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Post-*Teva*: When Will the Federal Circuit Embrace the Deferential Standard of Review for Patent Claim Construction?

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Introduction

In January 2015, the U.S. Supreme Court in *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*[1] ("*Teva*") overturned twenty years of precedent when it held that patent claim construction was no longer exclusively a question of law reviewed de novo.[2] The standard of review defines how much deference an appellate court must accord a trial court's decision on appeal.[3] How much deference appellate courts afford trial judge decisions is best described us-

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[1] 135 S. Ct. 831 (2015).

[2] *Id.* at 835–40.

[3] *See* Amanda Peters, *The Meaning, Measure, and Misuse of Standards of Review*, 13 Lewis & Clark L. Rev. 233, 235 (2009).

ing a law/fact paradigm.[4] On appeal, appellate courts give no deference to questions of law,[5] while trial court findings involving issues of fact are given some deference.[6] Prior to *Teva*, the U.S. Court of Appeals for the Federal Circuit ("Federal Circuit") identified patent claim construction as exclusively a question of law, giving it no deference on appeal.[7] In *Teva,* the Court split the baby and held that when claim construction is based solely on intrinsic evidence, it is a question of law reviewed de novo (or without deference).[8] But, when the trial court makes findings of fact based on extrinsic evidence, Federal Rule of Civil Procedure 52(a)[9] ("Rule 52(a)") requires a deferential standard of review.[10] In other words, an appellate court must not overturn a trial judge's factual findings based on extrinsic evidence, unless they are clearly erroneous.[11] Even though the Supreme Court has changed the standard of review for claim construction, few cases have come out differently under the new standard. The Federal Circuit continues to decide cases as if *Teva* never happened. Post-*Teva,* the Federal Circuit must give deference to trial court

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[4] *See* Miller v. Fenton, 474 U.S. 104, 114 (1985) ("[T]he fact/law distinction at times has turned on a determination that . . . one judicial actor is better positioned than another to decide the issue in question."). *See generally* Kelly Kunsch, *Standard of Review (State and Federal): A Primer*, 18 Seattle U. L. Rev. 11 (1994).

[5] *See* Salve Regina Coll. v. Russell, 499 U.S. 225, 231 (1991).

[6] *See* Fed. R. Civ. P. 52(a)(6). The Rule reads, in pertinent part: "(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." *Id.*

[7] Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) ("[A]s a purely legal question, we review claim construction *de novo* on appeal including any allegedly fact-based questions relating to claim construction."); *see also* Markman v. Westview Instruments, Inc. (*Markman I*), 52 F.3d 967, 970–71 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996) ("[W]e conclude that the interpretation and construction of patent claims . . . is a matter of law exclusively for the court.").

[8] Teva Pharms. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 841 ("[W]hen the district court reviews only evidence intrinsic to the patent[,] . . . the judge's determination will amount solely to a determination of law [reviewed de novo].").

[9] Fed. R. Civ. P. 52(a) reads, in pertinent part:

> (1) ***In General.*** In an action tried on the facts without a jury or with an advisory jury, the court *must* find the facts specially and state its conclusions of law separately. The findings and conclusions may be stated on the record after the close of the evidence or may appear in an opinion or a memorandum of decision filed by the court. Judgment must be entered under Rule 58.

Id. (emphasis added).

[10] *Teva*, 135 S. Ct. at 841.

[11] *Id.* (citing Fed. R. Civ. P. 52(a)(6)).

findings of fact as required under Rule 52(a).[12] Thus, in cases where the district court reviews extrinsic evidence but does not make findings of fact based on that extrinsic evidence, the Federal Circuit must remand to the district court to make those findings.[13] It is inappropriate for the Federal Circuit to substitute its claim construction for the district court's and not remand for findings of fact.

Before *Teva*, treating patent claim construction as a question of law had the effect of eliminating Rule 52(a)'s relevance. Because evidence related to claim construction was a question of law, trial courts were not required to make findings of fact when evaluating the evidence.[14] Resultantly, cases that were pending before *Teva* generally do not have robust records containing trial court findings of fact.[15] Thus, it is often unclear what the trial court relied on in making its claim construction determination. Because claim construction received no deference on appeal, trial courts, accordingly, did not always document their findings.[16]

This Article highlights that the standard of review, as well as whether a question is one of law or fact, is ultimately determined by policy considerations.[17] In other words, the inquiry does not end when a question is labeled as one of law or fact.[18] Instead, what should command our attention is the reason why courts label an issue as legal or factual.[19] Labeling claim construction as solely a question of law has elevated the Federal Circuit, a reviewing court, and displaced the traditional factfinders, the trial courts. Part I addresses the policy considerations underlying the Federal Circuit's standard of review in claim construction and its interest in asserting control over claim construction determinations. Part II discusses and analyzes the Supreme Court's policy considerations and how they differ from the Federal Circuit's. Part III highlights the Federal Circuit's post-*Teva* recalcitrance in embracing the new standard of review, exposing the court's failure to follow Rule 52(a) as required by the Supreme Court.

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[12] *Id.*

[13] FED. R. CIV. P. 52(a)(1).

[14] *See* Mark A. Lemley, *Why do Juries Decide if Patents are Valid?*, 99 VA. L. REV. 1673, 1725 (2013).

[15] *See id.* ("[S]ince *Markman*, very few infringement issues present genuine factual disputes . . . .").

[16] *See Markman I*, 52 F.3d 967, 979–81 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

[17] *See* Michael R. Bosse, *Standards of Review: The Meaning of Words*, 49 ME. L. REV. 367, 373 (1997).

[18] *See* Thompson v. Keohane, 516 U.S. 99, 110–11 (1995) ("[T]he proper characterization of a question as one of fact or law is sometimes slippery."); Bosse, *supra* note 17, at 373.

[19] Bosse, *supra* note 17, at 373.

I. What are the Policy Considerations the Federal Circuit Reviewed When it Determined Claim Construction is a Question of Law?

In 1995, the Federal Circuit in *Markman v. Westview Instruments, Inc.*[20] ("*Markman I*") held that courts have the power and the obligation to construe patent claims as a matter of law, settling all prior case law inconsistencies.[21] Previously, the Federal Circuit's conflicting precedent fluctuated between treating claim construction as a legal question and treating the issues as a mixed question based on underlying facts.[22] At one time, the Federal Circuit recognized that, although claim construction was ultimately a question of law,[23] it might "require the fact-finder to resolve certain factual issues such as what occurred during the prosecution history."[24] In *McGill Inc. v. John Zink Co.*,[25] the Federal Circuit noted that, when a claim term is disputed and "extrinsic evidence is needed to explain the meaning, construction of the claims could be left to a jury."[26]

There were other cases that left the jury free to resolve a conflict when the intrinsic evidence was ambiguous. For example, in *Tol-O-Matic, Inc. v. Proma Produkt-Und Marketing Gesellschaft*,[27] the specification supported the interpretation the patentee put forth, but the prosecution history supported the alleged infringer's differing interpretation.[28] Because the intrinsic evidence was ambiguous, the parties utilized expert witness testimony to support their respective arguments.[29] The trial court allowed the jury to weigh this testimony.[30]

On appeal, the question of infringement rested on the claim interpretation. The Federal Circuit reviewed "whether a reasonable jury could have

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[20] 52 F.3d 967 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

[21] *Id.* at 979.

[22] *Compare* Tol-O-Matic, Inc. v. Proma Produkt-Und Mktg. Gesellschaft, 945 F.2d 1546, 1549–50 (Fed. Cir. 1991), *and* Tandon Corp. v. U.S. Int'l Trade Comm'n, 831 F.2d 1017, 1021 (Fed. Cir. 1987), *with* Tillotson, Ltd. v. Walbro Corp., 831 F.2d 1033, 1037 (Fed. Cir. 1987), Howes v. Med. Components, Inc., 814 F.2d 638, 643 (Fed. Cir. 1987), *and* Moeller v. Ionetics, Inc., 794 F.2d 653, 656 (Fed. Cir. 1986).

[23] McGill Inc. v. John Zink Co., 736 F.2d 666, 671 (Fed. Cir. 1984) ("[A] determination of the scope of the claims, is a question of law.").

[24] Arachnid Inc. v. Medalist Mktg. Corp., 972 F.2d 1300, 1302 (Fed. Cir. 1992).

[25] 736 F.2d 666 (Fed. Cir. 1984).

[26] *Id.* at 672 (citing Envirotech Corp. v. Al George, Inc., 730 F.2d 753 (Fed. Cir. 1984)); *see also* Lemley, *supra* note 14, at 1719–22.

[27] 945 F.2d 1546 (Fed. Cir. 1991).

[28] *Id.* at 1550–51.

[29] *Id.* at 1551.

[30] *See id.* at 1552.

interpreted the claim in a way that supports its [noninfringement] finding."[31] After reviewing the specification, the prosecution history, and analyzing the conflicting experts on both sides, the Federal Circuit used a very deferential review standard. The court affirmed the judgment finding that a reasonable jury could have reached the verdict of noninfringement.[32] Interestingly, the Federal Circuit, at this time, welcomed the jury as a factfinder to assist in claim construction.[33] But, by 1995, this affinity began to splinter the court.

A. Getting to Markman I

In *Markman I*, the court discussed policy reasons for abandoning its precedent and holding that claim interpretation is a legal matter for the court.[34] First, the Federal Circuit noted the Supreme Court had "repeatedly held that the construction of a patent claim is a matter of law exclusively for the court."[35] Second, the Federal Circuit rejected the notion that a jury should construe patent claims. In particular, the court stated that "[i]t has long been and continues to be a fundamental principle of American law that the construction of a written evidence is exclusively with the court."[36] The court also noted that a patent is a fully integrated written instrument and, thus, is uniquely situated to have its meaning determined by a court as a matter of law, just like other written instruments.[37] In particular, the court emphasized that it is important that a "judge, trained in the law"[38] provides the public notice function of accurately describing the scope of a patentee's rights, giving them "legal effect."[39] Here, the court makes a policy decision that a judge is better at providing a true and consistent claim construction than a

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[31] *Id.*

[32] *Id.*

[33] *Id.*

[34] *Markman I*, 52 F.3d 967, 978–81 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

[35] *Id.* at 977 (citing Singer Mfg. Co. v. Cramer, 192 U.S. 265, 275 (1904); Mkt. St. Cable Ry. Co. v. Rowley, 155 U.S. 621, 625 (1895); Coupe v. Royer, 155 U.S. 565, 579–80 (1895); Heald v. Rice, 104 U.S. 737, 749 (1881); Bischoff v. Wethered, 76 U.S. (9 Wall.) 812, 816 (1869); Winans v. N.Y. & Erie R.R. Co., 62 U.S. (21 How.) 88, 100 (1858); Winans v. Denmead, 56 U.S. (15 How.) 330, 338 (1853); Silsby v. Foote, 55 U.S. (14 How.) 218, 225 (1852); Hogg v. Emerson, 47 U.S. (6 How.) 437, 484 (1848)).

[36] *Id.* at 978 (internal quotation marks omitted) (quoting Levy v. Gadsby, 7 U.S. (3 Cranch) 180, 186 (1805)).

[37] *Id.*

[38] *Id.* at 979.

[39] *Id.* at 978–79 (quoting Senmed, Inc. v. Richard-Allan Med. Indus., Inc., 888 F.2d 815, 819 n.8. (Fed. Cir. 1989) ("They may understand what is the scope of the patent owner's rights by obtaining the patent and prosecution history—the undisputed public record.") (internal quotation marks omitted)).

jury, which benefits both the public and the patentee.[40] Thus, the court holds claim construction is a matter of law and is reviewed de novo, or without deference, on appeal.[41] It is important to note, however, that making claim interpretation exclusively a legal question is a backdoor way of limiting the role of the jury in patent cases.[42]

To further the argument that claim construction is a legal question, the court minimized the importance of extrinsic evidence in claim construction.[43] The more claim construction can be resolved without looking externally for evidence to interpret a claim's meaning, the more it resembles a question of law.[44] Consequently, the court maintained that extrinsic evidence merely aids a court's understanding of scientific principles in order to help the court find the true meaning of claims.[45] In other words, extrinsic evidence is needed because the court may be unfamiliar with terminology used in a patent, but it is not needed for resolving claim terminology.[46] According to the Federal Circuit, claim construction is "still based upon the patent and prosecution history[,]" and not on findings of fact.[47]

One wrinkle in declaring claim construction a question of law in *Markman I* is discussed in footnote 8 of the case.[48] In cases where a patent claim is a means-plus-function claim under 35 U.S.C. § 112,[49] it is necessary to analyze equivalents to determine the literal scope of the patent claim.[50] "A finding of

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[40] *See id.* at 979.

[41] *Id.*

[42] *See id.* at 999 (Newman, J., dissenting) ("By holding that these disputed technologic questions are matters of law, . . . previously triable to a jury as of right, will now be decided by the trial judge[.]").

[43] *Id.* at 1005–06.

[44] *Id.* at 981 (majority opinion) (holding claim construction, even when extrinsic evidence enlightens construction, is still based on prosecution history and is a matter of law subject to de novo review); *see also* Teva Pharms. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 850 (2015) (Thomas, J., dissenting) (analogizing claim construction to statutory construction where interpreting meaning involves only conclusions of law, and not subsidiary evidentiary findings).

[45] *Markman I*, 52 F.3d at 980.

[46] *Id.* at 986.

[47] *Id.* at 981.

[48] *Id.* at 977 n.8. The footnote reads:

> *Palumbo* also presented the issue of construction of means-plus-function claim limitations under 35 U.S.C. § 112, para. 6. As that issue is not before us today, we express no opinion on the issue of whether a determination of equivalents under § 112, para. 6 is a question of law or fact.

[49] 35 U.S.C. § 112(f) (2012).

[50] Al-Site Corp. v. VSI Int'l, Inc., 174 F.3d 1308, 1320 (Fed. Cir. 1999) ("[A]n equivalent under § 112, ¶ 6 informs the claim meaning for a literal infringement analysis.").

equivalence is a determination of fact."[51] This statement flies in the face of interpreting means-plus-function claims as a question of law. To avoid this contradiction, the Federal Circuit, in a footnote, expressed no opinion on whether determining equivalents is a question of law or fact and excluded that issue from the *Markman I* opinion.[52] This furthered the policy choice not to give juries input into claim construction. Plus, this meant the court did not have to acknowledge that fact questions could potentially enter into the claim construction analysis. It also demonstrates the Federal Circuit's interest in controlling the claim construction determination.

Both concurring and dissenting opinions discussed competing policy concerns.[53] The minority opinions likened patent claim construction to contract interpretation, as analyzing triable issues of fact.[54] The majority disputed this analogy because patents are integrated documents[55] and, unlike in a contract, extrinsic evidence cannot vary patent claim terms.[56] When there are ambiguities, the question of a fact in contract cases rests on the parties's subjective intent, whereas subjective intent is irrelevant in prosecuting applications before the U.S. Patent and Trademark Office ("USPTO").[57] Instead, the inquiry is an "objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean."[58]

On the other hand, the majority found statutory interpretation, not contract interpretation, a closer analogy to claim construction, where "[t]here can be only one correct interpretation of a statute that applies to all persons."[59] Furthermore, "[s]tatutes like patents, are enforceable against the public, unlike private agreements between contracting parties[,]" and create liability for third parties.[60] Thus, according to the majority, interpreting statutes is a more "accurate model than the contractual one for purposes of determining whether constitutional protections are transgressed by assigning claim construction exclusively to judges."[61]

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[51] Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 609 (1950).

[52] *Markman I*, 52 F.3d at 977 n.8.

[53] *Id.* at 989 (Mayer, J., concurring); *id.* at 999 (Newman, J., dissenting). Primarily, the minority judges were confounded by the diminished role for the jury in claim interpretation and discussed this lesser role as a violation of the Seventh Amendment. *Id.* at 1000.

[54] *Id.* at 1000–01.

[55] *Id.* at 984–85 (majority opinion).

[56] *Id.* at 985.

[57] *Id.* ("[I]t is not unusual for there to be a significant difference between what an inventor thinks his patented invention is and what the ultimate scope of the claims is after allowance[.]").

[58] *Id.* at 986.

[59] *Id.* at 987.

[60] *Id.*

[61] *Id.*

B. Getting to Markman II

On appeal to the Supreme Court in *Markman v. Westview Instruments, Inc.*[62] ("*Markman II*"), the question was whether claim interpretation was a matter of law exclusively for the court or whether there was a Seventh Amendment right to jury trial on any disputed expert testimony on the matter.[63] In the face of insufficient historical data to determine whether there was a Seventh Amendment right to jury trial on claim construction in 1791, the Supreme Court, as a matter of policy, stated judges are better than juries in analyzing written documents.[64] The Court held that claim interpretation was a matter exclusively within the province of the court, not the jury.[65] However, the Court refrained from declaring whether the question was one of fact or law.[66] The Supreme Court uncoupled whether claim interpretation was a factual or legal question from its standard of review on appeal.[67] The policy considerations the Supreme Court contemplated are discussed in Part II of this Article.

C. Markman II and the Federal Circuit's Reading of It

The Federal Circuit took *Cybor Corp. v. FAS Technologies, Inc.*[68] en banc to address whether *Markman II* is consistent with the Federal Circuit's view that claim construction is a question of law.[69] In *Cybor*, the Federal Circuit emphatically concluded that the Supreme Court in *Markman II* left "*Markman I* as the controlling authority regarding [the Federal Circuit's] standard of review."[70] It held that claim construction is a purely legal question to be reviewed de novo on appeal and overruled any precedent to the contrary.[71] Despite the Supreme Court's decision not to address whether claim interpretation was a question of fact or law, the Federal Circuit rejected the idea that the Supreme Court left the question open.[72] Instead, the court stated there were no subsidiary fact questions involved in interpreting claims that would receive a deferential

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[62] 517 U.S. 370 (1996).

[63] *Id.* at 372.

[64] *Id.* at 388; *see* Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1463–64 (Fed. Cir. 1998) (en banc) (Mayer, C.J., concurring) (explaining that the Supreme Court "as a matter of *policy* [decided] that judges, not juries, are better able to perform [claim construction] given the complexity of evidence and documentation").

[65] *Markman II*, 517 U.S. at 390.

[66] *See id.*

[67] *See id.* at 388.

[68] 138 F.3d 1448 (Fed. Cir. 1998) (en banc).

[69] *Id.* at 1456.

[70] *Id.*

[71] *Id.* at 1454–55.

[72] *Id.*

standard of review on appeal.[73] The Federal Circuit highlighted the Supreme Court's statements that, even though credibility determinations of witnesses could play a role in claim construction, "the chance of such an occurrence is doubtful and that any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document . . . ."[74]

The concurring opinions stated that the majority had converted the Supreme Court's *Markman II* opinion and reinstated *Markman I*. Just because claim construction had become a question for the court did not necessarily mean that it was a question of law subject to de novo review, without deference to trial court fact-findings—jettisoning the Federal Rules of Civil Procedure.[75] Judge Rader, in his dissent, stressed the Federal Circuit's new pursuit of using *Markman II* to avoid giving deference to the trial judge and the trial process.[76] Note, this perspective differs from the court's original concern, which was to remove the jury from the process[77]—an issue *Markman II* laid to rest.[78] Thus, it appears that through giving no deference to trial judge findings of fact, the Federal Circuit seeks to exert control over the entire claim construction process.

D. Post-*Cybor* Distinguishing Between Intrinsic and Extrinsic Evidence

In *Phillips v. AWH Corp.*,[79] the Federal Circuit, en banc, took its first steps to emphasize the relative importance of intrinsic evidence (the patent claims, specification, and prosecution history) over extrinsic evidence (dictionaries, treatises, expert testimony) in construing claims.[80] Historically, a trial court's evaluation of intrinsic evidence to construe claims is a question of law having de novo review on appeal.[81] By diminishing the importance of extrinsic

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[73] *Id.* at 1455.

[74] *Id.* at 1455–56 (internal quotation marks omitted) (quoting *Markman II*, 517 U.S. 370, 389 (1996)).

[75] *Id.* at 1464 (Mayer, C.J., concurring) ("[T]he Court would not . . . have repealed part of the Federal Rules of Civil Procedure and Evidence without [mentioning] that district courts no longer [may] admit expert evidence[.]"); *id.* at 1481 (Rader, J., dissenting) ("It follows that the trial court's factual findings with respect to evidence relevant to claim interpretation should be treated, on appeal, like any other finding of the trial court.").

[76] *Id.* at 1473 (Rader, J., dissenting) (quoting Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 72 F.3d 857, 863 (Fed. Cir. 1995), *vacated and remanded on other grounds*, 520 U.S. 1111 (1997)).

[77] *See id.* at 1456 (majority opinion).

[78] *Markman II*, 517 U.S. at 384.

[79] 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

[80] *Id.* at 1317.

[81] *See* Teva Phams. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 836 (2015).

evidence, the Federal Circuit furthered its position that claim interpretation is a question of law, thus solidifying its control over claim construction.

Phillips v. AWH Corp. overrules *Texas Digital Systems, Inc. v. Telegenix, Inc.*,[82] which weighted objective resources like dictionary, encyclopedic, and treatise meanings (extrinsic evidence) as more reliable in interpreting claims than the specification or prosecution history.[83] The purpose for the *Texas Digital* methodology was to guard against reading limitations from the specification into the claims, which is prohibited.[84] The en banc court in *Phillips* held that restricting the role of the specification in claim construction was improper, thus overruling *Texas Digital*.[85] Further, *Phillips* adhered to *Vitronics Corp. v. Conceptronic, Inc.*[86] and its hierarchy for weighing evidence to interpret claims, starting with anointing intrinsic evidence as the most significant source for interpreting disputed claim language.[87]

In *Vitronics*, the most significant evidence for defining claim scope is to review the words in the claim.[88] Second, it is important to look to the specification, because an inventor is free to be his or her own lexicographer and define terms as inconsistent with ordinary meanings.[89] Third, the court should give weight to the prosecution history, which contains a record of what was said between the applicant and the patent examiner in the USPTO.[90] *Vitronics* had emphasized that, if ambiguities in claim language can be resolved by looking at the intrinsic evidence alone, it is improper to rely on extrinsic evidence.[91] Extrinsic evidence may be considered to assist in teasing out the meaning or scope of technical terms, but not to contradict the indisputable public record.[92] *Vitronics* also had created a hierarchy for weighing extrinsic evidence. Objective evidence like dictionaries and treatises, which are available to the public and unaltered by litigation, are preferred over expert opinion testimony, which is less reliable because it is litigation driven.[93] In *Phillips*, the court clarified that nothing in *Vitronics* is meant to create a rigid algo-

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[82] 308 F.3d 1193 (Fed. Cir. 2002).

[83] *See Phillips*, 415 F.3d at 1319.

[84] *Texas Digital*, 308 F.3d at 1204–05; *see Philips*, 415 F.3d at 1319–20 (quoting SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1340 (Fed. Cir. 2001)).

[85] *Philips*, 415 F.3d at 1320.

[86] 90 F.3d 1576 (1996).

[87] *Philips*, 415 F.3d at 1312, 1314–15; *see also Vitronics*, 90 F.3d at 1582.

[88] *Vitronics*, 90 F.3d at 1582.

[89] *Id.*

[90] *Id.*

[91] *Id.* at 1583.

[92] *Id.*

[93] *Id.* at 1585.

rithm for claim construction.[94] Instead, the point is to explain which types of evidence are more valuable than others.[95] It is a hierarchy of importance that is described, and not a recipe with a specific sequence to analyze evidence.[96]

Judge Mayer, in his dissent, saw the court's insistence that claim interpretation is a question of law as a way to elevate its importance and disregard its reviewing role as an appellate court.[97] Rather than introducing predictability to patent law, the Federal Circuit has instead created "the substitution of a black box, as it so pejoratively has been said of the jury, with the black hole of this court."[98] In particular, the dissent described the court's insistence on using the de novo standard of review to control the outcome of the case.[99] The failure to admit that there is a factual component to claim interpretation continues to drive unworkable standards litigants cannot apply.[100] Judge Mayer also referred to Federal Rule of Civil Procedure 52(a)[101] as requiring appellate courts to not set aside trial court findings of fact unless they are clearly erroneous, thus giving substantial deference to those findings.[102] He also noted that underlying factual inquiries evaluated for obviousness determinations are generally necessary to claim construction, and yet the factual underpinnings for obviousness are given deferential review.[103]

In *Lighting Ballast Control LLC v. Philips Electronics North America Corp.*,[104] the Federal Circuit sat en banc, primed to take another look at *Cybor* and its de novo standard of review stance.[105] The court agreed to reconsider whether it should overrule *Cybor* or apply deferential review to aspects of a district

[94] Philips v. AWH Corp., 415 F.3d 1301, 1324 (Fed. Cir. 2005) (en banc).

[95] *Id.*

[96] *See id.*

[97] *Id.* at 1330 (Mayer, J., dissenting).

[98] *Id.*

[99] *Id.* ("[W]e will decide cases according to whatever mode or method results in the outcome we desire, or at least allows us a seemingly plausible way out of the case.").

[100] *Id.* at 1331.

[101] *Id.* ("[F]indings of fact . . . shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge of the credibility of witnesses." (quoting Fed. R. Civ. P. 52(a))).

[102] *Id.*

[103] *Id.* at 1333 ("Before beginning claim construction, 'the scope and content of the prior art [should] be determined,' . . . to establish context. The 'differences between the prior art and the claims at issue [should] be ascertained[.]'" (first two alterations in original) (citations omitted) (quoting Graham v. John Deere Co., 383 U.S. 1, 17 (1966))).

[104] 744 F.3d 1272 (Fed. Cir. 2014) (en banc), *vacated by* 135 S. Ct. 1173 (2015), *on remand*, 790 F.3d 1329 (Fed. Cir. 2015).

[105] *Id.* at 1276.

court's claim construction.[106] Instead, for policy reasons, the court applied the principles of stare decisis,[107] thus affirming claim construction as a question of law.[108] The en banc court characterized its decision of whether to adhere to *Cybor* as being informed by fifteen years of applying the de novo standard to hundreds of cases.[109] Throughout this time, claim construction hearings, which are preliminary proceedings before trial and before discovery, were, and continue to be commonplace in patent litigation.[110] They are often subject to immediate appeal on summary judgment or injunction grounds.[111] Throughout the fifteen years, there is a measure of stability, consistency, and reliability that the judicial process will operate the way it has in the past.[112] Stare decisis "enhances predictability and efficiency in dispute resolution and legal proceedings, by enabling and fostering reliance on prior rulings."[113] The policy concerns of stability, judicial economy, reliability, consistency, and prudence permeated the majority opinion.[114] The alternative—to overturn *Cybor*—did not provide a workable replacement, as "there is no agreement on a preferable new mechanism of appellate review of claim construction[.]"[115] The court ultimately concluded that arguments for modifying the plenary standard of review did not outweigh "well-established principles and procedures."[116] Nor could the court point to a public or private benefit that would justify abandoning stare decisis.[117]

But, opponents argue that the principle of stare decisis does not justify adhering to a decision that was wrongly decided and in contravention to Supreme Court precedent and the Federal Rules of Civil Procedure.[118] Those who favor giving deference to trial court findings of fact continue to point out that *Markman II* never said claim interpretation was a question of law, but merely that it was a question exclusively for the court.[119]

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[106] *Id.* at 1277.

[107] "Stare decisis" is the "doctrine of precedent, under which a court must follow earlier judicial decisions when the same points arise again in litigation." *Stare Decisis*, Black's Law Dictionary (10th ed. 2014).

[108] *Lighting Ballast*, 744 F.3d at 1276–77.

[109] *Id.* at 1281.

[110] *See id.*

[111] *Id.*

[112] *Id.* at 1280–81.

[113] *Id.* at 1281.

[114] *See id.* at 1277, 1280–86.

[115] *Id.* at 1284.

[116] *Id.* at 1285.

[117] *Id.* at 1286.

[118] *Id.* at 1297 (O'Malley, J., dissenting).

[119] *Markman II*, 517 U.S. 390 (1996).

II. What Are the Policy Considerations That the Supreme Court Has Sought to Address?

A. Supreme Court Finds No Role for the Jury in Claim Interpretation

In *Markman II*, the Supreme Court addressed whether claim interpretation was exclusively a matter for the court and whether there was a Seventh Amendment right to jury trial for interpreting claims.[120] In order to determine whether the Seventh Amendment is applicable, the Court looks at whether the cause of action was tried at common law at the country's founding (1791), or whether the action was analogous to one that was.[121] If so, the Court then asks whether there was a right to jury trial for that cause of action in 1791.[122] Although it is clear patent infringement actions have historically been tried to a jury, the question was whether interpreting patent claims was the province of the jury in 1791.[123] After searching through history in England and the United States, the Court found claim practice was not recognized by statute until 1836, and was not a statutory requirement until 1870.[124] The Court saw the only analogue to modern claim construction was construing specifications, but there was no recognized practice of sending these interpretation issues to a jury.[125] Thus, the Supreme Court made a decision to "consider both the relative interpretive skills of judges and juries and the statutory policies that ought to be furthered by the allocation."[126] The Court held, as a matter of policy, that because judges are trained to analyze written instruments, "judges, not juries, are the better suited to find the acquired meaning of patent terms."[127] Even where credibility determinations between expert testimony are the jury's forte, the Court said that "any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document[.]"[128]

In addition, the Court emphasized the importance of uniformity in claim construction as another reason to make it an issue for the judge. According to the Court, submitting the interpretation of written instruments to juries would not serve uniformity.[129] Nevertheless, the Court did *not* hold that claim

[120] *Id.* at 370, 376.
[121] *Id.* (citing Tull v. United States, 481 U.S. 412, 417 (1987).
[122] *Id.*
[123] *Id.* at 377.
[124] *Id.* at 379.
[125] *Id.* at 379–80.
[126] *Id.* at 384.
[127] *Id.* at 388.
[128] *Id.* at 389.
[129] *Id.* at 391.

interpretation was a question of law.[130] Instead, the Court held the issue was for the judge, not the jury.[131] This distinction left the door open for an appellate court to give some deference to the trial judge's claim construction on appeal.[132] The Federal Circuit in *Cybor*, however, converted the *Markman II* holding into a complete affirmance of *Markman I*, which held claim interpretation was a question of law.[133]

B. The Supreme Court Defines the Standard of Review for Claim Interpretation

In *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, the Supreme Court finally answered the question it left open nineteen years ago in *Markman II*: whether claim interpretation was a question of law or fact, thus solidifying the standard of review on the issue.[134] The Court held that the Federal Circuit must apply a "clear error" standard of review when reviewing subsidiary matters made during claim construction, overturning the de novo review standard.[135] But, the Court split the baby, giving two separate standards of review depending on whether the claim interpretation was based solely on intrinsic evidence versus extrinsic evidence.[136]

The facts in *Teva* concern the interpretation of the term "molecular weight" in the context of a patent covering the method for manufacturing the drug Copaxone®, used to treat multiple sclerosis.[137] The claim describes a range of molecular weight for the active ingredient for the drug, copolymer-1, as having "a molecular weight of 5 to 9 kilodaltons.[138] At trial, the alleged infringer proffered there were three possible interpretations of the term "molecular weight" consequently rendering the claim term indefinite under 35 U.S.C. § 112(b).[139] The trial court reviewed extrinsic evidence from experts, concluding the claim term was sufficiently definite.[140] But, on appeal, the Federal Circuit applied de novo review and substituted its judgment for the trial court's, refusing

[130] *Id.* at 376.

[131] *Id.* at 391.

[132] *See, e.g.*, Teva Phams. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 838 (2015).

[133] *See* Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1451 (Fed. Cir. 1998) (en banc).

[134] *Teva*, 135 S. Ct. at 835.

[135] *Id.*

[136] *See id.* at 841.

[137] *Id.* at 835.

[138] *Id.* (internal quotation marks omitted).

[139] *Id.* at 835–36. § 112(b) reads, in pertinent part: "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention." 35 U.S.C. § 112(b) (2012).

[140] *Teva*, 135 S. Ct. at 836.

to defer to its findings.[141] Consequently, the patent was held invalid.[142] The Supreme Court then granted certiorari to clarify the standard of review.[143]

The Court said Federal Rule of Civil Procedure 52(a)(6)[144] applies to the Federal Circuit when reviewing district court claim construction.[145] In other words, the Federal Circuit must defer to a district court's findings of fact, unless the Federal Circuit finds them clearly erroneous, including judgments as to credibility of witnesses.[146] Making an emphatic statement, the Court said there are no exceptions to Rule 52(a)(6).[147] It applies to all fact-findings, including both subsidiary and ultimate facts.[148] It is not the role of appellate courts to decide factual issues de novo.[149] Interestingly, the Court said that, even if there were exceptions, it finds no compelling reason for one here.[150] This language is reminiscent of language the Supreme Court has used to admonish the Federal Circuit for creating legal rules for patent law that differ from those traditionally applied in law and equity across all legal disciplines.[151]

C. Supreme Court Holds Traditional Legal Principles Apply Equally to Patent Law

Over the past decade, the Supreme Court has reminded the Federal Circuit that patent law is no different. Traditional rules used for all other areas of law apply equally to patent law.[152] For example, in *eBay Inc. v. MercExchange, LLC*,[153] the Supreme Court held that the "decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, . . . [which] must be exercised consistent with traditional principles of equity[.]"[154] The Patent Act provides that "patents shall have the attributes of personal property"[155] and that courts "may grant injunctions in accordance

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[141] *Id.*

[142] *Id.*

[143] *Id.*

[144] *See* Fed. R. Civ. P. 52(a)(6) (2009).

[145] *Teva*, 135 S. Ct at 836 (citing Anderson v. Bessemer City, 470 U.S. 564, 574 (1985)).

[146] *Id.* at 836, 840; *accord* Fed. R. Civ. P. 52(a)(6).

[147] *Teva*, 135 S. Ct at 836–37 (citing Pullman-Standard v. Swint, 456 U.S. 273, 287 (1982)).

[148] *Id.* at 837.

[149] *Id.* (citing *Anderson*, 470 U.S. at 573).

[150] *Id.*

[151] *See, e.g.*, ebay, Inc. v. MercExchange, LLC, 547 U.S. 388 , 391–92 (2006).

[152] *Id.* at 394–95 (Roberts, C.J., concurring) (agreeing with the Court's holding that "the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts . . . in patent disputes no less than in other cases").

[153] 547 U.S. 388 (2006).

[154] *Id.* at 394.

[155] 35 U.S.C. § 261 (2012).

with the principles of equity[.]"[156] Thus, the Federal Circuit's "general rule [for] . . . issu[ing] permanent injunctions against patent infringement absent exceptional circumstances" violates the four-factor test traditionally used in equity to decide whether to issue permanent injunctive relief.[157] Further, such disregard for tradition upsets the standard of review for permanent injunctive relief. It is within the trial court's discretion to grant or deny permanent injunctive relief, and that decision is reviewable on appeal for abuse of discretion.[158]

In *MedImmune, Inc. v. Genentech, Inc.*,[159] the petitioner challenged the long-held Federal Circuit practice of holding that licensees in good standing have no justiciable controversy against patent licensors to challenge patent validity or noninfringement in a declaratory judgment action.[160] Historically, a patent licensee was required to breach a patent license agreement to create an actual controversy before declaratory judgment jurisdiction could attach.[161] Generally, Article III of the U.S. Constitution limits federal court jurisdiction to "Cases" and "Controversies."[162] The Declaratory Judgment Act achieves this requirement by triggering subject matter jurisdiction only for actual controversies.[163] In *MedImmune*, however, the Supreme Court overruled the Federal Circuit, holding that Article III did not require the petitioner to terminate the patent license agreement before seeking a declaratory judgment in federal court.[164] The Court followed its traditional and uniform framework to assess whether an Article III case or controversy exists, not a different patent law version of it.[165] A court must look at all of the circumstances and ensure that the controversy is "definite and concrete, touching the legal relations of

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[156] *Id.* § 283.

[157] *See eBay*, 547 U.S. at 391. The traditional four-factor test requires a plaintiff to show:

(1) that it has suffered an irreparable injury;

(2) that remedies available at law . . . are inadequate to compensate for that injury;

(3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and

(4) that the public interest would not be disserved by a permanent injunction.

Id.

[158] *Id.*

[159] 549 U.S. 118 (2007).

[160] *Id.* at 120–21.

[161] Gen-Probe Inc. v. Vysis, Inc., 359 F.3d 1376, 1382 (Fed. Cir. 2004).

[162] U.S. Const. art. III, § 2, cl. 1.

[163] *See* 28 U.S.C. § 2201(a) (2012).

[164] *MedImmune*, 549 U.S. at 137.

[165] *See id.* at 126–29.

parties having adverse legal interests[.]"[166] Further, the action must be a "real and substantial" controversy as opposed to an advisory opinion predicated on hypothetical facts.[167]

In *Teva*, the Supreme Court continued its efforts to streamline patent law jurisprudence with judicial application of the law universally in other areas.[168] The Court clarified that a "conclusion that an issue is for the judge does not indicate that Rule 52(a) is inapplicable."[169] The Supreme Court rejected as unsubstantiated the Federal Circuit's concern that deferring to trial court findings of fact would create less uniformity in claim construction.[170] But, the Court did make a distinction between the standard of review that courts should apply when claim construction depends on unambiguous intrinsic evidence (presumably where underlying factual disputes are nonexistent), and when extrinsic evidence is obtained to shed light on claim meaning.[171]

When a district court reviews evidence solely intrinsic to the patent, the judge's determination is solely a legal question to be reviewed de novo.[172] When, however, the court must look at extrinsic evidence to gather claim meaning, courts will need to make subsidiary factual findings based on that evidence.[173] "[T]his subsidiary factfinding must be reviewed for clear error on appeal."[174] The Court specifically gave as an example of the kind of fact-finding worthy of deference on appeal: when a trial court resolves a dispute regarding testimony between experts as to claim meaning or a technical term.[175] The Court made clear, however, that the ultimate interpretation of the claim is a legal conclusion, which is reviewed de novo.[176] But, an appellate court must find that a trial judge clearly erred in making factual findings in order to overturn how the judge resolved the factual dispute.[177] Further, "[a]n

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[166] *Id.* at 127 (internal quotation marks omitted) (quoting Aetna Life Ins. Co. v. Haworth, 300 U.S. 227, 240–41 (1937)).

[167] *Id.* (internal quotation marks omitted).

[168] *See* Teva Pharms. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 838 (2015). ("[W]hen we held in *Markman* . . . claim construction is for the judge . . . , we did not create an exception from the ordinary rule governing appellate review of factual matters.").

[169] *Id.*

[170] *Id.* at 839–40 ("Neither the Circuit nor Sandoz . . . has shown that . . . divergent claim construction . . . should occur more than occasionally.").

[171] *Id.* at 841.

[172] *Id.* (including the patent claims, specifications, and prosecution history in intrinsic evidence).

[173] *Id.*

[174] *Id.*

[175] *Id.*

[176] *Id.*

[177] *Id.*

appellate court . . . should review for clear error those factual findings that underlie a district court's claim construction."[178]

At trial, the district court credited the petitioner's expert with the proper interpretation of "molecular weight," rejecting respondent's expert's testimony.[179] The Federal Circuit incorrectly reviewed the trial court's findings of fact because no clear error was found in overturning the trial court's claim construction.[180] Consequently, the Supreme Court vacated the Federal Circuit's judgment and remanded the case for further proceedings consistent with the new standard of review.[181]

D. Policy Considerations Evaluated in the Dissent

Justice Thomas, in his dissent, disagreed that claim construction involves findings of fact.[182] If it did, Justice Thomas agreed that Federal Rule of Civil Procedure 52(a)(6) (Rule 52) would apply.[183] Justice Thomas looked to *Miller v. Fenton*[184] to evaluate how the Court reviewed district court determinations at the time Rule 52 was adopted.[185] The more similar a question is to simple historical fact, the more it is like a question of fact.[186] The more a question is applicable beyond the parties' dispute, the more it resembles a question of law.[187] The question then becomes whether the subsidiary findings underlying claim construction are more like those underlying statutory construction or those underlying construction of contracts and deeds.[188] Because patents are government-granted property that oblige the public at large, and not like a bilateral contract expressing the parties' actual intent, the dissent concludes that patents are more like statutes and deeds than contracts.[189] De novo review of statutory construction "ensures[s] that the construction is not skewed by the specific evidence presented in a given case[,]" thus creating uniformity.[190]

Furthermore, the dissent says, even when extrinsic evidence is reviewed, it is looked at in a way that one of ordinary skill would have understood the

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[178] *Id.* at 842.
[179] *See id.* at 842–43.
[180] *Id.* at 843.
[181] *Id.*
[182] *Id.* at 844 (Thomas, J., dissenting).
[183] *See id.*
[184] 474 U.S. 104 (1985).
[185] *Teva*, 135 S. Ct. at 845 (Thomas, J., dissenting) (citing *Miller*, 474 U.S. at 116).
[186] *Id.*
[187] *Id.*
[188] *Id.* at 847.
[189] *Id.*
[190] *Id.* at 848.

claim term at the time of filing.[191] Because there is no actual person of ordinary skill, this analysis is more akin to a conclusion of law than a finding of fact.[192] Criticizing the majority's failure to justify its holding in terms of which judicial actor is better situated to promote uniformity, the dissent opined that appellate courts are better than trial courts for this purpose.[193] For policy reasons, the dissent contended that attaining uniformity means appellate courts are in a better position to control the claim construction outcome even in rare cases where subsidiary fact-finding is necessary.[194] "[T]he line between fact and law is an uncertain one[,]" and the majority's opinion is likely to create "collateral litigation over the line between law and fact."[195]

III. The Federal Circuit's Review of Claim Construction Post-*Teva*

Perhaps because the Federal Circuit declared claim construction a question of law in *Markman I*,[196] since 1995 litigants have not steered trial judges toward make findings of fact regarding evidence used to support their claim construction.[197] Often, on appeal, records were devoid of the kind of findings of fact Rule 52(a) envisioned being reviewed for clear error.[198] Because a trial

[191] *See id.* at 849.

[192] *Id.*

[193] *See id.* at 851.

[194] *Id.*

[195] *Id.* at 852.

[196] *See Markman I*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

[197] *Cf.* Eric M. Dobrusin and Katherine E. White, Intellectual Property Litigation: Pretrial Practice §13.03[B] (Aspen, 3d ed. 2008 & Supp. 2015) (urging litigants to submit findings of fact, likely because litigants are not already doing so). The authors recommend:

> Under appropriate circumstances, litigants should consider various procedures to facilitate the grant of the relief requested, including the submission of proposed orders or *proposed findings of fact* and conclusions of law. A litigant who carefully drafts such a document and succeeds in persuading the judge to adopt it may obviate potential grounds for appeal based upon the failure of a district court to set forth its findings and conclusions, such as in a preliminary injunction context. Orders or findings and conclusions well supported by the record also help to reduce the burden of locating support in the event of an appeal, months or years later. Moreover, well-drafted statements of uncontested fact (required in some jurisdictions) may facilitate the task of the court in preparing a reasoned opinion.

Id. (emphasis added) (internal quotation marks omitted); *see, e.g.*, Info-Hold, Inc. v. Applied Media Techs. Corp., 783 F.3d 1262, 1266 (Fed. Cir. 2015) (providing an example of litigants who did not steer courts towards making findings of fact).

[198] *E.g.*, Sociedad Espanola de Electromedicina y Calidad, S.A. v. Blue Ridge X-Ray Co., No. 2015-1102, 2015 WL 4603764, at *2 (Fed. Cir. July 31, 2015); Biosig Instruments,

court's claim construction received no deference, judges had little motivation to provide rationale for how the claims were construed.[199] Because the trial court record is often devoid of trial court findings of fact, the Federal Circuit continues to treat claim interpretation as a question of law post-*Teva*, with few exceptions.[200] Accordingly, it often says the trial court's claim construction was based solely on intrinsic evidence, and thus requires no deference.[201] In cases where the Federal Circuit finds the extrinsic evidence in conflict with the intrinsic evidence, the court finds the extrinsic evidence is not credible.[202] Even in cases where conflicting expert testimony is heard, the Federal Circuit says it is unclear that such extrinsic evidence was relied upon in the trial court's claim construction determination.[203] Many of these cases are discussed below.

Inc. v. Nautilus, Inc. (*Nautilus II*), 783 F.3d 1374, 1378 (Fed. Cir. 2015).

[199] *Info-Hold*, 783 F.3d at 1266.

[200] *E.g.*, *Sociedad Espanola*, 2015 WL 4603764, at *2; *Info-Hold*, 783 F.3d at 1266; Fenner Invs., Ltd. v. Cellco P'ship, 778 F.3d 1320, 1322 (Fed. Cir. 2015); *see also Nautilus II*, 783 F.3d at 1378.

[201] Ethicon Endo-Surgery, Inc. v. Covidien, Inc., No. 2014-1370, 2015 WL 4680726, at * 9 (Fed. Cir. Aug. 7, 2015) ("We review the district court's claim construction here de novo because it relied only on evidence intrinsic to the [] patent."); *Sociedad Espanola*, 2015 WL 4603764, at *2 ("Because the district court relied only on intrinsic evidence in its claim construction, we review its claim construction entirely de novo." (emphasis omitted)); *Info-Hold*, 783 F.3d at 1373 (holding district court's claim construction was based solely on intrinsic evidence, thus de novo review); Cadence Pharms. Inc. v. Exela Pharmsci Inc., 780 F.3d 1364, 1368 (Fed. Cir. 2015) (reviewing district court's claim construction, based entirely on intrinsic evidence, de novo); Pacing Techs., LLC v. Garmin Int'l, Inc., 778 F.3d 1021, 1023 (Fed. Cir. 2015) (reviewing claim construction de novo on appeal because only intrinsic evidence at issue); *Fenner Invs.*, 778 F.3d at 1321–22 (affirming district court's claim construction based on intrinsic evidence); *In re* Papst Licensing Dig. Camera Patent Litig., 778 F.3d 1255, 1261 (Fed. Cir. 2015) (applying de novo review because trial court only relied on intrinsic evidence); *see also Info-Hold*, 783 F.3d at 1266 (applying the de novo standard of review to purely intrinsic evidence, or because no findings of fact were made, it was categorized neither as intrinsic nor extrinsic); *see also* Eidos Display, LLC. v. AU Optronics Corp., 779 F.3d 1360, 1365 (Fed. Cir. 2015) ("To the extent the district court considered extrinsic evidence in its claim construction order . . . that evidence is ultimately immaterial to the outcome because the intrinsic record is clear."); *see also Nautilus II*, 783 F.3d at 1382 ("Our prior analysis primarily relied on intrinsic evidence and we found the extrinsic evidence underscores the intrinsic evidence." (internal quotation marks omitted) (quoting Biosig Instruments, Inc. v. Nautilus, Inc. (*Nautilus I*), 715 F.3d 891, 901 (Fed. Cir. 2013)).

[202] Philips v. AWH Corp., 415 F.3d 1303, 1317–19 (Fed. Cir. 2005) (en banc); *see also* Kaneka Corp. v. Xiamen Kingdomway Grp. Co., 790 F.3d 1298, 1304 (Fed. Cir. 2015).

[203] *See* Shire Dev., LLC v. Watson Pharms., Inc., 787 F.3d 1359, 1364–65, 1368 (Fed. Cir. 2015).

In *Enzo Biochem Inc. v. Applera Corp.*,[204] the patented invention involved using nucleotide probes to "detect, monitor, localize, or isolate nucleic acids" in very small quantities when sequencing deoxyribonucleic acid ("DNA").[205] The term in dispute is "at least one component."[206] The district court consulted both intrinsic and extrinsic evidence, including expert testimony, and concluded that "at least one component" meant one or more.[207] On appeal, the Federal Circuit substituted its own claim construction for that of the trial court's, finding that "at least one" means more than two.[208] Although the trial court heard expert testimony, the Federal Circuit characterized it as addressing a fundamentally different question than the specific issue in dispute.[209]

Although the Federal Circuit made reference to its need to defer to the trial court's findings under *Teva*, the Federal Circuit chose to override that need, relying more on how it interprets the specification, without actually reviewing the trial court's findings for clear error.[210] In essence, the court found the extrinsic evidence to be inappropriate.[211] In her dissent, Judge Newman criticized the majority for failing to defer to the trial court findings of fact without pointing to any contrary evidence to justify the Federal Circuit's holding.[212] She saw that, instead, the court was holding grammar and linguistics paramount in interpreting the claims, while ignoring the expert testimony, the trial court's findings, and the jury verdict.[213] This case is an robust example of how the Federal Circuit continues to wield its control over claim construction, even post-*Teva*.

In *Shire Development, LLC v. Watson Pharmaceuticals, Inc.*,[214] after the case was remanded following *Teva*, the Federal Circuit gave no deference to the trial court's claim construction because the case did not involve factual findings.[215] Expert testimony was heard in a *Markman* hearing and at trial.[216] But, because the district court made no apparent factual findings underlying its

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[204] 780 F.3d 1149 (Fed. Cir. 2015).

[205] *Id.* at 1150.

[206] *See id.* at 1154.

[207] *Id.* at 1155.

[208] *See id.* at 1154.

[209] *Id.* at 1156 ("However, the expert testimony cited by Enzo does not discuss whether ligands . . . could be directly detected, but instead whether one could directly detect [a pure solution of one ligand] . . . , a fundamentally different question.").

[210] *See id.*

[211] *See id.*

[212] *Id.* at 1159 (Newman, J., dissenting).

[213] *Id.*

[214] 787 F.3d 1359 (Fed. Cir. 2015).

[215] *Id.* at 1361.

[216] *Id.* at 1368.

claim constructions of the terms "inner lipophilic matrix" and "outer hydrophilic matrix," the Federal Circuit reversed and remanded, without invoking a deferential standard of review in its new claim construction.[217] The question was whether the two matrices had to be "separate and distinct."[218] The district court did not think so, but the Federal Circuit disagreed, stating that the intrinsic evidence pointed towards requiring the matrices to be "separate and distinct."[219] Because the trial court did not make factual findings as required by Rule 52(a), the Federal Circuit should have remanded the case for factual findings supporting the claim construction determination. Instead, the Federal Circuit maintained control over the claim interpretation.

In *Vasudevan Software, Inc. v. Microstrategy, Inc.*,[220] the Federal Circuit affirmed the district court's claim construction, which was based wholly on the intrinsic evidence.[221] The patentee put on an expert witness to testify as to the meaning of the disputed claim term.[222] But the Federal Circuit held that the district court did not rely on this testimony because the prosecution history was central to the district court's claim construction, and the expert conceded the disputed term did not have a consistent use.[223]

In *Kaneka Corp. v. Xiamen Kingdomway Group Co.*,[224] the district court's claim construction, which relied on dictionary meanings and related testimony (extrinsic evidence), conflicted with the intrinsic record.[225] The Federal Circuit found the district court's interpretation of the term "sealed tank" excluded all disclosed embodiments.[226] Plus, the term "sealed" could be established from the specification.[227] Since the summary judgment of noninfringement was based on an erroneous claim construction, it was vacated and remanded.[228] But, it was not remanded specifically to develop the record to include findings of fact that support the court's claim construction.[229]

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[217] *Id.*

[218] *Id.* at 1366.

[219] *Id.* at 1366, 1368.

[220] 782 F.3d 671 (Fed. Cir. 2015).

[221] *Id.* at 676, 681.

[222] *See id.* at 677.

[223] *Id.* at 678.

[224] 790 F.3d 1298 (Fed. Cir. 2015).

[225] *Id.* at 1304.

[226] *Id.*

[227] *Id.* at 1305.

[228] *Id.* at 1303, 1307.

[229] *Cf. id.* at 1303, 1307 (indicating summary judgment should be vacated when based on an erroneous claim construction; Federal Circuit remanding to district court for proceedings consistent with finding of erroneous claim construction).

In *EON Corp. IP Holdings LLC v. AT&T Mobility LLC*,[230] the trial court, on summary judgment, found all the asserted claims to be indefinite.[231] The claim construction analysis was intertwined with the indefiniteness determination.[232] Because the Federal Circuit found no clear error in the district court's factual findings resulting from its expert testimony analysis, it affirmed.[233] Although the Federal Circuit deferred to the trial court here, the indefiniteness issues drove the outcome.[234]

At least one case was remanded to further develop the record to support the trial court's claim construction. In an unpublished opinion, *Virginia Innovation Sciences, Inc. v. Samsung Electonics Co.*,[235] extrinsic evidence had to be consulted because the intrinsic evidence was insufficient for claim construction purposes.[236] Because neither the intrinsic nor the extrinsic evidence of record clarifies what the claim term "display format" means, the case was remanded to further develop the record to determine its meaning.[237]

Exceptionally, the Federal Circuit properly deferred to the trial court findings of fact regarding the extrinsic evidence in an unpublished opinion, *Flexiteek Americas, Inc. v. Plasteak, Inc.*[238] To support its claim construction, the district court reviewed intrinsic evidence, as well as expert witness declarations.[239] On appeal, the Federal Circuit stated, "[w]e conclude that the district court properly construed the term 'longitudinal slots' in light of both the intrinsic and extrinsic evidence."[240]

Conclusion

In *Teva,* the Supreme Court made clear what policy considerations it deems important in analyzing claim construction. The Court is especially concerned about whether a trial judge or an appellate court is best suited to decide the issue. The more an issue is applicable beyond the parties' dispute,

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[230] 785 F.3d 616 (Fed. Cir. 2015).

[231] *Id.* at 619.

[232] *Id.* at 620.

[233] *Id.* at 624 ("[B]ased on expert testimony, the district court found that 'special code would have to be written in order to accomplish the claimed functionality.' " (quoting EON Corp. IP Holdings, LLC v. FLO TV Inc., No. CV 10-812-RGA, 2014 WL 906182, at *5 (D. Del. Mar. 4, 2014)).

[234] *Id.*

[235] No. 2014-1477, 2015 WL 3555700 (Fed. Cir. Jun. 9, 2015) (unpublished).

[236] *Id.* at *7.

[237] *Id.*

[238] See No. 2014-1214, 2015 WL 1244475, at *3 (Fed. Cir. Mar. 19, 2015) (unpublished).

[239] *See id.* at *2.

[240] *Id.* at *3.

the more it resembles a question of law.[241] Appellate courts, especially courts with national jurisdiction, can bring great uniformity to the law, which creates clarity. If such clarity is needed, the standard of review should be de novo.[242] The Court emphasized that it is not the role of the appellate courts to decide factual issues de novo.[243] Because the trial judge is privy to evidence presented firsthand over an extended period of time, trial courts are better at making credibility determinations.[244] The more akin a question is to simple historical fact, the more it is like a question of fact.[245] After reciting these policy considerations, the Supreme Court in *Teva* overturned twenty years of precedent and changed the standard of review for claim construction. Where the trial court's claim construction is based solely on intrinsic evidence, the appellate court now gives it now deference, reviewing the claim construction *de novo.* But where the trial court uses extrinsic evidence to construe claims, the appellate courts are required to give deference to trial court findings of fact as required under Rule 52(a).

Although the Federal Circuit no longer focuses on the right to jury trial issue post-*Markman II*, the court still seeks control over claim construction. This is evident from the court's failure to apply the new standard of review required by *Teva*. Because the Federal Circuit has treated claim construction as a question of law since 1995, cases pending before *Teva* often do not have robust records containing trial court findings of fact. Post-*Teva*, appellate courts are required to defer to trial court findings of fact. If the trial court does not make findings of fact, the appellate court must remand so that factual findings can be made. Instead, the Federal Circuit is improperly substituting its own claim construction for that of the trial court's without remanding for those findings. It is in direct conflict with *Teva* for the court to substitute its claim construction for the district court's and not remand for findings of fact.

Patent litigation is often complex. To manage these cases, many district courts have made their own local patent rules[246] to advance best practices

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[241] Teva Pharms. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 845 (2015) (Thomas, J., dissenting) (citing Miller v. Fenton, 474 U.S. 104, 116 (1985)).

[242] *See id.* at 851 ("The need for uniformity in claim construction also weighs heavily in favor of *de novo* review of subsidiary evidentiary determinations.").

[243] *Id.* at 837 (majority opinion).

[244] Salve Regina Coll. v. Russell, 499 U.S. 225, 232–33 (1991); *see also* Richard H.W. Maloy, *"Standards of Review"—Just a Tip of the Icicle*, 77 U. Det. Mercy L. Rev. 603, 629 (2000).

[245] *Teva*, 135 S. Ct. at 845 (Thomas, J., dissenting) (citing *Miller*, 474 U.S. at 116).

[246] *See* Fed. R. Civ. P. 83(a)(1) ("After giving public notice and an opportunity for comment, a district court, acting by a majority of its district judges, may adopt and amend rules governing its practice.").

for patent infringement cases, including *Markman* hearings.[247] But, because these efforts took place in an environment where claim construction was a question of law, these rules do not address how to focus the trial court's claim construction in terms of making findings of fact optimal for use on appeal. The rules focus more on case management procedures to reduce the pendency time for patent litigation and increase efficiency.[248] Perhaps, post-*Teva*, there should be another movement to develop local patent rules that will address how to better create a full record establishing trial court factual findings that relate to its claim construction determinations.

[247] *See, e.g.*, *Patent Rules Made Easy: Basics*, Local Patent Rules, http://www.local-patentrules.com/basics/ (last updated Nov. 2014).

[248] *See generally* Judge Matthew F. Kennelly & Edward D. Manzo, *Northern District of Illinois Adopts Local Patent Rules*, 9 J. Marshall Rev. Intell. Prop. L. 202 (2009).