uncertainty principle”); Lane & Pepe, *supra*, at 71–73 (examining the uncertainty that results from de novo review).

A.

The primary interests furthered by stare decisis—a doctrine rooted in policy—support departing from *Cybor*, not adhering to it. See *Helvering*, 309 U.S. at 119 (observing that stare decisis “is a principle of policy”). Preserving the stability of the law and protecting the public’s ability to “rel[y] on judicial decisions” are the central interests furthered by stare decisis. *Payne*, 501 U.S. at 827. By withholding deference to district courts’ findings of claim construction facts, however, the interests of stability and predictability are disserved. See *Highmark*, 701 F.3d at 1362 (Moore, J., dissenting from denial of reh’g en banc) (“When we convert factual issues, or mixed questions of law and fact, into legal ones for our *de novo* review, we undermine the uniformity and predictability goals this court was designed to advance.”); see also Amicus Br. of Prof. Peter Menell at 15 (observing that “[t]he[] effects [of de novo review of claim construction determinations] continue to cast doubt on the predictability of patent litigation, discourage settlements following claim construction trial, delay resolution of patent disputes, and run up the overall costs of patent litigation”). Indeed, our resistance to changing *Cybor* is directly contrary to the purposes of Rule 52(a)(6): to promote stability in the

judicial system by (1) avoiding undermining the legitimacy of district courts and (2) preventing unnecessary appeals by discouraging appellate retrial of factual issues. *See* Fed. R. Civ. P. 52 advisory committee's note (1985).

Under the *Cybor* regime, a district court can construe a claim term, and an entire trial can follow premised on that construction. When the district court's judgment is appealed, however, we review every aspect of its claim construction de novo, leaving us largely free to reinterpret claims—both upsetting parties' expectations and undoing a tremendous amount of parties' and district courts' work in the process. *See Cybor*, 138 F.3d at 1476 (Rader, J., dissenting from the pronouncements on claim interpretation in the en banc opinion) (“To get a certain claim interpretation, parties must go past the district court's *Markman I* proceeding, past the entirety of discovery, past the entire trial on the merits, past post-trial motions, past briefing and argument to the Federal Circuit—indeed past every step in the entire course of federal litigation, except Supreme Court review.”). Once here, moreover, as noted earlier, “[c]ommentators have observed that claim construction appeals are ‘panel dependent’ which leads to frustrating and unpredictable results for both the litigants and the trial court.” *Retractable Techs.*, 659 F.3d at 1370 (Moore, J., dissenting from denial of reh'g en banc) (citations omitted). And, while the majority says that it is “no longer true” that there is a high reversal rate with respect to claim constructions by district courts, Majority Opinion at 34, that is not what trial judges, litigants, and academics contend. As Professor Peter Menell says in his amicus brief before this court: “Although we document a significant drop in the claim construction reversal rate since the *Phillips* decision, there still remains a high reversal rate compared to other

areas of federal practice.”⁶ Amicus Br. at 15; *see also* Amicus Br. of Ass’n of Bar of N.Y. (“The high reversal rate of the district court claim construction, documented in numerous studies, is universally acknowledged. It is not an overstatement to conclude that the reversal rate has had a detrimental effect on the parties, the court, and the credibility of the patent system generally.” (footnote omitted)). Departing from *Cybor* and reviewing claim construction findings for clear error would introduce *greater stability* and less expense, and would afford the appropriate respect for district courts’ factual determinations—respect that Rule 52(a)(6) demands. As a consequence, this case presents an instance where overturning this court’s precedent will lead to *greater* stability and predictability, not *less*.

B.

Refusing to acknowledge that claim construction has a factual component effectively “deprives th[is] court, and the parties, of the accumulated progress and experience of the trial, including the findings of the trial judge, and leaves us on appeal with an expurgated record and generally inferior basis of decision.” *Cybor*, 138 F.3d at 1481 (Newman, J., additional views). By affording zero deference to any aspect of a district court’s claim construction,

⁶ The majority is incorrect that “every amicus brief that complains about high reversal rates relies on data that are seven to ten or more years old.” Maj. Op. at 34. Professor Menell’s amicus brief to this court describes his recent research with Professor Jonas Anderson, which reveals that de novo review of claim construction continues to contribute to “alarming levels of appellate reversals.” Amicus Br. at 13–14; *see also* Anderson & Menell, *supra*, at *6 (examining this court’s claim construction jurisprudence from 2000 through 2011).

we ignore the reality that we lack the tools that district courts have available to resolve factual disputes fairly and accurately. As Judge Rader observed in dissenting in part in *Cybor*,

the trial judge enjoys a potentially superior position to engage in claim interpretation. For the complex case where the claim language and specification do not summarily dispose of claim construction issues, the trial court has tools to acquire and evaluate evidence that this court lacks. Trial judges can spend hundreds of hours reading and rereading all kinds of source material, receiving tutorials on technology from leading scientists, formally questioning technical experts and testing their understanding against that of various experts, examining on site the operation of the principles of the claimed invention, and deliberating over the meaning of the claim language. If district judges are not satisfied with the proofs proffered by the parties, they are not bound to a prepared record but may compel additional presentations or even employ their own court-appointed expert.

138 F.3d at 1478.

The Supreme Court has explained that “[t]he trial judge’s major role is the determination of fact, and with experience in fulfilling that role comes expertise.” *Anderson v. Bessemer City*, 470 U.S. 564, 574 (1985). The Court also reminds us that “deferential review of mixed questions of law and fact is warranted when it appears that the district court is better positioned than the appellate court to decide the issue in question or that probing appellate scrutiny will not contribute to the clarity of legal doctrine.” *Salve Regina Coll. v. Russell*, 499 U.S. 225, 233 (1991); see also *Cooter*, 496 U.S. at 403 (calling

for deference to the decisions of “the judicial actor . . . better positioned than another to decide the issue in question” (alteration in original) (quoting *Miller*, 474 U.S. at 114)). District courts should be encouraged to resolve the factual questions bearing on claim construction and to develop a thorough record setting out their findings and the evidence supporting their conclusions. When they do, we overstep the bounds of our duty under Rule 52(a)(6) by duplicating, or ignoring, rather than deferring to that process. *Anderson*, 470 U.S. at 573; cf. *Highmark*, 701 F.3d at 1365 (Reyna, J., dissenting) (urging that we “respect[] the enduring balance between the trial judge and the appellate panel in carrying out their distinct responsibilities” by applying clear error review to trial court findings).

The concurrence downplays the extent to which we usurp the trial court’s function by adherence to *Cybor* by arguing both that claim construction rarely involves credibility determinations and that we are “quite as able” as district courts—or “sometimes better” able—to review the relevant documents in the record, such as the patent’s prosecution history. Concurrence at 3. And the majority echoes these themes, contending that claim construction does not present questions of fact because it does not turn on credibility determinations and that leaving these questions to de novo review by our court assures greater correctness of result. The Supreme Court has made clear, however, that this narrow view of the trial court’s fact-finding function is an inaccurate one. The district court’s expertise is “not limited to the superiority of the trial judge’s position to make determinations of credibility,” but instead extends to all factual determinations. *Anderson*, 470 U.S. at 574. These determinations include findings “based on physical or documentary evidence or inference from other facts.” *Id.* The Supreme Court has explained that Rule 52(a) requires deference to these

findings, as well as those that turn on witness credibility. *Id.* Indeed, the Court has rejected the concurrence's reasoning with respect to Rule 52(a)(6), not only in its case law, but also through its rulemaking. In 1985, Rule 52(a) was amended, in part, because

[s]ome courts of appeal have stated that when a trial court's findings do not rest on demeanor evidence and evaluation of a witness'[s] credibility, there is no reason to defer to the trial court's findings and the appellate court more readily can find them to be clearly erroneous. *See, e.g., Marcum v. United States*, 621 F.2d 142, 144–45 (5th Cir. 1980). Others go further, holding that appellate review may be had without application of the “clearly erroneous” test since the appellate court is in as good a position as the trial court to review a purely documentary record.

Fed. R. Civ. P. 52 advisory committee's note (1985) (collecting cases). The Advisory Committee continued:

The principal argument advanced in favor of a more searching appellate review of findings by the district court based solely on documentary evidence is that the rationale of Rule 52(a) does not apply when the findings do not rest on the trial court's assessment of credibility of the witnesses but on an evaluation of documentary proof and the drawing of inferences from it, thus eliminating the need for any special deference to the trial court's findings. These considerations are outweighed by the public interest in the stability and judicial economy that would be promoted by recognizing that the trial court, not the appellate tribunal, should be the finder of facts. To permit courts of appeals to share more actively in the fact-finding function would tend to undermine the

legitimacy of the district courts in the eyes of litigants, multiply appeals by encouraging appellate retrial of some factual issues, and needlessly reallocate judicial authority.

Id.

District court judges are provided training in all aspects of their duties, including claim construction in patent litigation under *Phillips*. They then employ that training repeatedly over the years, analyzing patents, their written descriptions, and prosecution histories, receiving testimony from inventors and experts, listening to tutorials on the relevant science, and probing counsel during hearings that sometimes last days. In this case, the trial court conducted a three-day evidentiary hearing. Because *Cybor* allows us to ignore these fact-intensive inquiries by its insistence on de novo review, it not only undermines the authority of district judges, it compromises the decision-making process on appeal. Our court is given free rein to interpret claim terms, but lacks the resources to do it right. See Dunner & Kwon, *supra*, at 497 (noting that “the Federal Circuit, by function and design, is ill-equipped to engage in the evidentiary evaluations relevant to claim construction that are the staple of district court judges”).

C.

Cybor also creates greater incentives for losing parties to appeal, thus discouraging settlements and increasing the length and cost of litigation. As Judge Rader observed in dissenting from the court’s pronouncements on claim interpretation in *Cybor*, “unfettered review authority” undercuts certainty and discourages settlement. 138 F.3d at 1475. It is not until “the parties know the meaning of the claims [that] they can predict with some reliability the likelihood of a favorable judgment, factor in the economics

of infringement, and arrive at a settlement to save the costs of litigation.” *Id.* But under *Cybor*, “the trial court’s early claim interpretation provides no early certainty at all, but only opens the bidding. The meaning of a claim term is not certain (and the parties are not prepared to settle) until nearly the last step of the process—decision by the Court of Appeals for the Federal Circuit.” *Id.* at 1476; *see also* Amicus Br. of Prof. Peter Menell at 3 (lamenting that *Cybor* “discourage[s] settlements following claim construction and trial, delay[s] resolution of patent disputes, and run[s] up the overall costs of patent litigation”); Amicus Br. of Am. Intellectual Prop. Ass’n at 8 (“*Cybor* thus fosters wasteful, expensive litigation and discourages timely settlement. That result unnecessarily ties up courts and increases expense to litigants.”); Amicus Br. of Am. Bar Ass’n at 10–11 (observing that *Cybor* discourages settlement); Amicus Br. of Ass’n of Bar of N.Y. at 15–16 (same); Amicus Br. of Conn. Intellectual Prop. L. Ass’n at 13 (“Even when a case goes to trial, the losing party has very little incentive to settle disputes, since there is a significant chance that at least some material part of the trial court’s decision will be reversed on appeal.”); Amicus Br. of Fed’n Internationale Des Conseils en Propriete Intellectuelle at 11 (same); Amicus Br. of Paul R. Michel at 4 (same).⁷

⁷ The majority cites data showing that a declining percentage of cases proceed to trial or are appealed. *See* Maj. Op. at 35–36. According to the majority, these trends show that “the *Cybor* review procedure assists in resolving litigation before full trial or extensive discovery,” thereby facilitating settlement and reducing litigation costs. *Id.* at 36. Nothing suggests that these declines can be attributed to this court’s de novo review of claim construction, however. Declining trial and appeal rates can easily be attributable to other factors, including (1)

D.

Contrary to the majority's claim, moreover, *Cybor* does not unqualifiedly promote uniformity or predictability of outcome in the patent system. As noted previously, the claim construction issues presented in patent cases are mostly fact and case specific. A claim construction decision in a given case will provide little guidance on the words used in different patents. Their resolution will do no more than declare the boundaries of a patent as between the parties in suit. *See Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 329–30 (1971) (observing that “[s]ome litigants—those who never appeared in a prior action—may not be collaterally estopped without litigating [an] issue”). And, there is no guarantee that panels of this court will construe like claims in a like manner, even when in the same patent. *Compare*

the availability of parallel proceedings at the PTO and ITC where decisions in those tribunals might moot further activity before the district courts, or even prevent district court judgments from becoming final, (2) increased resort to and availability of sophisticated alternative dispute resolution mechanisms, including the increased involvement of retired district court judges with patent litigation experience in such procedures, (3) improved case management practices by trial judges who have become more practiced at handling patent litigation and who now often have the benefit of detailed local rules governing the same, (4) the fact that, once this court provided clear guidance regarding claim construction in *Phillips*, trial courts were given a better roadmap for undertaking the exercise of claim construction, and (5) the increased experience and expertise of trial courts that itself may be fostering settlements. The majority reads far too much regarding the wisdom of *Cybor* into these general statistics.

CVI/Beta Ventures, Inc. v. Custom Optical Frames, Inc., 92 F.3d 1203 (Fed. Cir. 1996) (affirming the determination that “greater than 3% elasticity” did not require “complete recovery after a strain of greater than 3%” within the meaning of claim 1 of U.S. Patent No. 4,896,955), *with CVI/Beta Ventures, Inc. v. Tura LP*, 112 F.3d 1146, 1158 (Fed. Cir. 1997) (construing “greater than 3% elasticity” in claim 1 of U.S. Patent No. 4,896,955 as requiring complete recovery after being subjected to stress); *see also* Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 Harv. J.L. & Tech. 1, 18–21 (2001) (observing that “[t]he *CVI/Beta* cases create doubt about whether the Federal Circuit serves as a test of ‘accuracy’ of district court construction”).

In fact, our case law expressly holds that we are not bound by claim constructions we adopt on appeal from the grant or denial of a preliminary injunction when considering the *same* claims again upon the final judgment.⁸ *See*

⁸ It is curious that, when reserving the right to change our own claim constructions at later points in a single case, we justify that position on grounds that the greater fulsomeness of the record at the final judgment stage better informs our claim construction analysis. *Transonic Sys., Inc. v. Non-Invasive Med. Techs. Corp.*, 75 F. App’x 765, 774 (Fed. Cir. 2003) (“A district court therefore is at liberty to change the construction of a claim term as the record in a case evolves after a preliminary injunction appeal.”); *Jack Guttman, Inc. v. Kopykake Enters., Inc.*, 302 F.3d 1352, 1361 (Fed. Cir. 2002) (“District courts may engage in a rolling claim construction, in which the court revisits and alters its interpretation of the terms as its understanding of the technology evolves. This is particularly true where the issues involved are complex, either due to the nature of the technology or

Glaxo Grp. Ltd. v. Apotex, Inc., 376 F.3d 1339, 1346 (Fed. Cir. 2004) (“An appellate court’s preliminary injunction opinion has no conclusive bearing at the trial on the merits and is not binding on a subsequent panel.” (citing *Univ. of Tex. v. Camenisch*, 451 U.S. 390, 395 (1981)); *Transonic Sys., Inc. v. Non-Invasive Med. Techs. Corp.*, 75 F. App’x 765, 774 (Fed. Cir. 2003) (“We have consistently followed the Supreme Court’s precedent by holding that a claim construction reached during an appeal from a grant of a preliminary injunction is tentative and is not binding on the district court in subsequent proceedings.”). We, thus, do not even have an internal structure that unerringly assures uniformity.

To the limited extent uniformity might be served by de novo review, moreover, any marginal benefit from that increased uniformity is more than offset by the decreased certainty caused by making district court decisions more vulnerable to reversal. See Kelly Casey Mullally, *Legal (Un)Certainty, Legal Process, and Patent Law*, 43 Loy. L.A. L. Rev. 1109, 1149–50 (2010) (examining how de novo review increases one kind of certainty at the cost of “mak[ing] district court judgments less certain” by “increas[ing] the probability that the lower court’s decision will be reversed”). And, as the PTO points out, “even if some marginal decrease occurred in this Court’s ability to ensure perfect uniformity in the interpretation of patent claims, that decrease would not provide a reason to ignore the clear mandate of Rule 52(a).” Amicus Br. of United States at 12.

because the meaning of the claims is unclear from the intrinsic evidence.” (citation omitted)). If the trial record is effectively meaningless to the claim construction inquiry as we now hold, what more could we know about claim construction later in a case than we knew when we first visited it?

We are not alone in the belief that *Cybor* does little to promote the uniformity with which the majority is now concerned. Indeed, “[i]n the government’s view, recalibrating the standard of review to reflect the trial court’s ‘institutional advantage’ in considering certain types of evidence in the claim-construction process, while preserving this Court’s ability to give *de novo* review to the trial court’s ultimate construction, would promote ‘interjurisdictional uniformity.’” Amicus Br. of United States at 12–13 (quoting *Markman*, 517 U.S. at 391). As several amici explain, there are numerous other ways to improve uniformity of claim construction scope and interpretation, including improvements to the patent prosecution process, use of post-grant review procedures, or even consolidation of cases addressing the same patents before a single trial judge through the already well-established multidistrict litigation practice. *See, e.g.*, Amicus Br. of Prof. Peter Menell at 22–24. And, as the American Bar Association notes, it is more likely that uniformity will be served by greater reliance on the claim construction decisions of the skilled fact finders—the district court judges—than by adhering to *Cybor*’s *de novo* standard of review. Amicus Br. at 13.

Our case law teaches that *stare decisis* is not an obstacle when our law causes such negative consequences. The recent decision by our en banc court in *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276 (Fed. Cir. 2011) (en banc), is a clear example of this court’s willingness to change our law where, as here, experience proves our past decisions were unwise. In *Therasense*, this court made drastic changes to the law with the aim of making claims of inequitable conduct more difficult to prove. *See id.* at 1290–91. In explaining why we did so, we noted that, over the years, we had “embraced . . . reduced standards for intent and materiality to foster full disclosure to the PTO.” *Id.* at 1288. But, “[t]his focus on en-

couraging disclosure had numerous unforeseen and unintended consequences.” *Id.* Given the negative effects of our precedent, we wholly abrogated our decisions in *Orthopedic Equipment Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376 (Fed. Cir. 1983), *Driscoll v. Cebalo*, 731 F.2d 878 (Fed. Cir. 1984), and *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350 (Fed. Cir. 1984), and required a greater showing to demonstrate inequitable conduct. Even the dissent in *Therasense* had no problem with abrogating our body of case law on inequitable conduct, disputing only what new test should be adopted in its stead. *See Therasense*, 649 F.3d at 1302 (Bryson, J., dissenting) (urging adoption of a new standard, but one that differed from that proposed by the majority).

Likewise, in *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*, 383 F.3d 1337 (Fed. Cir. 2004) (en banc), we overturned case law because we felt it had problematic effects. There, we observed that “implementation of [our prior] precedent has resulted in inappropriate burdens on the attorney-client relationship.” 383 F.3d at 1343. Looking at the full range of consequences flowing from our case law, we concluded that “the conceptual underpinnings of this precedent have significantly diminished in force.” *Id.* at 1344 (citation and internal quotation marks omitted). So, we changed the law. *Id.* (“The adverse inference that an opinion was or would have been unfavorable, flowing from the infringer’s failure to obtain or produce an exculpatory opinion of counsel, is no longer warranted. Precedent authorizing such inference is overruled.”).

Thus, we have made clear that stare decisis does not prevent our court from changing our law where, as here, there are compelling reasons to do so.

VII.

In short, while *Markman* instructs us that claim construction presents a question for the court to resolve, it also instructs us that claim construction is a “mongrel practice,” presenting a mixed question of law and fact. While we agree that the *ultimate question* of claim meaning should remain subject to de novo review, claim construction often requires district courts to resolve underlying issues of disputed fact. These include, among others: whether a claim term had a specialized meaning among those skilled in the art at the time; what texts, including treatises and dictionaries, demonstrate about how a person of skill in the art would interpret a claim term, and which contemporaneous tests are most relevant; whether to credit one expert’s testimony over another’s regarding issues bearing on claim construction; who qualifies as a person of ordinary skill in the art; what is the relevant field of invention; what prior art is relevant; what a person of skill in the art would glean from that prior art; and what inferences can be fairly drawn from the prosecution history, including whether a disclaimer of claim scope has occurred.⁹ When a district court makes fact-findings needed to resolve claim construction dis-

⁹ Notably, a district court’s factual determinations, even those about the historical meaning of a claim term, *will not* resolve the legal question of what construction is to be afforded a claim term. This court would be free to conclude that a claim term has a different meaning than its historically common one based on the four corners of the patent itself, or on application of legal doctrines applicable to claim construction such as claim differentiation, meanings we have subscribed to common terms (e.g., “comprising”), or the concept of an inventor being permitted to act as his own lexicographer.

putes, Rule 52(a) requires us to defer to those findings unless they are clearly erroneous.

Cybor ignores both the realities of claim construction and Rule 52(a)'s demands. It is time we acknowledge the limitations of our appellate function and our obligation to comply with the Federal Rules of Civil Procedure, and give trial judges the deference their expertise and efforts deserve. *Stare decisis* is no bar to our doing so. Nor is concern about the fact that employing the proper standard of review in this context will not always be easy. For all these reasons, I respectfully dissent.