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Patent Claim Interpretation Methodologies and Their Claim Scope Paradigms

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PATENT CLAIM INTERPRETATION METHODOLOGIES AND THEIR CLAIM SCOPE PARADIGMS

CHRISTOPHER A. COTROPIA*

ABSTRACT

The optimal scope of patent protection is an issue with which patent system observers have struggled for decades. Various patent doctrines have been recognized as tools for creating specific patent scopes and, as a result, implementing specific patent theories. One area of patent law that has not been addressed in the discussion on patent scope and theories is patent claim interpretation. This omission is particularly noteworthy because of the substantive role patent claims and the interpretation thereof play in the patent system, namely the framing of questions of patent infringement and validity.

This Article will explore the not-yet-discussed relationship between claim interpretation methodology and patent scope. The discussion will focus on how changes in interpretation methodology affect patent scope, an aspect of methodologies that the Article identifies as their “claim scope paradigm.” Introducing the claim scope paradigm concept is mainly beneficial for two reasons. First, identifying the claim scope paradigm allows different interpretation methodologies to be evaluated as to their impact on the substantive function of patent claims. A claim scope paradigm criterion represents a significant and worthwhile departure from the current standard of certainty used by courts and commentators. Second, recognizing

* C.J. Morrow Research Associate Professor of Law, Tulane University School of Law. The author would like to thank Mark Lemley, Adam Mossoff, Craig Nard, and Polk Wagner for their comments and suggestions regarding this Article. The author would also like to thank participants at the Tulane University School of Law Intellectual Property Colloquium and the Michigan State University College of Law Intellectual Property Scholars Roundtable for their comments and suggestions on earlier incarnations of this Article. As always, special thanks to Dawn-Marie Bey for all of her helpful insights on this Article.

claim scope paradigms facilitates the use of claim interpretation methodology as a patent policy lever. Interpretation methodologies can be highly effective levers, having the ability to inject patent policy at the most basic level of the patent process.

TABLE OF CONTENTS

INTRODUCTION 53

I. FUNCTIONS OF PATENT CLAIMS 61

 A. *Public Notice Function* 62

 B. *Patent Scope Defining Function* 65

II. PATENT CLAIM INTERPRETATION METHODOLOGIES 69

 A. *Claim Interpretation Basics* 70

 1. *Interpretative Sources* 72

 2. *Canons of Interpretation* 73

 B. *Common Variation Among Methodologies: The Degree of Influence of the Specification* 74

 1. *Patent Specification* 75

 2. *Use of the Specification in Claim Interpretation* 79

 C. *Majority and Dissent in the Phillips v. AWH Corporation Panel Decision: An Example of Two Different Claim Interpretation Methodologies* 82

 1. *The Majority's Methodology's Full and Early Use of the Specification* 83

 2. *The Dissent's Methodology's Heavy Presumption in Favor of Dictionaries* 87

 D. *En Banc Decision in Phillips v. AWH Corporation: The Federal Circuit Selects a Claim Interpretation Methodology* 90

III. EVALUATING CLAIM INTERPRETATION METHODOLOGIES 93

 A. *Need for Evaluation Criteria* 95

 B. *Certainty as an Evaluation Criterion* 97

 C. *Shortcomings of Certainty as a Criterion* 99

IV. A NEW EVALUATION CRITERION: A METHODOLOGY'S CLAIM SCOPE PARADIGM 102

 A. *Identification of an Interpretation Methodology's Claim Scope Paradigm* 103

 1. *Claim Scope Paradigm of the Specification Methodology* 105

 2. *Claim Scope Paradigm of the Heavy Presumption Methodology* 109

 B. *Evaluating Claim Interpretation Methodologies Based on Their Claim Scope Paradigm* 115

1. <i>Competitive Innovation Theory Supports the Selection of the Specification Methodology</i>	117
2. <i>Prospect Theory (Possibly) Supports the Selection of the Heavy Presumption Methodology</i>	121
C. <i>Benefits to Using Claim Scope Paradigm as a Criterion</i>	124
1. <i>Claim Scope Paradigm Addresses a Methodology's Effect on the Substantive Function of Patent Claims</i>	124
2. <i>Recognizing that the Claim Scope Paradigm Facilitates Using Claim Interpretation Methodology as a Highly Effective Patent Policy Lever</i>	127
CONCLUSION	133

INTRODUCTION

The optimal scope of patent protection is an issue with which patent system observers have struggled for decades.¹ With any invention, considerations turn to what aspects of the invention deserve to be protected and are therefore patentable.² Questions also arise regarding what products and processes the inventor should be able to control with her patent.³ Both of these areas of concern fall under the broader question of appropriate patent scope. Patent scope defines the inventor's power over the markets related to the patented invention.⁴ Different patent theories suggest different scopes of protection to either create incentives for the inventor to invent⁵ or to facilitate the invention's commercialization and improvement.⁶ Various patent doctrines have been recognized as tools for creating specific patent scopes and, as a result, implementing specific patent theories.⁷

One area of patent law unaddressed in the discussion on patent scope and theories is patent claim interpretation. Patent claims are

1. See Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1595-99 (2003) (discussing the divergent theories of the optimal patent scope); Robert P. Merges & Richard R. Nelson, *On the Complex Economies of Patent Scope*, 90 COLUM. L. REV. 839, 839-40 & n.2 (1990) (noting some of the scholarly work on patent scope).

2. See Mark D. Janis, *Reforming Patent Validity Litigation: The "Dubious Preponderance,"* 19 BERKELEY TECH. L.J. 923, 937 (2004) ("It is a mistake to suggest changes to patent validity doctrines without accounting for the interconnections between validity and other doctrines, such as patent scope, especially in light of the fact that the law of patent scope has been particularly volatile in the past decade.").

3. See Arti K. Rai, *Engaging Facts and Policy: A Multi-Institutional Approach to Patent System Reform*, 103 COLUM. L. REV. 1035, 1045 (2003) ("Resolving the infringement question also requires looking at patent scope.").

4. See *id.*; see also Merges & Nelson, *supra* note 1, at 839-40.

5. See Burk & Lemley, *supra* note 1, at 1604-10 (describing the competitive innovation and the cumulative innovation theories, two *ex ante* theories of patent law); Mark A. Lemley, *Ex Ante Versus Ex Post Justifications for Intellectual Property*, 71 U. CHI. L. REV. 129, 129-31 (2004) (describing the classical *ex ante* theory of patent law).

6. See Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 266 (1977) (describing the prospect theory of patent law, an *ex post* patent theory); Lemley, *supra* note 5, at 131-35 (explaining the *ex post* theories of patent law).

7. See Burk & Lemley, *supra* note 1, at 1638-68 (cataloging different patent doctrines that are either currently used, or could potentially be used, to implement particular patent theories).

single sentences found at the end of the patent document.⁸ They are statutorily charged with the task of defining the patented invention.⁹ In a vacuum, claim terms are of little use. They must be interpreted and given meaning so they can be used in a given context.

The current focus regarding claim interpretation is on which interpretation method should be used.¹⁰ The question of proper interpretation methodology has been at the forefront since the Supreme Court held in *Markman v. Westview Instruments, Inc.* that claim interpretation, also known as claim construction, is a matter exclusively for the courts.¹¹ Since this decision, the Federal Circuit, the court with exclusive appellate jurisdiction over patent cases,¹² has consistently spoken on the methodology question. The discussions on proper interpretation methodology developed problematically into two distinct methodologies.¹³ Recognizing this fact, the Federal Circuit recently issued an en banc opinion in *Phillips v. AWH Corp. (Phillips III)* choosing one of these methodologies.¹⁴

Heretofore, courts and commentators have not viewed this choice between methodologies as a question involving patent scope. To the contrary, claim interpretation methodology has been seen as only effectuating the public notice function of patent claims.¹⁵ That is, claims are interpreted only to inform patent observers about the

8. 35 U.S.C. § 112 (2000) (“The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”).

9. *Id.*

10. See R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105, 1125-26, 1129-36, 1171-72 (2004) (detailing the current trends in claim interpretation methodology).

11. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996).

12. 28 U.S.C. § 1295(a) (2000).

13. See James R. Barney, *In Search of “Ordinary Meaning,”* 85 J. PAT. & TRADEMARK OFF. SOC’Y 101, 105-06 (2003) (detailing two distinct claim interpretation methodologies: the “holistic approach” and the “procedural approach”); Wagner & Petherbridge, *supra* note 10, at 1133-36 (same).

14. See *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *13-15 (Fed. Cir. July 12, 2005) (en banc) (adopting the methodology that relies heavily on the specification over the methodology that focuses greatly on dictionaries).

15. See John M. Romary & Arie M. Michelsohn, *Patent Claim Interpretation After Markman: How the Federal Circuit Interprets Claims*, 46 AM. U. L. REV. 1887, 1890-91 (1997) (noting how the Federal Circuit focuses on the concept of public notice in questions regarding claim interpretation methodology).

patented invention, but nothing more. To meet this goal, methodologies that produce certain, reproducible, and definitional results should be adopted. Claim interpretation methodologies are thus evaluated under a certainty criterion.

The Federal Circuit's en banc order in *Phillips v. AWH Corp.* (*Phillips II*) makes certainty the only evaluation criterion, asking which methodology "better serve[s]" the "public notice function of patent claims."¹⁶ The Federal Circuit's en banc opinion in *Phillips III* continues to recognize certainty as a goal.¹⁷ This narrow focus on certainty has overlooked claim interpretation methodology's impact on the other, more important, function of patent claims—substantively defining patent scope. A choice among interpretation methodologies is also a choice among possible patent scopes. Different approaches to claim interpretation result in different claim definitions, which in turn create different patent scopes because the defined claim establishes the protection afforded the inventor.

For example, consider the Federal Circuit's recent decision in *Microsoft Corp. v. Multi-Tech Systems, Inc.*¹⁸ In *Microsoft*, Multi-Tech charged Microsoft with infringing its patents covering the simultaneous transmission of voice and computer data.¹⁹ The dispute came down to whether Multi-Tech's patents covered Microsoft's transmission of voice and data through a packet-switched network, such as the Internet, or if the patent covered only simultaneous transmission through direct point-to-point telephone line connections.²⁰ The Federal Circuit framed this question as one of patent claim interpretation, asking whether the patents' claim terms "sending," "transmitting," and "receiving" were limited to communication over a direct telephone connection.²¹ If so, Microsoft's technology did not fall within the claims' scope of exclusivity and therefore did not infringe.²²

16. *Phillips v. AWH Corp.* (*Phillips II*), 376 F.3d 1382, 1383 (Fed. Cir. 2004) (en banc).

17. See *Phillips III*, 2005 WL 1620331, at *10, *15. The opinion does, however, include some recognition of the relationship between interpretation methodology and claim scope. See *id.* at *14, *16. The extent of this recognition is discussed in Part IV of this Article.

18. 357 F.3d 1340 (Fed. Cir. 2004).

19. *Id.* at 1342-44.

20. *Id.* at 1344-45.

21. *Id.* at 1346; see also *id.* at 1354-55 (Rader, J., dissenting) (framing the dispute the same way).

22. *Id.* at 1344-45.

The court's panel could not agree on a result. The source of their disagreement was the proper method of interpreting Multi-Tech's patent claims. The majority interpreted the claims by relying, for the most part, on the patents' specifications.²³ They focused on statements in the patents describing the invention as a "personal communications system [that] includes 'hardware to enable voice, fax and data communications with a remote site connected through a standard telephone line....'"²⁴ As a result of consulting the specification, the majority limited the claim terms at issue to communication over a telephone line and found that Microsoft did not infringe. In contrast, the dissent focused on the ordinary meaning of the terms "sending," "receiving," and "transmitting," and concluded that their plain meaning did not limit communication to a particular network.²⁵ The dissent, therefore, found that Multi-Tech's patents covered the disputed products.

Although framed as merely a question of proper interpretation methodology, the *Microsoft* decision is also about proper patent scope. By adopting the specification-centric methodology, the majority de facto concluded that Multi-Tech should not have exclusivity beyond the details of the invention described in its patent. The dissent, in contrast, employed a methodology that allowed Multi-Tech to enjoy a broader patent scope. The type of products Multi-Tech could exclude therefore depended on the chosen methodology. The linkage between methodology and patent scope exhibited in *Microsoft* holds true in most cases centered on claim interpretation.

This Article will explore the relationship between claim interpretation methodology and patent scope. Although the Federal Circuit's recent opinion in *Phillips III* has started this discussion, it has yet to be developed fully.²⁶ Interpretation methodologies differ in the informational sources they reference and the degrees of influence they afford each informational source during interpretation. These

23. *Id.* at 1347-49. A patent's specification must contain a description of the invention and instructions on how to make and use it. 35 U.S.C. § 112 (2000).

24. *Microsoft*, 357 F.3d at 1348 (quoting and citing portions of the patents at issue).

25. *Id.* at 1354-55 (Rader, J., dissenting).

26. See *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *14, *16 (Fed. Cir. July 12, 2005) (en banc) (mentioning a relationship between the two methodologies and the resulting claim scope).

differences usually result in different meanings for the claim terms at issue. Core patent inquiries then use the defined claim to determine whether a product or process infringes the patent or whether the patent is invalid in light of preexisting art.²⁷ Through these steps, methodology changes can impact the elements of patent scope by determining what a patentee can and cannot exclude or whether a patent is enforceable. As the particulars of claim interpretation change, so do the resulting patent scope's characteristics.

This Article defines how a methodology affects patent scope as that methodology's "claim scope paradigm." Encoded in each interpretation method is a unique claim scope paradigm that reflects a view on the proper scope of protection that an invention should be afforded. A methodology may favor a narrow patent scope, such as the majority's approach in *Microsoft*. On the other hand, a methodology may have a claim scope paradigm that produces broad patent protection, such as the dissent's methodology in *Microsoft*. Notably, the specifics of the methodology employed, and not the claim language at issue, produce variation in scope between methodologies. In short, the methodology's claim scope paradigm determines the patent scope.

Many benefits exist in recognizing a claim interpretation methodology's claim scope paradigm. First, identifying the claim scope paradigm allows different interpretation methodologies to be evaluated for their impact on the substantive function of patent claims. Evaluation of claim interpretation methodologies is a pressing topic, particularly in light of the Federal Circuit's recent en banc decision in *Phillips III* that selected between competing methodologies. As opposed to certainty, claim scope paradigm is a criterion through which courts and commentators can judge

27. See *TI Group Auto. Sys. (N. Am.), Inc. v. VDO N. Am., L.L.C.*, 375 F.3d 1126, 1139 (Fed. Cir. 2004) ("Our validity analysis is a two-step procedure: 'The first step involves the proper interpretation of the claims. The second step involves determining whether the limitations of the claims as properly interpreted are met by the prior art.'") (quoting *Beachcombers, Int'l, Inc. v. WildeWood Creative Prods., Inc.*, 31 F.3d 1154, 1160 (Fed. Cir. 1994)); *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc) ("An infringement analysis involves two steps. First, the court determines the scope and meaning of the patent claims asserted, and then the properly construed claims are compared to the allegedly infringing device.") (citations omitted).

methodologies by their effect on the substantive, patent scope-defining function of patent claims. By identifying and examining the claim scope paradigm, the substantive implications of a methodology's adoption become transparent. Patent observers can then judge whether a methodology's claim scope paradigm produces a patent scope they consider favorable and in line with patent policy. Such a criterion can prove particularly useful if the Supreme Court or Congress decides to examine the Federal Circuit's recent decision in *Phillips III*.

Second, recognizing claim scope paradigms also facilitates the use of claim interpretation methodology as a patent policy lever. Patent policy levers are patent doctrines that can be adjusted to implement particular patent policies or patent theories. Claim interpretation methodology has yet to be considered a policy lever, but it possesses all of the necessary attributes. Courts have wide discretion in crafting claim interpretation methodology, and methodology directly affects patent scope by way of its claim scope paradigm. As such, how claims are interpreted can be a vehicle for implementing patent policy. In fact, interpretation methodology can be a highly effective policy lever. Claim interpretation plays a role in all patent decisions, and when involved in an issue, its involvement occurs at the ground level by shaping the interpretation of the patent claim that will then be subject to comparison to an accused device or the prior art. In almost every case and on almost every issue, interpretation methodology has the ability to consistently interject patent policy or theory.

This Article will introduce the concept of a claim interpretation methodology's "claim scope paradigm" and examine its potential benefits. The Article will proceed as follows. Part I will explore the two related rationales for the modern patent claim: the public notice function and the substantive function of defining literal patent scope. The patent claim communicates to the world the contours of the patented invention and, more importantly, actually defines the scope of patent exclusivity. Part II will introduce the concept of claim interpretation. The basics of claim interpretation will be discussed, including both the informational sources usually used during claim construction and the canons of interpretation that govern the usage of these sources. Part II will then detail the

common disagreement among claim interpretation methodologies: the patent specification's proper use during interpretation. Two canons govern the specifications: one asking that claims be read in light of the specification, and the other asking that limitations not be read into the claims from the specification. The tension between these two doctrines requires methodologies to choose sides, favoring one canon over the other. Part II explores the two most recently utilized methodologies, namely the "specification methodology" and the "heavy presumption methodology." These are the two methodologies examined by the Federal Circuit in *Phillips III*. This Part looks at the two methodologies' different views on how the specification should influence the resulting claim definition. Whereas the "specification methodology" fully examines the specification early in the interpretation process, the "heavy presumption methodology" employs a heavy presumption in favor of the ordinary meaning of claim terms, and consequently allows the specification to influence the claim's definition in limited circumstances. Part II will also discuss the *Phillips III* decision, in which the Federal Circuit, sitting en banc, adopted the specification methodology.

Part III discusses the evaluation of claim interpretation methodologies. Part III first discusses the need for evaluation and particularly evaluation criteria. Evaluation criteria allow for rational choice between different methodologies and, more importantly, introduce normative reasons—values—into the evaluation process. By selecting particular criteria, evaluators disclose certain goals or values they would like the interpretation methodology to further. Part III discusses the certainty criterion currently used in evaluating claim interpretation methodologies. Courts and commentators have both focused almost solely on certainty as the only standard to judge methodologies. However, Part III notes some shortcomings of the certainty criterion, the most significant of which is that it ignores a methodology's influence on the most important function of patent claims—substantively defining the patent scope.

Part IV focuses on a new criterion: claim scope paradigm. Part IV first explains the concept of a methodology's claim scope paradigm. The two most recent methodologies are then examined to determine their specific claim scope paradigms. Part IV finds that the specification methodology's claim scope paradigm limits the resulting

claim scope to the full invention disclosed in the specification. In contrast, the heavy presumption methodology includes a paradigm that only loosely links the claim scope with the specification's teachings regarding the invention. Part IV then proceeds to discuss how methodologies can be evaluated under this criterion. The evaluator selects the particular patent policy or theory they would like to further and then judges methodologies based on whether their claim scope paradigms would further this preferred policy or theory. Part IV gives examples using the two recent methodologies and finds that the specification methodology would score well with an evaluator looking to further the competitive innovation theory of patent law. The specification methodology's claim scope paradigm produces a patent scope tied closely to the patentee's actual inventive activities, giving the patentee far from monopoly power. In contrast, the heavy presumption methodology does not fare well under any patent policy or theory because its claim scope paradigm fails to tune patent scope to the patentee's invention.

Finally, Part IV concludes by discussing the advantages of using claim scope paradigm as an evaluation criterion. Part IV first discusses how using the claim scope paradigm gives evaluators the ability to address the substantive function of patent claims. Identifying a methodology's claim scope paradigm allows evaluators to select methodologies that fit their preferred patent theory. Part IV also notes that the claim scope paradigm exposes the existing normative backdrop to methodology selection, that is, choosing a methodology means choosing a patent scope. The second advantage discussed in Part IV is that methodology is facilitated as a policy lever. Once the claim scope paradigm is recognized, one can discern the particular impact that a methodology will have on patent scope. With this information, courts can use methodology to ensure that claim definition comports with patent policy, and if patent policy needs to be changed, courts can select a methodology that effectuates that change.

I. FUNCTIONS OF PATENT CLAIMS

A modern U.S. patent consists of two basic parts: a specification and one or more claims.²⁸ The specification includes textual descriptions and drawings containing information regarding the patented invention.²⁹ This information describes the patented invention and informs those skilled in the relevant technology how to implement the invention.³⁰ A patent ends with one or more patent claims,³¹ which consist of a single sentence describing what the patentee³² defines as the patented invention.³³ The claim must “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention.”³⁴ Law requires both the specification and at least one patent claim.³⁵ Once issued, the patent, containing the specification and one or more patent claims, becomes publicly available.³⁶

28. 35 U.S.C. § 112 (2000).

29. *See id.* The specification is also referred to as the “written description,” because technically the specification includes the patent claims. *See id.* (requiring that “[t]he specification shall conclude with one or more claims”). For purposes of this Article, the term “specification” will be used to refer to all parts of the patent document other than the claims.

30. *Id.*; *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366 (Fed. Cir. 2004) (describing the contents of a patent’s specification).

31. 35 U.S.C. § 112 (2000).

32. The term “patentee” is used to refer to the inventor whose patent is issued. The patent may be assigned to others, who are then considered the patent owner or patent holder. *See* 35 U.S.C. § 261 (2000).

33. 35 U.S.C. § 112 (2000); *see White v. Dunbar*, 119 U.S. 47, 52 (1886) (“The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is”).

Claim 1 of U.S. Patent No. 6,725,809 provides a good example of a patent claim. It reads: “An edible flying retrievable animal toy, comprising: a circular body member having a convex upper surface and a concave lower surface wherein the body member is formed of rawhide.” The patent is directed towards a flying retrievable animal toy that is also edible. As can be seen from claim 1, the claim requires the toy to be circular, have a convex upper surface and concave lower surface, and be made of rawhide. The claim’s upper and lower surface limitations presumably make the claimed flying disc’s shape similar to a Frisbee. U.S. Patent No. 6,725,809 (filed Feb. 26, 2003) (issued Apr. 27, 2004).

34. 35 U.S.C. § 112 (2000).

35. *Id.*

36. *See id.* § 122(b). Patents are available for public viewing and searching through the USPTO’s website. *See* U.S. Patent and Trademark Office, <http://www.uspto.gov>. Unless the applicant selects otherwise, patent applications are published no later than eighteen months after their filing. 35 U.S.C. § 122(b)(1) (2000).

The patent claim plays two major roles in patent law. First, the claim performs a notice function by acting as the vehicle through which the patentee tells the world what the patentee wishes the patent to protect.³⁷ The claim seeks to inform the public of the exact scope of exclusivity granted by the patent.³⁸ The claim's notifying function is effectuated by the claim's predefined and public location at the end of the universally available issued patent. The patent claim also performs a substantive function that goes beyond the claim's public availability. The claim legally defines the patent's scope of protection.³⁹ The claim's meaning delineates the subject matter that only the patentee may practice.⁴⁰ Thus, a patent claim performs both "definitional and public-notice functions."⁴¹ The following subparts explore these two functions in detail.

A. Public Notice Function

A patent claim seeks to inform the public of the subject matter over which the patent provides exclusivity.⁴² Law requires every

37. See *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (discussing the public nature of the patent document and the patent claims).

38. See *id.*; see also *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed. Cir. 2002) (noting how "the public is placed on notice" by patent claims).

39. See *Aro Mfg. Co., Inc. v. Convertible Top Replacement Co.*, 365 U.S. 336, 339 (1961) ("[T]he claims made in the patent are the sole measure of the grant"). The scope of exclusivity the patent grants to the patentee is also referred to as the "claim scope" or the "patent scope" of the patent. Claims define the literal patent scope. This scope is supplemented currently by the doctrine of equivalents. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 731-32 (2002) ("The scope of a patent is not limited to its literal terms but instead embraces all equivalents to the claims described." (citing *Winans v. Denmead*, 56 U.S. (15 How.) 330, 347 (1854))). For purposes of this Article, the claim scope and patent scope being referenced is the literal scope of protection because claim interpretation directly affects only literal scope. Cf. *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931 (Fed. Cir. 1987) (en banc) (articulating the "all elements" rule that prevents a finding of infringement if every element of a claim or its equivalent is not found in the accused device).

40. *McClain v. Ortmyer*, 141 U.S. 419, 424 (1891) ("The rights of the plaintiff depend upon the claim in his patent, according to its proper construction...." (quoting *Masury v. Anderson*, 16 F. Cas. 1087, 1088 (C.C.S.D.N.Y. 1873))).

41. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 (1997).

42. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996) ("It has long been understood that a patent must describe the exact scope of an invention and its manufacture to 'secure to [the patentee] all to which he is entitled, [and] to apprise the public of what is still open to them.'" (alterations in original) (quoting *McClain*, 141 U.S. at 424)), *aff'd*, 517

patent to have claims, and the claims' preset location at the end of the specification is statutorily defined.⁴³ Law also requires the patentee to "particularly point[] out" the subject matter over which the patentee wishes to protect in the claim.⁴⁴ Once the patent issues, the patent claim becomes publicly available.⁴⁵ All of these aspects work together so the claim performs its public notice function by notifying the public of the protected invention.

The claim finds its roots in the need for an instrument to notify the public about the patent's scope of protection. The patent claim is relatively new when compared to the existence of the U.S. patent system.⁴⁶ The early patent statutes of 1790 and 1793 did not explicitly require a claim.⁴⁷ Before the modern patent claim, courts defined the scope of patent rights by discerning the "principle" or "essence" of the invention from the specification's technical description.⁴⁸ Any understanding of the full scope of the patentee's protected invention was taken from the drawings and description in the patent's specification. This inquiry was recognized as "often a point of intrinsic difficulty [sic]."⁴⁹ Courts and juries encountered difficulty in discerning exactly what was protected when they looked only to the specification without any additional guidance.⁵⁰ Specifications can be quite long and may contain material that is irrelevant to defining the patent's scope. Under the specification-only system, both the patentee and the public were unable to determine with any certainty the specific contours of the invention the patent protected.⁵¹

The Patent Act of 1870 introduced specific claiming requirements, indicating that the patentee needed to claim the invention

U.S. 370 (1996).

43. 35 U.S.C. § 112 (2000).

44. *Id.*

45. *See id.* § 122(b).

46. William Redin Woodward, *Definiteness and Particularity in Patent Claims*, 46 MICH. L. REV. 755, 757 (1948); *see also* Karl B. Lutz, *Evolution of the Claims of the U.S. Patents*, 20 J. PAT. OFF. SOC'Y 134, 134-47 (1938) (discussing the history of patent claims).

47. Woodward, *supra* note 46, at 758; *see also* Act of Feb. 21, 1793, ch. 11, 1 Stat. 318 (repealed 1836); Act of Apr. 2, 1790, ch. 7, 1 Stat. 109, 110 (repealed 1793).

48. *See* *Odiorne v. Winkley*, 18 F. Cas. 581, 582 (C.C.D. Mass. 1814) (No. 10,432).

49. *Id.*

50. *See* John F. Duffy, *The Festo Decision and the Return of the Supreme Court to the Bar of Patents*, 2002 SUP. CT. REV. 273, 309-10 (2002).

51. *See id.*

distinctly and with particularity.⁵² The 1870 Act prompted patentees to draft patent claims, in addition to the information already in the specification. More specifically, the Act caused patentees to engage in “peripheral claiming,”⁵³ which involves using claims to “mark[] out the periphery or boundary of the area covered by the claim.”⁵⁴ The patent claim affords the patentee the opportunity to recite the specific metes and bounds of the patented invention to the patent’s reader.⁵⁵ This use of the claim is meant to reduce the confusion over what aspects of the invention the patentee seeks to protect.⁵⁶ Accordingly, the claim provides public notice of what the patent protects.

The public notice function of patent claims now stands at the “forefront of patent law jurisprudence.”⁵⁷ Both the Supreme Court and the Federal Circuit have emphasized the role the patent claim plays in informing the public of the subject matter a patent protects.⁵⁸ In fact, the Federal Circuit’s first question in the en banc order in *Phillips II* emphasized this purpose of patent claims, asking which claim interpretation methodology better serves “the public

52. Patent Act of 1870, ch. 230, § 26, 16 Stat. 198, 201 (1871).

53. RIDSDALE ELLIS, PATENT CLAIMS § 4 (1949).

54. *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1565 (Fed. Cir. 1995) (Nies, J., dissenting) (quoting ELLIS, *supra* note 53, at § 4), *rev'd* 520 U.S. 17 (1997).

55. *Merrill v. Yeomans*, 94 U.S. 568, 570 (1876) (“This distinct and formal claim is, therefore, of primary importance, in the effort to ascertain precisely what it is that is patented”).

56. See, e.g., Giles S. Rich, *Extent of Protection and Interpretation of Claims—American Perspectives*, 21 INT’L REV. INDUS. PROP. & COPYRIGHT L. 497, 501 (1990) (“[T]he function of claims is to enable everyone to know, without going through a lawsuit, what infringes the patent and what does not.”).

57. Craig Allen Nard, *A Theory of Claim Interpretation*, 14 HARV. J.L. & TECH. 1, 15 (2000) (noting that “[t]he importance of the notice function of the patent claim has always been appreciated, or at least understood by judges on the Federal Circuit and its predecessor, the Court of Customs and Patent Appeals”).

58. See, e.g., *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 (1992) (noting the “public-notice function[] of the statutory claiming requirement”); *Univ. of Rochester v. G.D. Searle & Co.*, 358 F.3d 916, 922 & n.5 (Fed. Cir. 2004) (stating that both the Supreme Court and the Federal Circuit frequently discuss the public notice function patent claims serve by telling the public and the Patent and Trademark Office what the patent protects); *PSC Computer Prods., Inc. v. Foxconn Int’l, Inc.*, 355 F.3d 1353, 1359-60 (Fed. Cir. 2004) (identifying the claim’s key role in informing the public “which products or processes would infringe the patent and which would not”).

notice function of patent claims.”⁵⁹ The *Phillips III* en banc opinion reiterated the public notice function of patent claims.⁶⁰

B. Patent Scope Defining Function

Patent claims perform another function; they actually establish the scope of exclusivity afforded to an issued patent.⁶¹ That is, patent claims define the invention the patent will protect. This definitional function is tied to the claim’s public notice function. The substantive function of a patent claim, however, goes well beyond the claim simply being locatable and open to public inspection. The claim tells the public the patent’s particular scope of exclusivity by defining the patent grant’s metes and bounds. This is the most fundamental trait of the modern patent claim.⁶²

Through the claim’s words, the patent claim establishes the primary area of exclusivity the patentee will enjoy because of the patent grant.⁶³ A claim resembles a land description in a deed because it defines the exact area protected by the legal instrument.⁶⁴

59. *Phillips v. AWH Corp. (Phillips II)*, 376 F.3d 1382, 1383 (Fed. Cir. 2004) (en banc).

60. *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *4, *13-15 (Fed. Cir. July 12, 2005) (en banc).

61. Again, to be complete, the patent claim’s literal scope of exclusivity is supplemented by the doctrine of equivalents. *Warner-Jenkinson*, 520 U.S. at 21 (“Under this doctrine, a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is ‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.” (citing *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 609 (1950))). The doctrine of equivalents gives the patentee exclusivity over activities equivalent to the patent claim’s literal scope. *See id.* Under the doctrine of equivalents, the scope of protection is tied to the patent claims by the all-elements rule. To find infringement under the doctrine of equivalents, an equivalent in the accused product for each patent claim element must exist. *See id.*

62. “The economic significance of a patent depends on its scope: the broader the scope, the larger the number of competing products and processes that will infringe the patent.” *Merges & Nelson, supra* note 1, at 839.

63. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607 (1950) (noting that a claim in a patent provides the metes and bounds of the right that the patent confers on the patentee to exclude others from making, using, or selling the protected invention); *Zenith Labs., Inc. v. Bristol-Myers Squibb Co.*, 19 F.3d 1418, 1424 (Fed. Cir. 1994) (noting that the claim “sets the metes and bounds of the invention entitled to protection of the patent system”); *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989) (noting that the claim’s preamble can influence the resulting scope of protection that the entire claim grants).

64. *In re Vamco Mach. & Tool, Inc.*, 752 F.2d 1564, 1577 n.5 (Fed. Cir. 1985) (indicating

A patent grants its owner the right to exclude others from making, using, offering to sell, or selling the “patented invention.”⁶⁵ Each patent claim defines a “patented invention.”⁶⁶ If someone engages in the patent holder’s exclusive activities, they infringe the patent.⁶⁷ Infringement is judged by comparing the allegedly infringing activity to the claims’ defined area of exclusivity.⁶⁸ “Victory in an infringement suit requires a finding that the patent claim ‘covers the alleged infringer’s product or process....’”⁶⁹

The patent claim is also referenced when determining a patent’s validity.⁷⁰ The claim defines the invention,⁷¹ and patent law provides exclusivity for only those inventions that are useful, novel, and unobvious.⁷² The U.S. Patent and Trademark Office (USPTO) evaluates a patent application by examining each of the applica-

that claims are similar to descriptions of lands in deeds because claims provide the metes and bounds that define the area protected by the patent).

The description of land in a deed, like a patent claim, performs both a public notice function and a substantive function. The deed is meant to convey to all the boundaries of the landowner’s property rights. There is, as with a patent claim, an underlying substantive aspect to this definition. The deed establishes, at least in part, the area of land exclusively under the landowner’s control. This substantive function of the deed goes well beyond mere public notification; it establishes the owner’s property interests against the world.

65. 35 U.S.C. § 271(a) (2000). Section 271(a) also prohibits importing the patented invention into the United States. *See id.*

66. *Altoona Publix Theatres, Inc. v. Am. Tri-Ergon Corp.*, 294 U.S. 477, 487 (1935) (“Under the statute it is the claims of the patent which define the invention.”). Each claim defines a separate and distinct invention. *See* 35 U.S.C. § 282 (2000) (noting that each claim of a patent is “presumed valid independently”); *Gould Inc. v. United States*, 579 F.2d 571, 576 (Ct. Cl. 1978) (“It is also important to keep in mind that each claim of a patent is a separate and distinct invention.”).

67. *See* 35 U.S.C. § 271(a) (2000).

68. *See Autogiro Co. of Am. v. United States*, 384 F.2d 391, 396 (Ct. Cl. 1967) (noting that “[c]ourts can neither broaden nor narrow the claims to give the patentee something different than what he has set forth”).

69. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 374 (1996) (quoting H. SCHWARTZ, *PATENT LAW AND PRACTICE* 80 (2d ed. 1995)).

70. *TI Group Auto. Sys. (N. Am.), Inc. v. VDO N. Am., L.L.C.*, 375 F.3d 1126, 1139 (Fed. Cir. 2004) (noting that the “validity analysis is a two-step procedure: ‘The first step involves the proper interpretation of the claims. The second step involves determining whether the limitations of the claims as properly interpreted are met by the prior art.’” (quoting *Beachcombers, Int’l, Inc. v. WildeWood Creative Prods., Inc.*, 31 F.3d 1154, 1160 (Fed. Cir. 1994))).

71. *Altoona Publix Theatres*, 294 U.S. at 487.

72. *See* 35 U.S.C. §§ 101-103 (2000) (defining patentable inventions and the conditions on patentability).

tion's patent claims.⁷³ If any particular patent claim defines an invention that does not meet the patentability requirements, that claim is rejected, is not issued, and cannot be enforced.⁷⁴ A patent claim's validity can also be evaluated in court after the patent's issuance.⁷⁵ As in proceedings before the USPTO, the court determines whether the claim's defined subject matter meets the patentability requirements.⁷⁶ If the claimed subject matter fails any of the protectability requirements, the court invalidates that patent claim.⁷⁷ In all validity determinations, the claim is the starting point of the analysis because it substantively defines what the patentee wishes to protect.⁷⁸ Instead of deciding whether someone infringes this area of protection, validity questions look at the claimed subject matter and determine whether it is worthy of a limited period of exclusivity.

The patent claim's scope is often dispositive for most patent issues.⁷⁹ Once the subject matter the patent claim identifies is defined, infringement and validity questions usually are answered easily.⁸⁰ For questions of infringement, the accused device either falls within or outside the claim's defined area of exclusivity.⁸¹ For

73. See *In re Crish*, 393 F.3d 1253, 1256-57 (Fed. Cir. 2004) (noting that the USPTO's determination of a patent claim's validity first involves construing the patent claims).

74. See *id.*; see also 35 U.S.C. § 131 (2000) (granting the issuance of a patent only after a patent application is examined to determine if the applicant is entitled to a patent under the law).

75. 35 U.S.C. § 282 (2000).

76. See *id.*

77. See *id.*

78. See *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001).

79. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 989 (Fed. Cir. 1995) (Mayer, J., concurring) (noting that "to decide what the claims mean is nearly always to decide the case"), *aff'd*, 517 U.S. 370 (1996); Nard, *supra* note 57, at 3 & nn.6-7 (listing cases that indicate that the claim meaning controls the outcome in patent cases).

80. See *Markman*, 52 F.3d at 989.

81. See *Wagner & Petherbridge*, *supra* note 10, at 1117-18 (noting how claim meaning guides the inquiry in questions of infringement).

Consider the flying, edible, animal toy claim set forth in note 33. The claim required the toy to be made of "rawhide." If a competitor decided to make a flying, edible, animal toy that was circular and shaped like a Frisbee, but made out of dried pork skin, a question would arise as to whether the competitor infringed. The question would center on the meaning of the term "rawhide" and whether it encompassed dried pork skins. If "rawhide" includes dried pork skins, the competitor infringes and the patent holder can enjoin the infringer from making and selling the product. However, if "rawhide" does not include dried pork skins, then the

validity questions, the subject matter the patentee seeks to protect with the claim has either been done before or not.⁸² The patent claim, and more importantly its defined area of exclusivity, play a central role in the patent system.⁸³ That is why the substantive function of patent claims or in other words defining the area of exclusivity is so important. The patent claim's defined area of protection dictates what the patentee can exclude and properly protect.⁸⁴

The patent claim, which is intimately intertwined with infringement and validity—the two core questions in patent law—sits at the core of most patent protection theories.⁸⁵ All patent theories speak to the proper scope of patent protection.⁸⁶ The breadth of protection defines the patent's exclusionary power and how it can affect the technological development in the patent's given industry.⁸⁷ The scope of protection also defines the patent's power relative to what has already been done, thereby establishing how different an invention must be from an earlier accomplishment to warrant patent protection.⁸⁸ Both of these effects of patent protection are addressed by patent theories, which opine about how such protections should be tailored.⁸⁹ Patent theory, and related questions of patent policy, therefore hinge on a patent's scope of exclusivity.⁹⁰ The patent claim defines this scope of exclusivity.

patentee holds no power over the competitor. The claim defines the scope of exclusivity the patentee enjoys, and its meaning usually dictates the outcome of most infringement questions.

82. See 35 U.S.C. § 102 (2000).

83. See *Bloomer v. McQuewan*, 55 U.S. (14 How.) 539, 549 (1852) (“The franchise which the patent grants, consists altogether in the right to exclude every one from making, using, or vending the thing patented, without the permission of the patentee. This is all that he obtains by the patent.”).

84. See Nard, *supra* note 57, at 3.

85. Theories of patent protection, also referred to as patent theories, are “explanations for the role of patents” and statements “as to their optimal division and scope.” Burk & Lemley, *supra* note 1, at 1595.

86. *Id.*

87. See Merges & Nelson, *supra* note 1, at 839-40.

88. See Ted O'Donoghue, *A Patentability Requirement for Sequential Innovation*, 29 RAND J. ECON. 654, 657 (1998).

89. See Burk & Lemley, *supra* note 1, at 1595-615 (summarizing competing patent theories).

90. See *id.* at 1580.

By defining the patent's exclusionary power, the patent claim thus performs an important substantive function in patent law. The claim is utilized to establish the borders of protection, which in turn are referenced to decide whether a competitor can be excluded or a patent is worthy of protection. The patent claim's central role in these decisions places it at the center of substantive patent decisions and patent theories.

II. PATENT CLAIM INTERPRETATION METHODOLOGIES

For a patent claim to perform either of the functions described above, a patent claim must be given meaning; it must be interpreted.⁹¹ Once interpreted, the public is notified fully of the patented invention. The claim meaning provides observers with a better understanding of the patent. In addition, claim interpretation establishes the substantive boundaries of the patent's protection. Defining claim terms establishes the edges of the exclusivity provided by the patent.

Courts possess tremendous discretion in how to interpret claims. Consequently, different claim interpretation methodologies have emerged. This Part will introduce the basics of claim interpretation upon which methodologies are based. Both the tools used in interpretation and the canons governing these tools will be discussed. A general agreement exists about the universe of information sources one can use when interpreting claims. The difference between methodologies is usually introduced in the selection of various canons governing the use of these information sources. The most common variation among interpretation approaches—the use of the specification—will be examined.

This Part will conclude by looking at the two claim interpretation methodologies that the Federal Circuit considered in *Phillips III*. The difference between these two methodologies results from differing views on the specification's role in claim interpretation. These differences expand to include dissimilarities on the relationship between the specification, claims, and extrinsic definitional sources, such as dictionaries. Both methodologies are exemplified in

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

the Federal Circuit's panel decision in *Phillips v. AWH Corp.* (*Phillips I*).⁹² The majority and dissent's disagreement over these methodologies in *Phillips I* forms the basis of the en banc decision in *Phillips III*.⁹³

A. Claim Interpretation Basics

Claim interpretation, also known as claim construction, involves defining a claim term or terms to determine the claim's exact meaning.⁹⁴ Once a claim's meaning is determined, the exact location of the patent's metes and bounds are known and infringement or validity issues can be determined.⁹⁵ Claim interpretation places the claim in context for the particular patent dispute at issue.⁹⁶ Interpreting claim terms is the starting point to answering these fundamental patent questions.⁹⁷ Claim interpretation is, therefore, the first step in any patent inquiry,⁹⁸ and in most patent cases it is also the stopping point.⁹⁹

92. See *Phillips v. AWH Corp. (Phillips I)*, 363 F.3d 1207 (Fed. Cir. 2004), *vacated*, 376 F.3d 1382 (Fed. Cir. 2004) (en banc).

93. See *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *2-3 (Fed. Cir. July 12, 2005) (en banc) (discussing the *Phillips I* decision's two approaches to claim interpretation). The dispute between these two methodologies did not start with the *Phillips I* decision. The dispute can be traced at least as far back as Federal Circuit jurisprudence after the Supreme Court's decision in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996). See *Wagner & Petherbridge*, *supra* note 10, at 1111, 1133-34 (discussing two distinct methodologies that have emerged since the Supreme Court's decision in *Markman* that differ, at least in part, in how they use specification). The two methodologies have, however, crystallized over the course of the last ten years. *Id.*

94. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996) (stating that the first step in the infringement analysis is "commonly known as claim construction or interpretation").

95. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 374 (1996) ("Victory in an infringement suit requires a finding that the patent claim 'covers the alleged infringer's product or process,' which in turn necessitates a determination of 'what the words in the claim mean.'") (quoting H. SCHWARTZ, *PATENT LAW AND PRACTICE* 80 (2d ed. 1995)); *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1347 (Fed. Cir. 2001); *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001) (noting that claim construction is the first step in a validity analysis).

96. *Wagner & Petherbridge*, *supra* note 10, at 1119.

97. *Id.* (noting that, while still a matter of debate, "it is clear that claim construction plays a major—and perhaps the major—role in patent infringement litigation"); *Nard*, *supra* note 57, at 4 (noting that claim interpretation "lies at the heart of our patent system").

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

99. *Markman*, 52 F.3d at 993 (Mayer, J., concurring). "Where the parties do not dispute

Although some basic doctrines exist that govern how claims are interpreted, courts currently maintain a wide range of discretion when construing patent claims. No statute indicates the exact procedure for claim interpretation.¹⁰⁰ Moreover, no recognized constitutional restraints exist that dictate a particular approach to construction.¹⁰¹ Statutory law indicates what must appear in the patent document and requires the claims to define the invention,¹⁰² but does not expressly instruct courts on how to approach defining claim terms. This wide room for discretion allows for the development of different claim interpretation methodologies.¹⁰³

Any patent claim interpretation methodology consists of two basic parts. The first entails defining a group of eligible interpretative sources.¹⁰⁴ The universe of interpretative sources identifies which materials one may look to when determining a claim's meaning. The second aspect of any interpretation methodology consists of using a set of canons of interpretation.¹⁰⁵ These canons govern how the interpretative sources are used to determine a claim term's

any relevant facts regarding the accused product ... but disagree over possible claim interpretations, the question of literal infringement collapses into claim construction and is amenable to summary judgment." *Gen. Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 983 (Fed. Cir. 1997). Parties commonly stipulate to the outcome of issues of infringement or validity once a court issues its claim interpretation. *See Housey Pharms., Inc. v. Astrazeneca UK Ltd.*, 366 F.3d 1348, 1349 (Fed. Cir. 2004) (indicating that the patentee stipulated that if the district court's construction "were not reversed or modified on appeal, its patents would be invalid and not infringed"). In fact, a court's claim construction often prompts settlement in patent cases. Patent Litig. Comm. of the Am. Intellectual Prop. Law Ass'n, *The Interpretation of Patent Claims*, 32 AM. INTEL. PRÓP. L. ASSOC. Q.J. 1, 5 (2004) ("Given the great impact claim construction may have on the outcome of a case, the court's construction of the claims of a patent may be case dispositive or drastically affect the prospect of settlement.").

100. *See, e.g.*, 35 U.S.C. § 112 (2000) (stating that a single patent claim is required, but not indicating how that claim should be interpreted).

101. *But see* Antonin Scalia, *Common-Law Courts in a Civil Law System: The Role of the United States Federal Courts in Interpreting the Constitution and Law*, in A MATTER OF INTERPRETATION 3, 9-13, 34-35 (Amy Gutmann ed., 1997) (arguing that the Constitution's separation of powers requires a specific method of statutory interpretation).

102. *See* 35 U.S.C. § 112 (2000).

103. *See* *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *4 (Fed. Cir. July 12, 2005) (noting that 35 U.S.C. § 112 requires the specification and claims be related, but does not answer "the extent to which we should resort to and rely on a patent's specification in seeking to ascertain the proper scope of its claims").

104. *See* ROBERT P. MERGES ET AL., *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE* 216-20 (3d ed. 2003) (detailing the commonly used interpretative sources in patent cases).

105. *See id.* at 220-22 (describing four major canons of patent claim interpretation).

meaning.¹⁰⁶ The universe of interpretative sources that courts use to interpret claims is well defined and fairly uncontroversial.¹⁰⁷ The canons that govern these interpretative sources, in contrast, form the foundation for the differences between most approaches.

1. Interpretative Sources

The interpretative sources utilized in claim interpretation fall into two general categories. The first category includes three sources identified as "intrinsic evidence."¹⁰⁸ These three sources constitute intrinsic evidence because they are publicly available and unique to the patent under construction.¹⁰⁹ In other words, they comprise part of the patent being interpreted.¹¹⁰

The claim language is intrinsic evidence.¹¹¹ The claim's words seek to define the patented invention's scope.¹¹² Because the claim is what is being interpreted, the language contained therein should play a role in its own interpretation.¹¹³ The specification accompanying the claim being interpreted is also an intrinsic interpretative source¹¹⁴ because, by definition, it is contained in the same public patent as the claims and must describe the claimed invention.¹¹⁵ Thus, the specification is eligible as a source from which one can discern a claim's meaning.¹¹⁶ The third and final piece of intrinsic evidence is the patent's prosecution history.¹¹⁷ The prosecution history is a record of all proceedings before the USPTO regarding the patent.¹¹⁸ This history is publicly available and

106. *See id.* at 216.

107. *But see* John R. Thomas, *On Preparatory Texts and Proprietary Technologies: The Place of Prosecution Histories in Patent Claim Interpretation*, 47 UCLA L. REV. 183 (1999) (arguing that prosecution history should not be referenced during claim construction).

108. *Vitronics Corp. v. Conception, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

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

110. *Vitronics*, 90 F.3d at 1582.

111. *Id.*; *see also* *Bell Commc'ns Research, Inc. v. Vitalink Commc'ns Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995).

112. 35 U.S.C. § 112 (2000).

113. *Vitronics*, 90 F.3d at 1582.

114. *Id.*; *Autogiro Co. of Am. v. United States*, 384 F.2d 391, 397-98 (Ct. Cl. 1967).

115. 35 U.S.C. § 112 (2000); *Autogiro*, 384 F.2d at 397-98.

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

117. *Vitronics*, 90 F.3d at 1582-83.

118. *Id.*

includes correspondence between the USPTO and the patentee regarding the patent's examination prior to being issued.¹¹⁹ The prosecution history may contain the patentee's representations regarding the scope of the patent's claims.¹²⁰

"Extrinsic evidence" encompasses sources falling outside the patent's public record.¹²¹ For example, extrinsic evidence includes expert and inventor testimony, scientific articles, technical treatises, and dictionaries.¹²² These sources may be relevant to claim terms or the patent's field of technology¹²³ but they are not specific to the patent and thus cannot be deemed intrinsic.¹²⁴

2. *Canons of Interpretation*

The canons of interpretation govern how one uses the sources identified above to define claim terms.¹²⁵ Typical canons explain how an interpretative source is used to determine a claim term's meaning. For example, the canon of claim differentiation instructs courts to compare claims in the same patent to ensure that the meaning of one claim does not render another claim and its meaning redundant.¹²⁶ Claim differentiation identifies an interpretative source—the patent claims—and instructs one how to use it to arrive at a claim meaning, namely by interpreting two claims to have different meanings.

Other canons speak to the interrelationship between the different interpretative sources. Canons will establish a hierarchy among interpretative sources, indicating which source should be considered first when construing claims and whether the meaning gleaned from one source should trump the suggested meaning from another. For example, one canon instructs the construer to refer to intrinsic evidence before looking at extrinsic evidence, thereby favoring the

119. *See, e.g., Graham v. John Deere Co.*, 383 U.S. 1, 32-33 (1966).

120. *Vitronics*, 90 F.3d at 1582-83.

121. *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1216 (Fed. Cir. 1995).

122. *Vitronics*, 90 F.3d at 1584.

123. *Id.*

124. *See id.*

125. *MERGES ET AL.*, *supra* note 104, at 216.

126. *See Ecolab, Inc. v. Paraclype, Inc.*, 285 F.3d 1362, 1375 (Fed. Cir. 2002). This canon is usually employed as a presumption that "each claim in a patent is presumptively different in scope." *Intermatic Inc. v. Lamson & Sessions Co.*, 273 F.3d 1355, 1364 (Fed. Cir. 2001).

former over the latter.¹²⁷ The canon also provides that extrinsic evidence can only be used to define claim terms when a claim's meaning remains ambiguous after consulting all three forms of intrinsic evidence.¹²⁸ This interpretation canon establishes a definite hierarchy, placing intrinsic evidence before extrinsic evidence in sequence of reference and expressly limiting when extrinsic evidence can influence the ultimate claim definition.¹²⁹ Some canons have exceptions and methodologies may vary based on their observance or nonobservance of these exceptions.¹³⁰

B. Common Variation Among Methodologies: The Degree of Influence of the Specification

One of the most common variations between methodologies is how they use the specification when interpreting claim language. Specifically, this variation involves the degree of influence that information in the specification can have on the resulting interpretation. Some methodologies ensure that the specification is referenced, and its teachings used to influence, a claim term's definition in every interpretation. In other methodologies, the specification is referred to in limited circumstances and, in turn, its teachings will rarely inform the resulting construction. This variation stems from two often cited and conflicting interpretation canons: the canon to read the claims in light of the specification, and the canon prohibiting reading limitations from the specification into the claims. These two canons, the tension between them, and the resulting common

127. See *Vitronics*, 90 F.3d at 1583-84.

128. *Id.*; see also *Hormone Research Found., Inc. v. Genentech, Inc.*, 904 F.2d 1558, 1562 (Fed. Cir. 1990).

129. See *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1216 (Fed. Cir. 1995) ("In construing the claims we look to the language of the claims, the specification, and the prosecution history. Extrinsic evidence may also be considered, if needed to assist in determining the meaning or scope of technical terms in the claims.") (citations omitted).

130. For example, some methodologies, while abiding by the canon favoring intrinsic evidence, will still refer to dictionaries, an extrinsic source, before referencing intrinsic evidence. See *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202-03 (Fed. Cir. 2002) (discussing how dictionaries, encyclopedias, and treatises should be consulted initially when interpreting claims, even though a prohibition exists against referring to extrinsic evidence so early in the interpretation process); *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308-09 (Fed. Cir. 1999) (explaining that courts can examine extrinsic evidence, even when the patent is unambiguous, to understand the underlying technology).

variation among methodologies will be explored below. However, before this discussion, a brief understanding of the specification's contents is necessary.

1. Patent Specification

A patent specification includes three basic elements: a written description, an enabling description, and the best mode.¹³¹ All three elements focus on the invention and, in particular, the invention recited in the patent claims.¹³² The invention that the specification must describe and enable is the invention that the patent claims define.¹³³ Through the written description requirement, the specification must include a reasonably detailed textual description of the claimed invention.¹³⁴ The enablement requirement asks the inventor to set forth a working embodiment of the claimed invention in the specification.¹³⁵

The written description element requires the patentee to describe the invention in sufficient detail to convey with reasonable clarity to a person skilled in the art that the patentee was in possession of the invention on the patent's filing date.¹³⁶ The specification must

131. 35 U.S.C. § 112 (2000). This Article's discussion regarding the specification requirements will focus on only the written description and enablement requirements.

132. See *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 968 (Fed. Cir. 2002) (noting that the patent specification must "describe the claimed invention so that one skilled in the art can recognize what is claimed").

133. See *Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1253 (Fed. Cir. 2004); *Enzo Biochem*, 323 F.3d at 968; *In re Wright*, 999 F.2d 1557, 1561 (Fed. Cir. 1993); *In re Hyatt*, 708 F.2d 712, 714 (Fed. Cir. 1983) ("[T]he enabling disclosure of the specification [must] be commensurate in scope with the claim under consideration.").

134. 35 U.S.C. § 112 (2000); *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1158 (Fed. Cir. 1998). Currently, much debate exists about whether there is a written description requirement distinct from the enablement requirement. See *Univ. of Rochester v. G.D. Searle & Co.*, 375 F.3d 1303, 1304 (Fed. Cir. 2004) (Newman, J., dissenting from denial of petition for rehearing en banc); see also Mark D. Janis, *On Courts Herding Cats: Contending with the "Written Description" Requirement (and Other Unruly Patent Disclosure Doctrines)*, 2 WASH. U. J.L. & POLY 55, 61-69 (2000) (arguing that "the distinction between the written description and enablement requirements is artificial").

135. 35 U.S.C. § 112 (2000); *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366 (Fed. Cir. 2004).

136. 35 U.S.C. § 112 (2000); *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1320-21 (Fed. Cir. 2003); *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562-63 (Fed. Cir. 1991); *Ralston Purina Co. v. Far-Mar-Co*, 772 F.2d 1570, 1575 (Fed. Cir. 1985); *In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983).

include enough information, through text and/or drawings, to show a skilled artisan that the patentee knew of the patented invention when the patent's application was filed with the USPTO.¹³⁷ Therefore, the specification must describe the universe of inventions the patentee may decide to claim.¹³⁸ The description requirement prevents the patentee from patenting something the patentee has not demonstrated to the public as having been invented by the patent's filing date.¹³⁹

The enablement element, in contrast, requires the specification to disclose "the manner and process of making and using [the invention], in such full, clear, concise, and exact terms as to enable any person skilled in the art to which [the invention] pertains, or with which [the invention] is most nearly connected, to make and use the same"¹⁴⁰ The specification must provide the public with enough information to enable the practice of the claimed invention.¹⁴¹ Although the specification need not disclose every possible embodiment of the claimed invention, it must provide enough detail to enable a person of ordinary skill in the art to practice the full breadth of the patent's claims.¹⁴² The teachings can require some experimentation on the skilled artisan's part, as long as "undue experimentation" is not required.¹⁴³

137. See *Vas-Cath*, 935 F.2d at 1561; see also *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997) (noting that the written description requirement may be satisfied with "words, structures, figures, diagrams, formulas, etc.>").

138. *Vas-Cath*, 935 F.2d at 1560-62. The written description requirement was meant initially to ensure that the specification defined the patented invention. *Evans v. Eaton*, 20 U.S. (7 Wheat.) 356, 430-33 (1822). Patent claims have since taken over this task. See *supra* notes 52-56 and accompanying text.

139. See *Rengo Co. v. Molins Mach. Co.*, 657 F.2d 535, 551 (3d Cir. 1981) (noting that the requirement "guards against the inventor's overreaching" by having the specification describe the full breadth of her "original creation" at the time of filing); see also *In re Gosteli*, 872 F.2d 1008, 1012 (Fed. Cir. 1989) ("Although [the patentee] does not have to describe exactly the subject matter claimed, the description must clearly allow persons of ordinary skill in the art to recognize that [the patentee] invented what is claimed.") (citation omitted).

140. 35 U.S.C. § 112 (2000). The specification must also include the best mode of practicing the patented invention the inventor contemplated at the patent's filing. *Id.*; *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 963 (Fed. Cir. 2001).

141. *Engel Indus., Inc. v. Lockformer Co.*, 946 F.2d 1528, 1533 (Fed. Cir. 1991).

142. See *id.*; *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1241 (Fed. Cir. 2003); *In re Wright*, 999 F.2d 1557, 1561 (Fed. Cir. 1993).

143. *Wright*, 999 F.2d at 1561; *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

The enablement requirement, like the written description requirement, forces the patentee to provide details about the invention the patentee wishes to claim. To be enabling, the specification must include technical information, and possibly drawings, showing how a skilled artisan can actually implement the claimed invention.¹⁴⁴ The specification may include a list of materials used to make the invention, instructions on how to operate the invention, or details on the environments in which the invention should work. The specification usually includes specific working examples of the invention termed “embodiments” of the invention.¹⁴⁵ The enablement requirement creates a specification that teaches its intended audience—those skilled in the relevant art—how to actually practice the claimed invention.

Because of these two requirements, a patent’s specification is required to contain information about the patentee’s invention. The specification must describe the invention, pursuant to the written description requirement, and enable its use, pursuant to the enablement requirement. These requirements ensure that the specification is rich with invention-specific information, containing a textual description of the patentee’s invention and enough technical information to enable the use of the patentee’s invention.

Notably, a specification’s teachings do not end with the specification’s text and drawings. The specification is written to a particular audience, namely a person having ordinary skill in the art.¹⁴⁶ This individual brings knowledge and skill to bear on the specification’s teachings¹⁴⁷ and thus a description of one way to implement the invention may disclose a multitude of variations to a skilled artisan.¹⁴⁸ For example, the specification need not teach

144. *CFMT, Inc. v. Yieldup Int’l Corp.*, 349 F.3d 1333, 1338 (Fed. Cir. 2003).

145. Although most patents include working examples to enable the patented invention, such examples are not explicitly required. See *In re Borkowski*, 422 F.2d 904, 908 (C.C.P.A. 1970).

146. See Kevin S. Rhoades, *The Section 112 “Description Requirement”—A Misbegotten Provision Confirmed*, 74 J. PAT. & TRADEMARK OFF. SOC’Y 869, 893-94 (1992) (noting that those skilled in the art are “the specification’s audience”).

147. See *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1534 (Fed. Cir. 1987) (noting that “[a] patent need not teach, and preferably omits, what is well known in the art”); Scott R. Boalick, *Patent Quality and the Dedication Rule*, 11 J. INTELL. PROP. L. 215, 228-29 (2004).

148. See *In re Howarth*, 654 F.2d 103, 105 (C.C.P.A. 1981) (“An inventor need not, however, explain every detail since he is speaking to those skilled in the art.”).

how to make or use something as well-known as a bolt for fastening two items together, but the specification also need not teach those substitutes for a bolt that are well known in the art, such as a nail or screw.¹⁴⁹ The extent of the specification's teachings go beyond its literal contents, expanded by the knowledge and skill of the specification's intended audience, a person with ordinary skill in the relevant art.¹⁵⁰

Figure 1, below, depicts the specification's teachings. Notably, the "literal patent specification," that is, what the specification exactly says and shows, is supplemented with the skill in the art as of the patent's filing date.¹⁵¹ This additional knowledge expands the specification's teachings about the invention, creating what will be termed the "constructive patent specification." This constructive specification embodies the full extent of the specification's teachings about the invention and is labeled the "disclosed invention."

149. The disclosure requirements

permit[] resort to material outside of the specification in order to satisfy the enablement portion of the statute because it makes no sense to encumber the specification of a patent with all the knowledge of the past concerning how to make and use the claimed invention. One skilled in the art knows how to make and use a bolt, a wheel, a gear, a transistor, or a known chemical starting material. The specification would be of enormous and unnecessary length if one had to literally reinvent and describe the wheel.

Atmel Corp. v. Info. Storage Devices, Inc. 198 F.3d 1374, 1382 (Fed. Cir. 1999).

150.

That is not to say that the specification itself must necessarily describe how to make and use every possible variant of the claimed invention, for the artisan's knowledge of the prior art and routine experimentation can often fill gaps, interpolate between embodiments, and perhaps even extrapolate beyond the disclosed embodiments, depending upon the predictability of the art.

AK Steel Corp. v. Sallac, 344 F.3d 1234-44 (Fed. Cir. 2003); *see also In re Gay*, 309 F.2d 769, 774 (C.C.P.A. 1962) (noting the appreciation by one skilled in the art of aspects in the not explicitly disclosed specification).

151. *See In re Wertheim*, 646 F.2d 527, 530 (C.C.P.A. 1981) (noting that the specification teachings are frozen as of the patent's filing date). Although not visually depicted in Figure 1, the specification's literal teachings are also supplemented with experimentation by the skilled artisan that is not undue. *See AK Steel*, 344 F.3d at 1244.

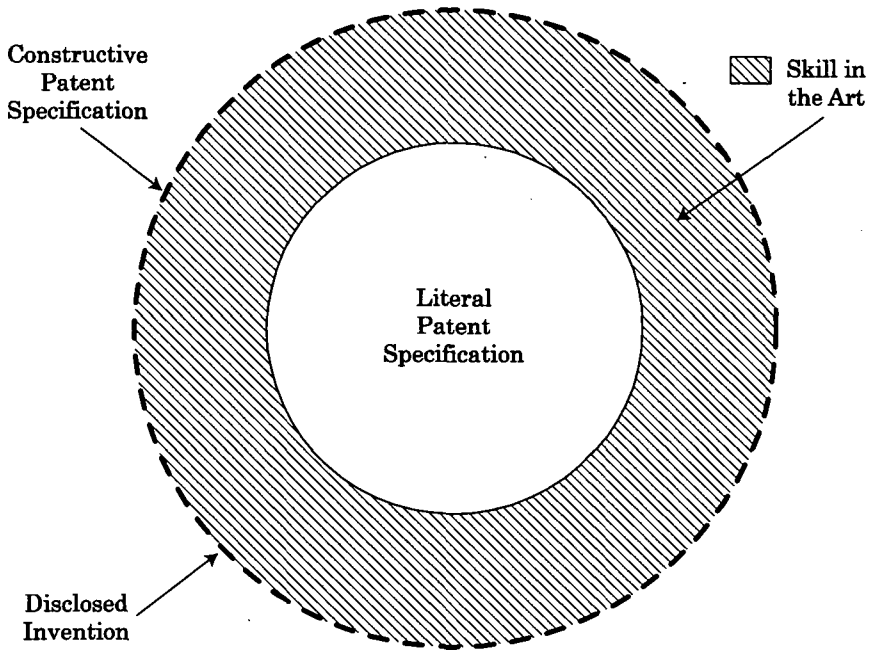


Figure 1

2. Use of the Specification in Claim Interpretation

The specification is considered intrinsic evidence and a well-recognized information source for claim interpretation. However, the specification's exact usage in the construction of patent claims is not as clear. In fact, the specification's different uses in claim construction can conflict with one another, forcing a methodology to choose one use over the other.

Two often cited interpretation canons illustrate the friction surrounding the specification's use in construing claims.¹⁵² One canon notes that claim language is "read in light of the specification" during construction.¹⁵³ A claim's meaning should be informed by the information contained in the accompanying specification. The

152. Others have noted the tension between these two canons. See Romary & Michelsohn, *supra* note 15, at 1897-926; Wagner & Petherbridge, *supra* note 10, at 1133.

153. *Slimfold Mfg. Co. v. Kinkead Indus., Inc.*, 810 F.2d 1113, 1116 (Fed. Cir. 1987).

rationale behind this canon finds its roots in the statutory linkage between the specification's contents and the claimed invention.¹⁵⁴ The patent is an "integrated document," with the specification further describing the subject matter that the claims recite.¹⁵⁵ As such, the specification describes the claimed invention and can place the claimed invention in context.¹⁵⁶ Doing so helps one understand how a person of ordinary skill in the relevant art would interpret the claims.¹⁵⁷ Therefore, consulting the specification during claim interpretation is both beneficial and logical.

In contrast, another canon indicates that limitations from the specification should not be read into the claims.¹⁵⁸ A claim term's meaning should not be altered or changed by the specification's statements. This canon is based on the view that if the specification dictates the definition of the patent's scope of exclusivity, the patent claims no longer play their statutory role in patent law. The patent claims, not the specification, are charged with the task of "particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."¹⁵⁹ If limitations from the specification are allowed to control the claim language's meaning, the claim's statutorily charged function is frustrated. For these reasons, this canon instructs against changing a claim's meaning based on the specification's teachings.

These two canons can coexist. A claim term's meaning can be informed, but not improperly limited, by the specification. Combining the canons establishes the patent claim as the ultimate informer of a claim's meaning, while recognizing that the claim does not exist in a vacuum in the patent document; other information about the invention exists in the specification.¹⁶⁰ Courts have attempted to flush out the relationship between the canons by explaining the

154. See 35 U.S.C. § 112 (2000).

155. *Astrazeneca AB v. Mutual Pharm. Co.*, 384 F.3d 1333, 1337 (Fed. Cir. 2004).

156. *On-Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GMBH*, 386 F.3d 1133, 1138 (Fed. Cir. 2004).

157. *United States v. Adams*, 383 U.S. 39, 49 (1966); *Astrazeneca*, 384 F.3d at 1337 (Fed. Cir. 2004); *Vanderlande Indus. Nederland BV v. Int'l Trade Comm'n*, 366 F.3d 1311, 1318 (Fed. Cir. 2004).

158. *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1053 (Fed. Cir. 1989).

159. 35 U.S.C. § 112 (2000).

160. See *Renishaw PLC v. Marposh Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998) (noting that both canons share similar underlying principles); *Wagner & Petherbridge*, *supra* note 10, at 1133.

particular instances where specification information can be used. For example, if the patentee defines a claim term expressly in the specification, that definition can be used when interpreting the claims without violating the canon regarding improperly reading in limitations from the specification.¹⁶¹

As the Federal Circuit, academics, and practitioners recognize, however, a real tension exists in practice between these two canons.¹⁶² The exact point at which referencing the specification during interpretation changes from properly “reading the claims in light of specification” to improperly “reading limitation from the specification into the claims” is impossible to identify with any specificity.¹⁶³ A “fine line” exists that divides the two canons,¹⁶⁴ and often that line becomes blurred and undefinable. How does one allow the specification to inform the claim interpretation process without placing any limits on claim terms? Distinguishing between “reading in light of” an informational source and “reading in limitation from” that same source is difficult.¹⁶⁵

Because of the tension between these two canons, courts tend to adopt claim interpretation methodologies that lean towards one canon or the other. A given methodology will either allow the specification to play a significant role during claim construction or will have the specification play little or no role at all. The specification’s influence depends on whether the court wants to ensure that the claims are read in the context of the specification or wants to ensure that limitations are not read in from the specification. Depending on which canon a court attempts to observe in its interpretative approach, the specification may have a large or small influence on the resulting definition. This is depicted graphically on a spectrum in Figure 2 below. The two canons are at each end of the spectrum and the specification’s influence on the resulting claim

161. See *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed. Cir. 2001).

162. See *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186-87 (Fed. Cir. 1998); *Wagner & Petherbridge*, *supra* note 10, at 1133.

163. See 1 DONALD S. CHISUM, *CHISUM ON PATENTS* § 3.02[1][g][ii][B] & n.83 (97th release 2005) (“The line between interpreting claim language in light of the specification and reading a limitation from the specification into the claim is a fine one.”).

164. See *Comark Commc’ns*, 156 F.3d at 1186-87.

165. As *Wagner and Petherbridge* put it, “at what point does an appropriately contextual analysis spill over into impermissible importation of meaning into the claims?” *Wagner & Petherbridge*, *supra* note 10, at 1133.

definition decreases as a court moves from left to right, that is, away from the first canon and towards the second.

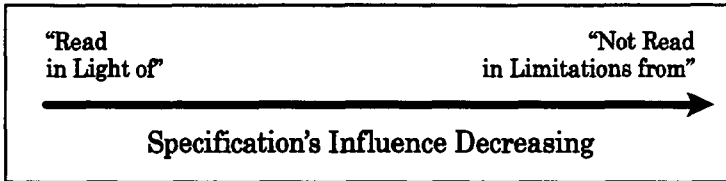


Figure 2

Although no current claim interpretation methodology sits at either end of the spectrum, methodologies do occupy areas in between. To provide further examples of how using different canons results in different interpretation methodologies, the two most utilized methodologies, which the Federal Circuit examined en banc in *Phillips III*,¹⁶⁶ will now be explored.

C. Majority and Dissent in the Phillips v. AWH Corporation Panel Decision: An Example of Two Different Claim Interpretation Methodologies

The majority's and dissent's opinions in the Federal Circuit's panel opinion in *Phillips I* provide a good example of methodologies that use the specification in different ways.¹⁶⁷ The majority refers to the whole specification early in the claim construction process, using all of the information contained therein to inform its definition of the claim term at issue. The majority's approach favors the canon of reading the claims in light of the specification. This methodology sits towards the left, that is, the "read in light of" end of the spectrum in Figure 2. In contrast, the dissent relies little on the specification's teachings, employing a heavy presumption in

166. *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *2-3 (Fed. Cir. July 12, 2005) (en banc).

167. The fact that the majority and dissent in *Phillips I* provide such good examples of two distinct interpretation methodologies most likely played a significant role in the Federal Circuit's choice to take the *Phillips* case en banc.

favor of the ordinary meaning of the patent's claim language, as derived preferably from a dictionary, when construing the claim language. The dissent therefore sits closer to the right, that is, the "not read limitation in from" end of the spectrum in Figure 2. Both of the methodologies employed in *Phillips I* and analyzed in *Phillips III* will be described in more detail below.

1. *The Majority's Methodology's Full and Early Use of the Specification*

The Federal Circuit's majority panel decision in *Phillips I* provides a good example of a claim interpretation approach that uses the specification's teachings fully and early in the process.¹⁶⁸ The patent at issue in *Phillips I* concerned fire, sound, and impact resistant modular wall panels.¹⁶⁹ These modular panels are used to construct detention facilities, such as jails, vaults, or safety barriers.¹⁷⁰ As the patent claim's preamble details, the claimed "[b]uilding modules [are] adapted to fit together for construction of fire, sound and impact resistant security barriers and rooms for use in securing records and persons"¹⁷¹ Edward Phillips, the named inventor and owner of the patent, sued AWH Corporation for infringement of his patent on vandalism-resistant building modules.¹⁷²

168. 363 F.3d 1207 (Fed. Cir. 2004), *vacated*, 376 F.3d 1382 (Fed. Cir. 2004) (en banc). This full and early use of the specification can be considered part, but not all, of the "holistic approach" identified by other commentators. See Barney, *supra* note 13, at 105-06 (identifying the holistic approach to claim construction); Wagner & Petherbridge, *supra* note 10, at 1133-36 (same). In the interest of avoiding unnecessary confusion, this Article does not use the term "holistic approach" to identify the methodology currently under discussion.

169. *Phillips I*, 363 F.3d at 1209 (noting that the patent at issue was U.S. Patent No. 4,677,798) (filed Apr. 14, 1986) (issued July 7, 1987).

170. *Id.*

171. *Id.* at 1209-10 (quoting U.S. Patent No. 4,677,798 (filed Apr. 14, 1986) (issued July 7, 1987)). Claim preambles do not always limit a claim's scope. See *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1350 (Fed. Cir. 1998). However, preambles can provide a better understanding of the invention being claimed. See *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1362 (Fed. Cir. 2004) ("A preamble may provide context for claim construction").

172. *Phillips I*, 363 F.3d at 1210.

On appeal, Mr. Phillips and AWH Corporation disputed the meaning of the claim term “baffles.”¹⁷³ The claims at issue use the term “baffles” in their detailing of the “internal steel *baffles* extending inwardly from the steel shell walls” of the claimed modular building panels.¹⁷⁴ The claimed “baffles” reside inside the invention’s steel shell that is comprised of two outer steel plate panel sections that form the building panels.¹⁷⁵ Mr. Phillips asserted that “baffles” should be given “its ordinary and customary meaning.”¹⁷⁶ Mr. Phillips argued that “baffles” should mean something “obstructing, impeding, or checking the flow of something.”¹⁷⁷ Mr. Phillips next asserted that the “heavy presumption” in favor of this ordinary meaning was “not clearly and unequivocally rebutted,”¹⁷⁸ and therefore, additional limitations to the term “baffles” should not be read in from the patent’s specification.¹⁷⁹

AWH asked the Federal Circuit to construe the term “baffles” to reflect the teachings in the patent’s specification.¹⁸⁰ AWH asserted that the district court “properly looked to the specification to determine the scope of the claimed invention.”¹⁸¹ The specification, AWH argued, emphasized “the key innovative feature of the invention,” namely, the “baffle configuration, including both the angled orientation and the interlocking pattern limitations” of the

173. *Id.* at 1210-11.

174. *Id.* at 1209-10 (quoting U.S. Patent No. 4,677,798 (filed Apr. 14, 1986) (issued July 7, 1987)) (emphasis added). Mr. Phillips asserted claims 1, 21, 22, 24, 25, and 26 of his patent against AWH, all of which included the “baffles” element. *Id.* at 1210.

175. *Id.* at 1209-10.

176. *Id.* at 1211.

177. *Id.* at 1210. Interestingly, both Mr. Phillips and AWH stipulated to this ordinary meaning before the district court. *Id.* The district court, however, found the claim language to be drafted in means-plus-function format and, therefore, governed by 35 U.S.C. § 112 (2000). *Id.* The district court’s claim interpretation limited the meaning of baffles to the structures disclosed in the specification and their equivalents, which required the baffles to “extend inward from the shell walls at oblique or acute angles” and “form an intermediate, interlocking barrier in the interior of the wall module.” *Id.* Mr. Phillips conceded noninfringement under this construction and, thus, appealed the construction. *Id.* at 1210-11.

178. *Id.* at 1211.

179. *Id.* These additional limitations, Mr. Phillips contested, were that the baffles “must be positioned at an acute or obtuse angle to wall faces, and that baffles must form an intermediate, interlocking barrier.” *Id.*

180. *Id.* at 1211-12. AWH supported the district court’s opinion that, while finding the claim language to be drafted in means-plus-function language, included limitations discerned from the specification’s teachings. *Id.*

181. *Id.* at 1211.

claimed baffles inside the modular panel's steel shell.¹⁸² Therefore, the claims' scope should be construed to include baffles with angle orientations and interlocking patterns to facilitate the building module's impact-resistant characteristics.¹⁸³

The majority in *Phillips I* proceeded to construe the term "baffles" by fully referring to the specification early in the interpretation process. The majority agreed with AWH, finding the specification particularly enlightening about the meaning of the claim term "baffles."¹⁸⁴ The court looked to the specification to determine the term's meaning "in the context of the entirety of [Mr. Phillips'] invention."¹⁸⁵ The court found the specification "rife with references" to the claimed building modules' impact-resistant properties.¹⁸⁶ In particular, the court focused on the specification's descriptions of the baffles as being "disposed at such angles that bullets which might penetrate outer steel panels [would be] deflected."¹⁸⁷ The baffles' angular position is shown further in the patent's drawings, depicting the baffles "disposed at angles which tend to deflect the bullets."¹⁸⁸ The court also noted that the patent's specification does not depict or describe the baffles at a ninety-degree angle, which cannot deflect projectiles directed at the building module.¹⁸⁹ The majority concluded that the term "baffles" used in the asserted claim must include baffles angled at degrees other than ninety degrees.¹⁹⁰ As the court articulated, "[i]t is impossible to derive anything else from the specification."¹⁹¹

182. *Id.* at 1212.

183. *Id.* at 1211-12.

184. *Id.* at 1212.

185. *Id.* at 1213 (quoting *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998)).

186. *Id.* The court noted that "[i]n the section marked 'Disclosure of the Invention,' the patentee states that the baffles are 'disposed at such angles that bullets which might penetrate the outer steel panels are deflected.'" *Id.* (quoting U.S. Patent No. 4,677,798 (filed Apr. 14, 1986) (issued July 7, 1987)).

187. *Id.* (quoting U.S. Patent No. 4,677,798 (filed Apr. 14, 1986) (issued July 7, 1987)).

188. *Id.* (quoting U.S. Patent No. 4,677,798 (filed Apr. 14, 1986) (issued July 7, 1987)). In particular, the court pointed to Figures 6 and 12 of the patent, which are described as showing the angular nature of the baffles that deflects bullets that can penetrate the steel shell of the invented building panels. *Id.*

189. *Id.* at 1213-14.

190. *Id.* at 1214.

191. *Id.* The majority noted that the patentee stated, at the end of the specification, that the "invention has advanced the art by providing modular buildings and modules of high

The court concluded its claim interpretation analysis by summarizing the methodology it employed:

It is true that claims with the non-restrictive term “baffles” were allowed. However, the patent specification is intended to support and inform the claims, and here it makes it unmistakably clear that the invention involves baffles angled at other than 90°. It is in the interests of a sound patent system and inventors, as well as the public, to hold inventors to their disclosures. The trial judge correctly perceived this need ... and interpreted the claims in accordance with the specification.¹⁹²

The majority in *Phillips I* noted the claim term’s ordinary meaning at the beginning of its analysis, but immediately considered it in light of the other intrinsic evidence available, particularly the specification.¹⁹³ The court attempted to follow the interpretation canon requiring patent claims to be read in the context of all of the specification’s teachings. The court did not favor a claim term’s ordinary meaning over other intrinsic evidence or employ any presumption for one type of interpretative source over another.¹⁹⁴ The specification, and its meaning to those skilled in the art, was investigated with great detail to determine how the claim term at issue fit within the described invention’s scope.

The majority did, however, try to limit the specification’s influence on the claim’s definition. Only information about the “invention” in the specification was used to construe the claim language.¹⁹⁵ Although the full specification was examined early in the process, only those parts relevant to the invention were used. In trying to narrow its use of the specification, the majority’s methodology gave some credence, albeit very little, to the interpretation canon against reading in limitations from the specification.

strength [and] bullet resistance,’ adding that ‘[u]niquely the advantages of steel shell modules are combined with thermal and acoustical isolation of two spaced walls and protection against bullet penetration of the walls.’” *Id.* at 1213 (quoting U.S. Patent No. 4,677,798 (filed Apr. 14, 1986) (issued July 7, 1987)) (alterations in original).

192. *Id.* at 1214.

193. *Id.* at 1212-13.

194. *Id.* at 1212-14. A dictionary was used to determine whether the term “baffles” did not recite any structure and, therefore, was means-plus-function language. *Id.* at 1212. A dictionary did not, however, provide the meaning of the term “baffles” that the majority adopted.

195. *Id.* at 1212-14.

The methodology's full and early use of the specification clearly leans toward using more rather than less of the specification when interpreting claims. The majority's approach allows the full extent of the specification's teachings to have a significant influence on the resulting claim interpretation. This places the methodology near the left end of the spectrum in Figure 2. From this point forward, this Article will refer to this methodology as the "specification methodology."¹⁹⁶

2. *The Dissent's Methodology's Heavy Presumption in Favor of Dictionaries*

The dissent's claim analysis in *Phillips I* exemplifies a methodology that does not allow the specification to influence greatly the resulting interpretation. Instead, the ordinary meaning of the claim term at issue is favored by utilizing a heavy presumption toward the term's dictionary definition.¹⁹⁷ The dissent implemented this methodology by first identifying the disputed claim term's ordinary meaning.¹⁹⁸ The ordinary meaning was taken from a dictionary, in this case the 2002 edition of *Webster's Third New International Dictionary*.¹⁹⁹ The dissent then looked for evidence that would overcome the heavy presumption favoring this ordinary meaning and that would warrant the inclusion of the angle orientation limitation in its claim interpretation of "baffles," as AWH suggested.²⁰⁰

The dissent looked to the specification to discern whether "the patentee, acting as his own lexicographer, gave a special meaning to the term baffles."²⁰¹ The dissent found nothing to indicate that the patentee affirmatively redefined the term "baffles" to be limited to

196. The methodology is given this name to emphasize the specification-centric approach.

197. The heavy presumption in favor of ordinary meaning can be considered part, but not all, of the "procedural approach" identified by other commentators. See Barney, *supra* note 13, at 103-06 (identifying the procedural approach to claim construction); Wagner & Petherbridge, *supra* note 10, at 1133-36 (same). In the interest of avoiding unnecessary confusion, this Article does not use the term "procedural approach" to identify the methodology currently under discussion.

198. *Phillips I*, 363 F.3d at 1216-17 (Dyk, J., dissenting in part).

199. *Id.*

200. *Id.* at 1217-18 (Dyk, J., dissenting in part) (finding no support for adding further structural limitations to the ordinary meaning of "baffles").

201. *Id.* at 1217 (Dyk, J., dissenting in part).

baffles oriented at angles other than ninety degrees.²⁰² In addition, the dissent found no disclaimer as to any part of the ordinary meaning in the specification or the prosecution history.²⁰³ With this, the dissent saw nothing that suggested a deviation from the “general purpose dictionary definition” of the term “baffles” and, therefore, adopted this ordinary meaning as the correct claim construction.²⁰⁴ The claims simply require baffles, regardless of how the baffles are oriented between the steel shells of the claimed modular panels.²⁰⁵

The dissent addressed the parts of the specification that the majority relied upon in reaching its construction.²⁰⁶ The dissent viewed the majority’s approach as improperly limiting the claim language to the only disclosed embodiment in the specification.²⁰⁷ Although the only embodiment described baffles without a ninety-degree orientation, “no such language clearly limit[s] the claims to [this] specific structure.”²⁰⁸ The dissent also disputed the majority’s reading of the invention’s purpose.²⁰⁹ The specification also identified the invention as having several objectives beyond impact resistance, such as fire and sound suppression.²¹⁰ The term “baffles,” therefore, could not be limited to fulfilling only the impact resistance objective.²¹¹ Lacking clear disclaimers on any part of the ordinary meaning, the dissent concluded that the specification does not limit the dictionary definition of “baffles.”²¹²

The dissent summarized the claim interpretation methodology as follows: “Since there is no argument here that one of skill in the art would ascribe a specialized meaning to the term baffles, and there has been no disclaimer in the specification or prosecution history,

202. *Id.* at 1217-18 (Dyk, J., dissenting in part).

203. *Id.* at 1218 (Dyk, J., dissenting in part).

204. *Id.*

205. *Id.*

206. *Id.* at 1217-18 (Dyk, J., dissenting in part) (refuting the grounds upon which the majority based its interpretation).

207. *Id.* at 1217 (Dyk, J., dissenting in part) (citing Federal Circuit case law counseling against restricting claims to covering the one disclosed embodiment in the specification).

208. *Id.*

209. *Id.*

210. *Id.* at 1217-18 (Dyk, J., dissenting in part).

211. *Id.* (noting that the specification discusses the additional objectives of “high load bearing strength” and “thermal and acoustical isolation of two spaced walls”) (quoting U.S. Patent No. 4,677,798 (filed Apr. 14, 1986) (issued July 7, 1987)).

212. *Id.* at 1218 (Dyk, J., dissenting in part).

the general purpose dictionary definition, 'something for deflecting, checking, or otherwise regulating flow,' applies."²¹³

The dissent's analysis demonstrates a methodology that favors the canon against reading limitations from the specification into the claim.²¹⁴ The dissent's approach implements this canon by placing the claim language and its ordinary meaning well above any of the specification's teachings. It insulates the claim terms from the specification by using a heavy presumption in favor of an information source outside of the patent—a dictionary.

The dissent's approach still refers to the specification, presumably in an attempt to follow the canon requiring the claims to be read in light of the specification. The dissent's methodology, however, takes a restricted view of the specification and its role in claim construction. A dictionary and not the specification is consulted first to determine the claim term's ordinary meaning.²¹⁵ The dissent's methodology looks at the specification, but only to see if the heavy presumption is rebutted. The specification is examined to see if the patentee acted as her own lexicographer.²¹⁶ The heavy presumption could have been overcome if the patentee defined the claim term clearly in the specification.²¹⁷ The heavy presumption could also be overcome if a clear disclaimer of all or part of a claim term's ordinary meaning exists.²¹⁸ As the dissent's analysis demonstrates, the specification must manifest an express, affirmative disclaimer.²¹⁹

213. *Id.* (quoting WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 162 (2002)) (citations omitted).

214. In fact, the dissent claims that the majority's methodology violates this canon. *Id.* at 1217-19 (Dyk, J., dissenting in part).

215. *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1201-05 (Fed. Cir. 2002); see also Ruoyu Roy Wang, Note, *Texas Digital Systems v. Telegenix, Inc.: Toward a More Formalistic Patent Claim Construction Model*, 19 BERKELEY TECH. L.J. 153, 163-65 (2004) (noting that dictionaries should be consulted first and before the intrinsic record).

216. See *Tex. Digital*, 308 F.3d at 1204.

217. *Kumar v. Ovonic Battery Co.*, 351 F.3d 1364, 1368-70 (Fed. Cir. 2003). The heavy presumption can also be overcome if the patentee clearly defines the claim term in the prosecution history. See *id.* at 1371-72.

218. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002) ("The patentee may demonstrate an intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.").

219. *Id.*

The dissent's methodology employing a heavy presumption in favor of dictionary definitions over the specification greatly favors the canon against reading limitations from the specification into the claims. Although the approach references the specification, it does so later in the construction process and through the lens of the heavy presumption. This severely limits the influence that the specification's teachings can have on the resulting claim interpretation. Only in limited circumstances can information in the specification influence the claim's meaning.²²⁰ The dissent's approach, therefore, can be placed near the right end of the spectrum in Figure 2. From this point forward, this Article will refer to this methodology as the "heavy presumption methodology."²²¹

D. En Banc Decision in Phillips v. AWH Corporation: The Federal Circuit Selects a Claim Interpretation Methodology

On July 12, 2005, the Federal Circuit issued its en banc opinion in *Phillips v. AWH Corp.—Phillips III*.²²² As noted in the en banc order in *Phillips II*,²²³ the court took the case en banc to review the two methodologies employed in the panel opinion, *Phillips I*, and select a single claim interpretation methodology.²²⁴ The *Phillips III* decision, therefore, provides further critical discussion of claim interpretation methodology.²²⁵ In particular, the court further analyzes the two methodologies employed by the majority and dissent in *Phillips I* and applies the methodology it selects.²²⁶

The Federal Circuit initially examined the proper use of the specification and dictionaries in claim interpretation.²²⁷ After

220. See *Phillips v. AWH Corp. (Phillips I)*, 363 F.3d 1207, 1217-18 (Fed. Cir. 2004) (Dyk, J., dissenting in part) (detailing the limited circumstances under which the specification is referenced), *vacated*, 376 F.3d 1382 (Fed. Cir. 2004) (en banc).

221. The methodology is given this name because of its usage of a heavy presumption.

222. *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331 (Fed. Cir. July 12, 2005) (en banc).

223. See *Phillips v. AWH Corp. (Phillips II)*, 376 F.3d 1382, 1382-83 (Fed. Cir. 2004) (en banc).

224. See *Phillips III*, 2005 WL 1620331, at *2-4 (noting that the court took the case en banc to settle the "principle question that this case presents ... the extent to which we should resort to and rely on a patent's specification in seeking to ascertain the proper scope of its claims").

225. See *id.* at *4-16 (discussing and analyzing the different claim interpretation sources and interpretative canons).

226. See *id.*; see also *id.* at *2-3, *17-20.

227. See *id.* at *7-16.

discussing the current state of the law in the area, the Federal Circuit endorsed the specification methodology.²²⁸ The en banc opinion emphasized the importance of the specification's role in claim interpretation.²²⁹ This "importance of the specification in claim construction derives from its statutory role," specifically the requirement that the specification must describe the claimed invention.²³⁰ "It is therefore entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of the claims."²³¹

The court, in turn, explicitly rejected the heavy presumption methodology.²³² This methodology, in the court's view, "placed too much reliance on extrinsic sources such as dictionaries, treatises, and encyclopedias and too little on intrinsic sources, in particular the specification and prosecution history."²³³ The court was worried specifically because the heavy presumption methodology requires the reference to external definitional sources before any reference is made to the specification.²³⁴ Such a requirement "improperly restricts the role of the specification in claim construction" and, as a result, "focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent."²³⁵

Having adopted the specification methodology, the court then applied the methodology to the claim term "baffles."²³⁶ The court initially referenced the patent's intrinsic evidence, including the

228. *See id.* at *9, *13-15 (endorsing usage of the specification and expressly rejecting the heavy presumption in favor of dictionaries). Not all members of the court agreed with the court's adoption of the specification methodology. *See Phillips III*, 2005 WL 1620331, at *22-26 (Mayer, J., dissenting) (arguing that "any attempt to fashion a coherent standard under" the concept that claim interpretation is a matter of law "is pointless, as illustrated by our many failed attempts to do so").

229. *See Phillips III*, 2005 WL 1620331, at *7-9 (noting that the specification's important role in claim interpretation "has a long pedigree in Supreme Court decisions").

230. *See id.* at *8-9. The court also focused on the USPTO's heavy reliance on the specification during prosecution as an additional endorsement of the full use of the specification during claim interpretation. *See id.*

231. *Id.* at *9.

232. *See id.* *13-15 (rejecting the *Texas Digital* line of cases that established the heavy presumption in favor of external definitional sources).

233. *Id.* at *13

234. *Id.*

235. *Id.* at *13-14.

236. *See id.* at *17-18.

patent's claims and specification.²³⁷ The claims were seen as not specifically restricting the claimed baffles placement to any particular angle.²³⁸ The court then turned to the patent's specification.

The en banc court looked at the specification to determine how a person of ordinary skill in the art would understand the claimed "baffles."²³⁹ The court found that the specification "set[] forth multiple objectives to be served by the baffles recited in the claims."²⁴⁰ Because the disclosed invention went beyond including baffles just to deflect projectiles, the invention did not require the claimed baffles to always be at acute or obtuse angles.²⁴¹ The court concluded that, because the disclosed invention was not limited to include baffles at only angles other than ninety degrees, the claim term "baffles" should not be so limited.²⁴²

The court in *Phillips III* clearly employs the specification methodology. The Federal Circuit does not accord the dictionary definition of "baffles" a heavy presumption.²⁴³ Instead, the court follows the same approach as the majority in *Phillips I*. The intrinsic evidence, particularly the specification, is referenced early in the interpretation process, and the specification is fully examined to determine the extent of the invention disclosed to one skilled in the relevant art.

Notably, the en banc court in *Phillips III* reaches a different conclusion as to the specification's teaching about the invention than the majority in *Phillips I*.²⁴⁴ The en banc court views the extent of the specification's teachings, and thus the disclosed invention, to

237. *See id.*

238. *See id.* at *17 (noting that the claim language did not explicitly limit the angular orientation of the claimed baffles).

239. *See id.* at *17.

240. *See id.* at *17-18 (indicating that the patent's specification disclosed other functions for the claimed baffles, including provision "structural support" and "an intermediate barrier wall between the opposite [wall] faces") (citing U.S. Patent No. 4,677,798 (filed Apr. 14, 1986) (issued July 7, 1987)) (alteration in original).

241. *See id.* at *18.

242. *See id.* (noting that, in light of the breadth of the disclosed invention, "the term 'baffles' should not be read restrictively to require that the baffles in each case serve all of the recited functions").

243. *See id.* at *17. The court does cite the definition, but does not give the definition any real weight in the interpretation process. *See id.*

244. *See Phillips III*, 2005 WL 1620331, *20-22 (Lourie, J., concurring in part and dissenting in part) (noting that the en banc court used the same methodology as employed by the majority in *Phillips I*, but reached the opposite construction).

be broader than the majority in *Phillips I*. Put another way, with reference to the visual depiction of the specification's teachings in Figure 1, the court in *Phillips III* views the area of the disclosed invention to cover more area than the majority in *Phillips I*. This difference does not, however, take away from the fact that the methodology selected and applied by the en banc court in *Phillips III* is similar to the methodology employed by the majority in *Phillips I*—the specification methodology. The opinions do not differ in methodology, but in their understanding of the patent at issue.

III. EVALUATING CLAIM INTERPRETATION METHODOLOGIES

The lack of a clear statutory direction leaves methodology formulation and selection in the courts' hands. The Federal Circuit, which has exclusive jurisdiction over patent appeals,²⁴⁵ has been the most active in this area.²⁴⁶ The panel decision in *Phillips I* demonstrates the court's activities, with the majority and dissent employing two separate interpretation methodologies.²⁴⁷ The court's en banc opinion in *Phillips III* also evidences the Federal Circuit playing a major role in this area.²⁴⁸

A duty to select a single methodology has come with the discretion to create varied methodologies. The Federal Circuit assumed this duty in *Phillips III*, when it adopted a unitary methodology—the specification methodology—for itself and lower courts to use.²⁴⁹ The consistent usage of one approach to claim interpretation falls in line with the congressional mandate behind the Federal

245. See 28 U.S.C. § 1295(a)(1) (2000). *But see* *Holmes Group, Inc. v. Vornado Air Circulation Sys., Inc.*, 535 U.S. 826, 834 (2002); Christopher A. Cotropia, "Arising Under" Jurisdiction and Uniformity in Patent Law, 9 MICH. TELECOMM. & TECH. L. REV. 253, 286-302 (2003) (explaining how the *Holmes* decision disturbed the Federal Circuit's exclusive jurisdiction).

246. See Christopher A. Cotropia, *Patent Claim Interpretation and Information Costs*, 9 LEWIS & CLARK L. REV. 57, 58 (2005) (noting the immense Federal Circuit jurisprudence on the issue of claim interpretation after the Supreme Court's decision in *Markman*); Romary & Michelsohn, *supra* note 15, at 1889-92; Wagner & Petherbridge, *supra* note 10, at 1124-25 (studying the Federal Circuit's performance in the area of claim interpretation).

247. See generally *Phillips v. AWH Corp. (Phillips I)*, 363 F.3d 1207 (Fed. Cir. 2004), *vacated*, 376 F.3d 1382 (Fed. Cir. 2004) (en banc).

248. See *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331 (Fed. Cir. July 12, 2005) (en banc).

249. See *id.*

Circuit's creation.²⁵⁰ Also, the Supreme Court's decision in *Markman* concerning claim interpretation arguably requires courts to adopt a single approach.²⁵¹

In addition to the legal reasons, normative rationales exist for settling on one interpretation methodology for all courts. A single approach facilitates true substantive review of district court decisions by the Federal Circuit. If all courts use a single methodology, appellate review can focus on whether district courts properly executed the methodology, instead of starting the process anew by selecting a different methodology, followed by construing the claims accordingly. A unitary methodology approach also eases the burden on the district courts, allowing them to focus only on properly implementing the methodology. Furthermore, a single, agreed-upon methodology also helps those outside the litigation setting to evaluate patents and their scope.²⁵² Uncertainty in the methodology that a court will use severely hampers the ability of parties to predict the exact scope of exclusivity a patent gives its owner.

Evaluating the available methodologies is the first step in rationally choosing a single claim interpretation approach. This Part will undertake a deeper examination of the evaluation process, first focusing on the need to develop one or more evaluation benchmarks. Such criteria are needed to facilitate the comparison among methodologies. Evaluation criteria also instill a normative baseline into the comparison process, ensuring that the chosen methodology maximizes the normative goals embedded in the criteria.

The certainty standard used currently when evaluating claims is then discussed. Almost all courts and commentators evaluate how claims are interpreted under this criterion.²⁵³ The Federal Circuit identified this criterion in its en banc order in *Phillips II* and

250. See Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 7-8 (1989); Wagner & Petherbridge, *supra* note 10, at 1114-17 (discussing the mandate of the Federal Circuit, in particular the mandate in relation to claim interpretation jurisprudence).

251. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996); Wagner & Petherbridge, *supra* note 10, at 1120-24.

252. See Dreyfuss, *supra* note 250, at 7 (noting how commentators believe that "certainty and predictability" in patent law can "foster technological growth and industrial innovation and ... facilitate business planning").

253. See, e.g., *Phillips v. AWH Corp.*, (Phillips II), 376 F.3d 1382, 1383 (Fed. Cir. 2004) (en banc); Wagner & Petherbridge, *supra* note 10, at 1176.

mentioned it multiple times in its en banc opinion in *Phillips III*.²⁵⁴ The main rationale behind using this criterion is that it ensures that the resulting interpretation maximizes the public notice function of patent claims. However, this criterion overlooks the certainty-maximizing effects of simply choosing a single methodology. In addition, diminishing returns exist as one tries to modify a methodology to get closer to absolute certainty and uniformity. Finally, focusing strictly on certainty as the sole standard for evaluating interpretation methodology overlooks the other and more important function of patent claims—the substantive function of defining the patent’s scope of exclusivity.

A. Need for Evaluation Criteria

Adopting a criterion or set of criteria for use when evaluating how a legal instrument is interpreted is nothing new to law. In both contract interpretation and statutory interpretation, scholars and courts have discussed which interpretation methods are better.²⁵⁵ These discussions usually begin by setting forth how the different approaches will be judged.²⁵⁶ These judgments are made based on a defined set of criteria. For example, methods of statutory interpretation have been judged as to their “predictability,” their “political neutrality,” their observance to the separation of powers, and their “pragmatism.”²⁵⁷ The criteria used in comparing contract interpretation methods is just as varied.²⁵⁸

Using evaluation criteria facilitates the comparison of different methodologies. The only rational way to select among varying approaches is to judge them against the same standard and compare

254. *Phillips III* at *11 (discussing how reliance on extrinsic evidence, such as dictionaries, undermines the “public notice function of patents”); see also *id.* at *15 (indicating that the adopted methodology can be implemented with “reasonable certainty and predictability”); *Phillips II*, 376 F.3d at 1383 (asking, in question one, whether “the public notice function of patent claims [is] better served” under one methodology as opposed to the other).

255. See, e.g., Avery Wiener Katz, *The Economics of Form and Substance in Contract Interpretation*, 104 COLUM. L. REV. 496, 496-98 (2004); Timothy P. Terrell, *Statutory Epistemology: Mapping the Interpretation Debate*, 53 EMORY L.J. 523, 524-25 (2004).

256. See, e.g., Carlos E. Gonzalez, *Reinterpreting Statutory Interpretation*, 74 N.C. L. REV. 585, 696-718 (1996) (asking which statutory interpretation methodology is “most public-regarding”).

257. See Terrell, *supra* note 255, at 531.

258. See, e.g., Katz, *supra* note 255, at 497-98 (noting that contract interpretation methodologies are characterized as either formal or substantive).

the results. The best scoring method is the one that most closely meets the evaluation criteria. For example, Eskridge has argued for a “dynamic” statutory interpretation methodology.²⁵⁹ He has suggested such a methodology because it furthers a particular normative rationale, a criterion that a statute’s meaning should adapt, in some cases, to the current social values.²⁶⁰ Without a clear criterion, assessment of Eskridge’s dynamic statutory interpretation methodology becomes difficult, if not impossible. Without evaluation criteria, one would never be sure if one methodology is truly “better” than the other.

Establishing criteria for evaluating methodologies also properly interjects a normative element into the selection process. Embedded in any criterion is a normative rationale that the criterion attempts to maximize. Judging methodologies based on their performance under a particular criterion helps to ferret out the norm or norms operating within the interpretative approaches.²⁶¹ Therefore, not only does an evaluation criterion facilitate the assessment and comparison process, but a criterion also brings the necessary normative analysis into the selection process. The values that a methodology furthers are brought to the forefront. Criteria give a true reason why one methodology is normatively better than another. If a methodology does not score well under a given criterion, that methodology is disfavored because it does not further the normative principle embedded in the criterion. Most do not quibble with the need for evaluation criteria when trying to choose among different interpretation regimes. Often much disagreement exists, however, over the exact criteria to use, and this disagreement is usually founded on a dispute over the propriety of the normative rationale underlying the criteria.²⁶² Currently, such a disagreement does not exist in the claim interpretation context. Courts and commentators only really use one criterion—certainty.

259. William N. Eskridge, Jr., *Dynamic Statutory Interpretation*, 135 U. PA. L. REV. 1479 (1987).

260. *Id.* at 1482-96 (describing the concept of dynamic statutory interpretation).

261. See Terrell, *supra* note 255, at 531-32 (noting the norms “at work behind the interpretative techniques” in the statutory interpretation context).

262. See *id.* at 523-34 (noting the ferocity of the debate regarding the statutory interpretation).

B. Certainty as an Evaluation Criterion

The certainty criterion is the most widely utilized criterion for evaluating claim interpretation methodologies.²⁶³ Courts and commentators currently judge claim interpretation methodologies on whether they provide certainty about the patent claim's meaning.²⁶⁴ If a particular method provides predictable results and others can successfully replicate it, that methodology scores well under the certainty criterion.²⁶⁵ Conversely, if a given approach's resulting claim meaning is tough to predict and duplicate, that approach fails under the certainty criterion and should not be used.²⁶⁶

The certainty criterion is used to ensure that a methodology furthers the normative goal of providing public notice about the exact patent scope of exclusivity. If the way that claims are construed causes claim definitions to be unpredictable for the public and courts, that method thwarts the notice aspect of patent claims. Such methodologies would make it difficult for any patent observer to be sure of a claim term's meaning.²⁶⁷ An interpretation process that produces erratic results is also not replicated easily by reviewing courts, patent holders, and other interested parties. If a methodology creates uncertainty, it impedes the claim's ability to communicate the patent's scope to the public and the patent holder. The usage of the certainty criterion tries to make sure that the patent claim's public notice function is not hampered, but furthered, by the claim interpretation methodology used.

The Supreme Court's decision in *Markman* emphasizes certainty as a main goal for claim interpretation.²⁶⁸ In *Markman*, the Supreme Court concluded that claim interpretation questions were

263. See, e.g., *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390-91 (1996). Other evaluation criteria have been employed, but not to the extent of the certainty criterion. Nard, in addition to looking at certainty, considers which methodology observes the "proper allocation of interpretive authority." Nard, *supra* note 57, at 64-79.

264. See, e.g., *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *10-13, *15 (Fed. Cir. July 12, 2005) (en banc); *Phillips v. AWH Corp. (Phillips II)*, 376 F.3d 1382, 1383 (Fed. Cir. 2004) (en banc).

265. See *Wagner & Petherbridge*, *supra* note 10, at 1176.

266. *Id.*

267. *Id.* at 1171-72, 1176.

268. See *Markman*, 517 U.S. at 390-91.

“reserved entirely for the court.”²⁶⁹ In formulating this conclusion, the Court addressed what constituted a good claim interpretation methodology.²⁷⁰ The Court found it important to ensure that claim construction promoted certainty and uniformity because “[t]he limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public.”²⁷¹ By providing certainty, claim construction provides public notice of the patent claim’s subject matter.²⁷²

Since the Supreme Court’s decision in *Markman*, the Federal Circuit has also focused on establishing a claim interpretation methodology that furthers the claim’s public notice function.²⁷³ In its recent en banc opinion on claim interpretation, *Phillips III*, the Federal Circuit referenced the certainty criterion when justifying its selection of the specification methodology. The court made a point to recognize that the methodology scored well under the criterion.²⁷⁴ For example, when discussing whether the methodology can maintain the balance between the competing canons of reading the claims in light of the specification and not reading limitations from the specification into the claims, the court concluded that the methodology could maintain such a balance “with reasonable certainty and predictability.”²⁷⁵

Most commentators have criticized current claim interpretation under the certainty criterion.²⁷⁶ They have looked at how the

269. *Id.* at 372.

270. *Id.* at 388-91.

271. *Id.* at 390 (alteration in original) (quoting *Gen. Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369 (1938)).

272. *Id.*

273. See *Romary & Michelsohn*, *supra* note 15, at 1892 (“[T]he Federal Circuit ... has renewed its focus on adequate public notice as perhaps the fundamental constraint on the claim interpretation process.”).

274. See *Phillips v. AWH Corp.* (*Phillips III*), Nos. 03-1269, 03-1286, 2005 WL 1620331, at *15 (Fed. Cir. July 12, 2005) (en banc).

275. *Id.* Notably, the court’s opinion also included statements that evidence some recognition by the court of the linkage between methodology and claim scope. See *id.* at *14, *16 (noting how the heavy presumption methodology “cause[s] the construction of the claim to be unduly expansive” and the specification methodology creates a claim scope “of the actual invention more accurately”).

276. See Gretchen Ann Bender, *Uncertainty and Unpredictability in Patent Litigation: The Time is Ripe for a Consistent Claim Construction Methodology*, 8 J. INTEL. PROP. L. 175, 209-17 (2001) (analyzing the reasons behind uncertainty in claim construction); Dave A. Ghatt & Timothy B. Kang, *Claim Interpretation: A Regression to Uncertain Times*, 84 J. PAT. &

Federal Circuit interprets claims and asked which method provides the most certainty about a claim's meaning or is the most predictable in the meaning that it produces.²⁷⁷ Like the courts, commentators evaluate methodologies based on whether they further the claim's public notice function,²⁷⁸ and they adopt certainty as the criterion to judge whether a particular approach meets the goal of public notice.

C. Shortcomings of Certainty as a Criterion

Overemphasis should not be placed on certainty as an evaluation criterion. To begin, certainty as a criterion does little to differentiate between methodologies. Regardless of a methodology's specifics, an inherent certainty is created once courts decide on a single methodology.²⁷⁹ The discretion left to the courts when approaching claim construction creates an uncertainty itself. Because no statute describes exactly how courts should interpret claims, observers must look to the courts for guidance on interpretation issues. Without clear direction from the courts in the form of a single methodology, one cannot predict a claim's meaning because of the uncertainty about which methodology will be used. One does not know, for example, where on the spectrum in Figure 2 a court's

TRADEMARK OFF. SOC'Y 456, 464-69 (2002) (arguing that early reference to the specification creates uncertainty by clouding the proper interpretation of the claims); Ben Hattenbach, *Chickens, Eggs and Other Impediments to Escalating Reliance on Dictionaries in Patent Claim Construction*, 85 J. PAT. & TRADEMARK OFF. SOC'Y 181, 189-90 (2003) (contending that consulting the dictionary leads to uncertain results); Craig Allen Nard, *Certainty, Fence Building, and the Useful Arts*, 74 IND. L.J. 759, 759-62 (1999) (noting that litigation delays compound the harm caused by uncertainty); Wagner & Petherbridge, *supra* note 10, at 1176 (evaluating the procedural and holistic approach in terms of applicability in "a consistent and predictable manner"); Wang, *supra* note 215, at 167-69 (praising a formalist approach that promotes certainty by minimizing judicial discretion).

277. See, e.g., Hattenbach, *supra* note 276, at 189-90 (arguing that the procedural approach produces uncertainty).

278. See *supra* note 254.

279. Certainty is the driving force behind those commentators who want the Federal Circuit to adopt a single methodology. See Wagner & Petherbridge, *supra* note 10, at 1176; see also Paul R. Michel, *The Court of Appeals for the Federal Circuit Must Evolve to Meet the Challenges Ahead*, 48 AM. U. L. REV. 1177, 1191 (1999) (noting that "[t]he problem most frequently mentioned by practitioners" as the source of the uncertainty of the Federal Circuit's decision "is known as 'panel-dependency'"); Matthew F. Weil & William C. Rooklidge, *Stare Un-Decisis: The Sometimes Rough Treatment of Precedent in Federal Circuit Decision-Making*, 80 J. PAT. & TRADEMARK OFF. SOC'Y 791, 804-07 (1998).

methodology will fall, and thus, how much influence the court will afford the specification. Once a court selects a point on the spectrum and publicly identifies it in a decision with precedential value, a degree of certainty is necessarily achieved. This predictability is achieved regardless of the adopted methodology's specifics. The public notice function of patent claims is then furthered. With only one methodology used, different individuals more likely will interpret the claims in the same manner, and thus, a higher likelihood of getting a similar result will exist.²⁸⁰ Every methodology furthers certainty and uniformity to some degree if all the players in the patent system use the same methodology.

Adopting a single methodology, however, does not automatically result in absolute certainty and uniformity. The methodology chosen can still be unpredictable in application because of the canons it chooses to use. This will frustrate the public notice function of patent claims. A methodology whose method cannot be reproduced uniformly creates a situation that is *de facto* like the situation in which a single methodology was never chosen.²⁸¹ Thus, a certainty criterion may still be of some use to courts and commentators. An assumption is being made, however, that one methodology can lead to noticeably more certainty than others.

This begs the question of whether any methodology can produce absolute certainty in claim meaning. That is, does a methodology exist where courts, patent holders, and patent observers will all come to the same definition for a particular claim term? Varying

280. Some uncertainty can still exist if different individuals have difficulty implementing the chosen methodology in the same manner. In fact, depending on the methodology chosen, a significant amount of unpredictability may remain. See *Wagner & Petherbridge*, *supra* note 10, at 1176-77. Others argue that the mere fact that claim interpretation is reviewed *de novo* creates substantial uncertainty for district court judges. See *Phillips III*, 2005 WL 1620331, at *22, *24-25 (Mayer, J. dissenting). Even under these circumstances, however, the results are still more certain because everyone is using the same approach, taking one variable out of the interpretation process. This variable removal at least moves closer to uniformity in result.

281. The differential between the majority opinion in *Phillips I* and the en banc decision in *Phillips III* provides a good example of the uncertainty still present after a single methodology is adopted. See *Phillips III*, 2005 WL 1620331, at *20-21 (Lourie, J., concurring in part and dissenting in part) (noting the fact that the decisions reach different results with the same methodology). The same outcome—use of same methodology but different results—can also occur under the heavy presumption methodology. See, e.g., *Nystrom v. Trex Co.* 374 F.3d 1105, 1110-12 (Fed. Cir. 2004) (facing the possibility of different interpretations because of the multiple definitions of the term “board” in different dictionaries).

degrees of certainty are obtainable,²⁸² but, for certainty to be a successful criterion, a significant difference must exist between two methodologies for one to be clearly superior. Currently, commentators do not universally recognize a single methodology as achieving a significant degree of certainty and uniformity.²⁸³ At the least, a real question exists as to whether using certainty as a criterion adds anything to the evaluation process, particularly when true predictability in claim interpretation may not be possible.

Even if certainty helps distinguish some methodologies from others, this benefit must be compared against the criterion's failure to speak to the substantive function of patent claims. Ensuring the predictability of a claim interpretation methodology does not address whether the resulting substantive claim scope furthers the goals of patent law. Certainty may apprise everyone of the claim's scope of exclusivity, but it does not direct the scope of patent exclusivity in any given direction. A patent claim's substantive function is the most important role the claim plays in the patent system.²⁸⁴ Any evaluation of interpretation methodology needs to consider the impact the approach has on the contours of the resulting patent scope. Such an impact is not considered when certainty is used as a criterion. Consequently, the criterion fails to judge methodologies on how they substantively affect patent scope.

Nonetheless, certainty as a criterion should not be completely discounted. It should still be considered when examining differing approaches to defining claims. However, in view of its shortcomings,

282. Leaving some uncertainty in the patent context may actually be beneficial. See, e.g., Ian Ayres & Paul Klemperer, *Limiting Patentees' Market Power Without Reducing Innovation Incentives: The Perverse Benefits of Uncertainty and Non-Injunctive Remedies*, 97 MICH. L. REV. 985 (1999).

283. Most argue that the heavy presumption methodology is more predictable and certain than the specification methodology. See Wagner & Petherbridge, *supra* note 10, at 1176 (discussing these two methodologies in the broader context of the holistic and procedural approach); Wang, *supra* note 215, at 169-71. However, just-as-convincing arguments exist that the heavy presumption methodology produces unpredictable results. See Hattenbach, *supra* note 276, at 189-90; Jennifer R. Johnson, *Out of Context: Texas Digital, the Indefiniteness of Language, and the Search for Ordinary Meaning*, 44 IDEA 521, 532-40 (2004); Joseph Scott Miller & James A. Hilsenteger, *The Proven Key: Roles & Rules for Dictionaries at the Patent Office and the Courts*, 54 AM. U. L. REV. (forthcoming 2005) (manuscript at 30-43), available at <http://ssrn.com/abstract=577262> (noting the many uncertainties introduced under the current use of dictionaries by the Federal Circuit).

284. See *infra* Part IV.C.1.

particularly its ignorance of the patent claim's substantive function, other criteria must also be considered.

IV. A NEW EVALUATION CRITERION: A METHODOLOGY'S CLAIM SCOPE PARADIGM

This Article proposes the use of a new evaluation criterion—a claim interpretation methodology's "claim scope paradigm." A claim scope paradigm is the particular view, or perspective, on the proper patent scope encoded into an interpretation method. This view on patent scope can cause a methodology to consistently produce a specific type of patent protection. For example, a methodology may have a claim scope paradigm that consistently interprets claims to have a broad area of protection because the methodology's paradigm considers such broad protection to be correct. Another methodology may have a claim scope paradigm that always produces narrow claim interpretations.²⁸⁵

Once a methodology's claim scope paradigm is identified, that particular approach's propriety can be judged based on the claim scope paradigm's acceptability. If a methodology's claim scope paradigm promotes a favored patent theory or policy, that methodology scores well under this criterion. For example, if broad protection for the invention is favored, then a claim interpretation methodology whose claim scope paradigm results in broad invention protection should be selected. In contrast, if courts or policymakers favor a narrow claim scope, an interpretation approach whose paradigm results in narrow protection should be adopted. The benefit to using claim scope paradigm as a criterion is that it speaks directly to the substantive function of patent claims. Claim scope paradigm addresses how a methodology affects patent protection, or in other words, the scope of exclusivity a patent claim creates. Once the claim scope paradigm is identified, courts can judge methodologies based on their substantive effect.

285. This example overly simplifies the concept of claim scope paradigm and how a particular claim interpretation methodology can have and implement such a paradigm. Rarely is any patent theory as basic as supporting extremely broad patent scope or narrow patent scope. Most patent theories support a particular patent scope as it relates to other factors in the invention's technological industry or the invention itself. See Burk & Lemley, *supra* note 1, at 1596-615 (cataloging and explaining different patent theories).

For a claim scope paradigm to be a viable criterion for evaluating methodologies, two points must be established. First, claim interpretation methodologies actually must contain claim scope paradigms. If such paradigms are impossible to locate or identify, they cannot be used to evaluate methodologies. Second, some benefit to judging methodologies based on their claim scope paradigm must exist. Without some normative rationale for using claim scope paradigms as a criterion, the identification and comparison effort under the criterion is worthless and wasteful. This Part will explore each of these points in detail, concluding that claim scope paradigms do exist, are identifiable, and are extremely useful in grading a particular methodology and furthering patent theory. By identifying a methodology's claim scope paradigm, courts can recognize that choosing among interpretation methods is tied directly to choosing a proper patent scope. A further benefit is that the recognition of the claim scope paradigm facilitates the use of claim interpretation methodology as a highly effective patent policy lever.

A. Identification of an Interpretation Methodology's Claim Scope Paradigm

Most claim interpretation methodologies include a claim scope paradigm. The paradigm is encoded into the methodology through the particular interpretation canons that the methodology uses. Interpretation canons dictate how informational sources affect the resulting claim definition, and as the usage of the available informational sources change, so does the claim terms' definition. Using one interpretation canon may produce a particular claim definition, while using another on the same claim term can produce a different definition. The different definitions reflect a difference in patent scope. As a methodology is used in various cases, the methodology produces the same differential in claim scope in every case by using the same set of canons. This difference in the scope of patent protection is a direct product of the canon or canons that a methodology chooses to employ.²⁸⁶ The specific breadth of a claim's definition is the product of the defining process itself. This direct

286. See Nard, *supra* note 57, at 4 ("Indeed, the interpretative tools used by a court directly affect the extent of the patentee's property interest, and, therefore, where the patentee's competitors may and may not tread.").

effect on claim definition in every case is a claim interpretation methodology's claim scope paradigm.

To better illustrate the existence and identification of claim scope paradigms in interpretation methodologies, the two interpretation canons regarding the specification are revisited.²⁸⁷ The former canon instructed the construer to read the claims in light of the specification, while the latter cautioned the construer against reading limitations from the specification into the claims. Finding it difficult to implement both canons together, courts usually favor one canon over the other. Depending on which canon is emphasized, the specification has either significant or little to no influence on the resulting interpretation.²⁸⁸

By choosing one canon over the other, a methodology adopts a specific claim scope paradigm. The two canons speak to the relationship between the defined claim scope and the specification's teachings regarding the patentee's inventive activities. The former canon ensures the patentee's inventive activities influence the resulting definition, while the latter does not. If a methodology limits the resulting claim interpretation to the specification, that methodology constrains the patent's scope to the disclosed invention's specifics. In contrast, if a methodology allows a claim's meaning to deviate significantly from the specification, the disclosed invention information does not constrain the resulting claim scope. The specific claim language under construction does not produce the difference in claim scope under these two methodologies. Instead, the particular methodology that a canon employs directly produces the contours of the resulting claim scope in both cases. These characteristics of the resulting claim scope define a methodology's claim scope paradigm. To provide further examples of how a methodology can have an identifiable claim scope paradigm, the two recent approaches to claim interpretation will be examined. In addition, the Federal Circuit's recent analysis of these two approaches in *Phillips III* will be discussed.

287. See *supra* Part II.B.

288. This variation is demonstrated in Figure 2, *supra* p. 82.

1. Claim Scope Paradigm of the Specification Methodology

The specification methodology, characterized by full and early use of the specification in the interpretation process, has an identifiable claim scope paradigm. The methodology's claim scope paradigm limits the patent's scope of protection to the full invention disclosed in the specification. This claim scope paradigm can be identified by examining the particular interpretation canons that the methodology employs. In particular, to find the claim scope paradigm, the methodology is inspected to see the relationship it enforces between the resulting claim definition and other sources of invention-related information.

In *Phillips I*, the majority used the specification methodology.²⁸⁹ By looking at the specification early in the interpretation process, the majority focused on all the information about the invention and, specifically, the role the claimed "baffles" played in the invention. The court looked to see how the inventor, in the context of the entirety of his invention, used the claim term "baffles."²⁹⁰ After inspecting the specification, the court concluded that one of the core properties of the patentee's invention is the modular building walls' impact-resistant nature.²⁹¹ The patent called for the baffles' placement at an orientation other than ninety degrees to effectuate the invention's impact resistance.²⁹² The patent's drawings support such a conclusion, depicting the baffles at an orientation other than ninety degrees.²⁹³ The majority viewed the specification as describing the invention to include baffles with only an orientation other than ninety degrees.²⁹⁴ As the majority stated: "Inspection of the patent shows that baffles angled at other than 90° is the *only* embodiment disclosed in the patent; it is the invention. It is impossible to derive anything else from the specification."²⁹⁵

289. *Phillips v. AWH Corp. (Phillips I)*, 363 F.3d 1207, 1213-14 (Fed. Cir. 2004), *vacated*, 376 F.3d 1382 (Fed. Cir. 2004) (en banc).

290. *Id.* at 1213 (quoting *Comark Commc'ns, Inc. v. Harris Corp.* 156 F.3d 1182, 1187 (Fed. Cir. 1998)).

291. *Id.*

292. *Id.* at 1213-14.

293. *Id.* at 1213 (noting Figures 6 and 12 of U.S. Patent No. 4,677,789 (filed Apr. 14, 1986) (issued July 7, 1987)).

294. *Id.* at 1213-14.

295. *Id.* at 1214.

The majority then took its specification-based understanding of the patentee's invention—the impact-resistant features of the invention and the baffles' non-ninety degree orientation—and used it to interpret the claims. Accordingly, the court interpreted the claim term “baffles” to mean baffles at an angular orientation to the outer shell other than ninety degrees. Following the specification methodology, the court determined the invention's parameters from the specification's teachings and interpreted the disputed claim term in light of these teachings. More specifically, the court ensured that its interpretation of “baffles” did not expand beyond the invention described in the specification.²⁹⁶ This approach has an identifiable claim scope paradigm, limiting claim scope to the disclosed invention. By using the specification fully and early in the interpretation process, the specification methodology limits the resulting claim scope to the specification's total teachings. Under the constraints encoded into the methodology, the term “baffles” could not be given a meaning that expanded beyond the invention's scope disclosed in the specification.²⁹⁷ By allowing the specification to significantly influence the resulting claim's definition, the methodology, in turn, prevents the claim's literal scope from expanding beyond the patentee's inventive activities described in the specification. The methodology employs a claim scope paradigm that tunes the claim's meaning to what the patentee actually invented.

The Federal Circuit, in *Phillips III*, came to the same conclusion regarding how the specification methodology impacts the contours of the resulting claim scope.²⁹⁸ Although the court did not fully explore the specification methodology's claim scope paradigm, the *Phillips III* opinion laid a foundation for the paradigm's recognition. The court discussed the linkage between heavy reliance on the specification and characteristics of the interpreted claim. The court noted that by interpreting the claims “in the context of the particular patent” by using the full teachings of the specification, the

296. *Id.*

297. There can be disagreement, however, as to the scope of the disclosed invention. See, e.g., *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *17-*18 (Fed. Cir. July 12, 2005) (en banc) (coming to a different understanding than the majority in *Phillips I* as to the scope of the disclosed invention).

298. See *id.* at *7-9 (discussing the specification's importance in claim interpretation and the determination of the patentee's invention).

resulting construction “is likely to capture the scope of the actual invention more accurately.”²⁹⁹

The same claim scope paradigm can be found in another Federal Circuit case, *Wang Laboratories, Inc. v. America Online, Inc.*³⁰⁰ In *Wang*, the court construed the term “frame” in a claim concerning computer systems that displayed graphical and textual information.³⁰¹ The claimed “frame” is the vehicle through which the invention’s graphical and textual information is sent and processed.³⁰² The patentee argued for the meaning of “frame” to include frames containing either bitmapped display information or character-based display information.³⁰³ The accused infringers asserted that “frame” should include only display systems that followed character-based protocols.³⁰⁴ The ordinary, plain meaning of term “frame,” as generally used in the computer display arts, includes both bit and character systems.³⁰⁵

The court, following the specification methodology, first consulted the specification,³⁰⁶ looking at the specification to understand the patentee’s invention. The court found that “[t]he only system that [was] described and enabled in the [patent’s] specification and drawings used a character-based protocol.”³⁰⁷ The court did not find any description in the specification of other types of display protocols, including bit-based systems.³⁰⁸ Based on its analysis, the court concluded that “the specification would not be so understood by a person skilled in the field of the invention” to teach such a person how to use frames containing bitmapped display information.³⁰⁹

299. See *id.* at *16 (noting that by using the full teachings of the specification, the resulting interpretation will both properly use the specification’s information but not improperly limit the claims to the disclosed embodiments).

300. 197 F.3d 1377, 1381-83 (Fed. Cir. 1999). *Wang* is cited by Wagner and Petherbridge as the exemplar for the holistic approach to claim interpretation. See Wagner & Petherbridge, *supra* note 10, at 1135-36.

301. *Wang*, 197 F.3d at 1379-80.

302. *Id.*

303. *Id.* at 1381.

304. *Id.*

305. *Id.* (deriving the “general usage” of the term “frame” from the testimony and the parties’ stipulations).

306. *Id.* at 1382-83.

307. *Id.* at 1382 (basing its conclusion on both the specification’s text and drawings).

308. *Id.*

309. *Id.*

Once the court in *Wang* understood the extent of the specification's teachings about the invention to those skilled in the art, it applied this understanding to its construction of the claim term at issue. Thus, the term "frame" was interpreted to include only frames containing character-based display information.³¹⁰ The defined claim was not allowed to expand beyond what the court understood as the patented invention. The court noted that the claims may be interpreted beyond the preferred embodiment, but they may not encompass subject matter beyond the disclosed invention or, in other words, what the specification described and taught.³¹¹

The *Wang* court's approach is similar to the approach of the court in *Phillips III* and the majority's approach in *Phillips I*. The claim interpretation methodology employed in *Wang* examines the specification early in the interpretation process and uses its complete teachings. As in *Phillips III* and *Phillips I*, the *Wang* court ensured that the interpreted claims did not exceed the invention described and enabled in the specification.³¹² The specification methodology's full and early use limits the scope of the claims to the invention the patent teaches.³¹³ The patent's disclosure sets a ceiling for the claim's meaning, and thus, the literal scope of exclusivity afforded to the patent. By setting this limit, the methodology used in *Wang* implements the same claim scope paradigm adopted in *Phillips III* and used in the majority's decision in *Phillips I*, which limited the resulting claim scope to the disclosed invention. A single claim scope paradigm for the specification methodology, therefore, clearly exists and is identifiable. Figure 3, below, modifies Figure 1 to demonstrate the claim scope paradigm implemented through the specification methodology.³¹⁴

310. *Id.* at 1382-83.

311. *Id.* at 1383 (noting that interpreting claims beyond the preferred embodiment is "a question specific to the content of the specification, the context in which the embodiment is described, the prosecution history, and if appropriate the prior art").

312. *Id.*

313. *Id.*; see *Phillips v. AWH Corp. (Phillips D)*, 363 F.3d 1207, 1213-14 (Fed. Cir. 2004), *vacated*, 376 F.3d 1382 (Fed. Cir. 2004) (en banc).

314. Figure 3 depicts the maximum claim meaning under the specification methodology. The specification methodology can result in a claim meaning that is narrower than the specification's constructive teachings. That is, a patentee may choose to claim less than the full invention described and enabled in the specification for reasons of maintaining validity.

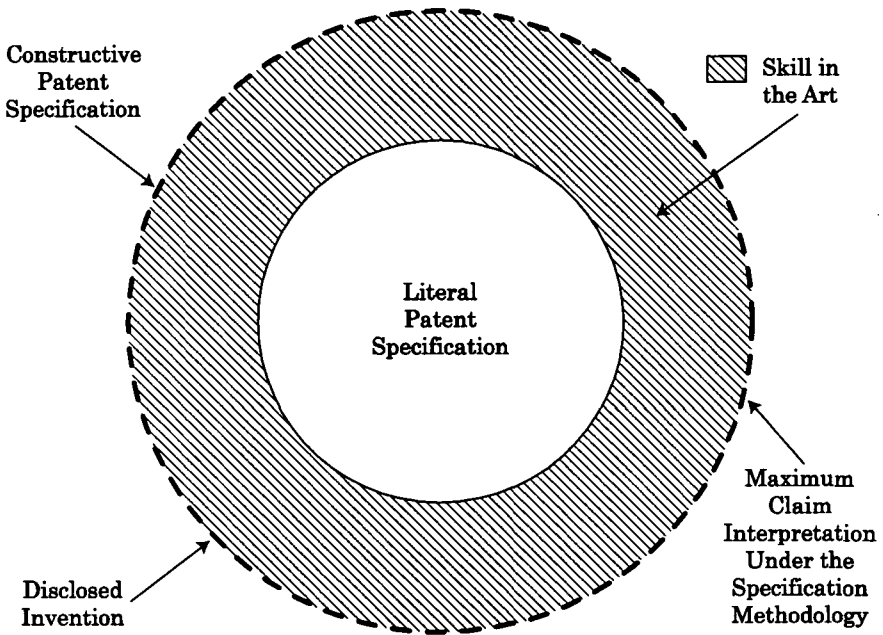


Figure 3

2. Claim Scope Paradigm of the Heavy Presumption Methodology

The heavy presumption methodology, which uses a heavy presumption in favor of dictionary definitions over the specification, implements a different claim scope paradigm. The methodology's claim scope paradigm does not limit the claim interpretation to the specification's teachings. Instead, the claim scope paradigm that the heavy presumption methodology employs only loosely ties the claim's definition, if at all, to the disclosed invention.

The dissent in *Phillips I* provides a good example of the heavy presumption methodology's claim scope paradigm. In particular, the dissent's discussion demonstrates the disconnect that the heavy presumption methodology creates between a claim's meaning and the specification's teaching.³¹⁵ The dissent, following the heavy

315. *Phillips I*, 363 F.3d at 1216-19 (Dyk, J., dissenting in part).

presumption methodology, used a dictionary initially to obtain the claim term's ordinary meaning under dispute.³¹⁶ Once the ordinary meaning is determined, the heavy presumption takes effect and can only be overcome in limited circumstances.³¹⁷

Evidence to overcome the presumption can be found in the specification, but it must come in the form of affirmative statements limiting the claim term at issue, such as limiting "baffles" to a particular angular orientation.³¹⁸ Notably, the dissent did not ask what invention the specification describes or whether the specification supported the full range of "baffles" encompassed in the term's ordinary meaning.³¹⁹ No inquiry was made as to whether the patentee invented a ninety degree baffle, and accordingly, whether it was described and enabled in the specification. The dissent found nothing to rebut the heavy presumption and therefore adopted the ordinary meaning of "baffles" obtained from a dictionary.³²⁰

The heavy presumption methodology contains its own identifiable claim scope paradigm, which disassociates claim scope from the disclosed invention. The specification's teachings do not tie down a claim's definition under this claim scope paradigm. By first looking for a claim term's ordinary meaning in an external definitional source, the methodology can produce claim meanings unrelated to the invention described in the specification. The heavy presumption methodology then makes only minimal efforts to relink the claim's definition with the specification's teachings. At best, a loose relationship is created in those limited circumstances where the heavy presumption is overcome and information from the specification influences the claim's definition. In most cases, the invention-related information in the specification plays no role in the definitional process. Consequently, the methodology's claim scope paradigm produces a patent scope unbounded by the patentee's specific inventive activities.

316. *Id.* at 1216-17 (Dyk, J., dissenting in part).

317. *Id.* at 1217 (Dyk, J., dissenting in part) (finding no support for adding additional structural limitations to the ordinary meaning of "baffles").

318. *Id.* at 1217-18 (Dyk, J., dissenting in part) (noting that "[t]he specification of the '798 patent contains no such language clearly limiting the claims to a specific structure").

319. *Id.*; cf. *Phillips I*, 363 F.3d at 1213-14 (demonstrating how the majority examined the specification for a description of the invention).

320. *Phillips I*, 363 F.3d at 1219 (Dyk, J., dissenting in part).

The Federal Circuit came to a similar conclusion in *Phillips III*.³²¹ Again, as with its discussion of the specification methodology, the court did not fully analyze the heavy presumption methodology's claim scope paradigm. But its discussion regarding the claim scope the methodology produces is a significant step in this paradigm's recognition. The court viewed the heavy presumption methodology as disconnecting the patent's teachings regarding the invention and the claims' ultimate construction.³²² The methodology's "heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification."³²³

The majority's decision in *SuperGuide Corp. v. DirectTV Enterprises, Inc.*³²⁴ provides another example of this claim scope paradigm. The patents at issue in *SuperGuide* laid claim to on-screen, interactive programming guides for televisions.³²⁵ The earliest patent at issue, U.S. Patent No. 4,751,578, was filed in May 1985 and issued in 1988.³²⁶ The patent's specification teaches how to use its invention to mix the on-screen programming guide information with television signals received via antenna or cable so that both could be displayed simultaneously on the television.³²⁷ The first claim in the patent describes a "mixer" element "for mixing a regularly received television signal with the signal generated by the microcontroller" to create the on-screen guide.³²⁸

In June 2000, SuperGuide sued a group of satellite television providers.³²⁹ Notably, the accused devices, all set-top boxes that receive broadcast satellite transmissions, received digital television signal transmissions to be displayed on a satellite subscriber's

321. See *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *15 (Fed. Cir. July 12, 2005) (en banc).

322. See *id.* at *13-15.

323. *Id.* at *14. The court concludes that the heavy presumption methodology "will systematically cause the construction of the claim to be unduly expansive." *Id.*

324. 358 F.3d 870 (Fed. Cir. 2004).

325. *Id.* at 875-76.

326. *Id.* at 875.

327. *Id.* at 875-76 (quoting U.S. Patent No. 4,751,578 (filed May 28, 1985) (issued June 14, 1988)).

328. *Id.* at 876 (emphasis removed) (quoting U.S. Patent No. 4,751,578 (filed May 28, 1985) (issued June 14, 1988)).

329. *Id.* at 873-74.

television.³³⁰ The defendants' main argument was that the first claim in the patent, and certain other claims SuperGuide asserted, required the mixing of analog television signals with the on-screen guide and therefore did not cover digital televisions signals.³³¹

The majority reversed the district court's interpretation and concluded that the claim term "television signals" includes all television signals, regardless of their format.³³² The majority used the heavy presumption methodology to arrive at their claim interpretation.³³³ The court first looked at the ordinary meaning of the claim term "television signal," determining that it did not limit the type of television signal, and therefore, an analog limitation was inappropriate.³³⁴ The court further noted that "neither 'analog' nor 'digital' appears in any of the asserted claims."³³⁵ The ordinary meaning of the claim term was set.

The majority then turned to the specification, but only to determine whether the heavy presumption in favor of the ordinary meaning was overcome. It found nothing in the specification demonstrating that the patentee explicitly acted as his own lexicographer or disclaimed any part of the ordinary meaning.³³⁶ Nowhere did the patentee "explicitly *limit* the disputed claim language" to analog signals.³³⁷ Nor was there anything "in the written description ... that *precludes* ... the claimed invention from receiving video data in digital format."³³⁸ The majority concluded that the heavy presumption was not overcome and the claim language's plain meaning supported the broad definition of "television signal."³³⁹

330. *Id.* at 873.

331. *Id.* at 876-77.

332. *Id.* at 879-80.

333. *Id.*

334. *Id.* at 878-80 ("The claim language does not limit the disputed phrases to any particular type of technology or specify a particular type of signal format, such as analog or digital.")

335. *Id.* at 878.

336. *Id.* at 879-80 (indicating that the court found "nothing in the written description of the '578 patent, much less the claim language, that precludes the mixer of the claimed invention from receiving video data in digital format").

337. *Id.* (noting further that "[h]ad the patentees intended to limit the disputed claim terms to 'analog' technology, they could have easily done so by explicitly modifying the disputed claim language with the term 'analog'") (emphasis added).

338. *Id.* at 880 (emphasis added).

339. *Id.* ("We find no reason here to limit the scope of the claimed invention to analog

As in the dissent's opinion in *Phillips I*, the heavy presumption methodology used in *SuperGuide* disconnects the resulting claim scope from the specification's teachings about the patentee's invention. Consequently, the scope of patent protection can extend well beyond the patentee's actual invention. This claim scope paradigm takes effect through the methodology's presumption that the disclosed invention's specifics does not restrain the patent's scope.

The resulting claim scope in *SuperGuide* included all television signals, even though the specification focused on mixing a programming guide with analog signals.³⁴⁰ In fact, digital television signals were not broadcast until well after the patent's filing.³⁴¹ A person skilled in the art at the time of the patent's filing would not have understood, based on the patent, that the on-screen guide invention was to be used with what were at that time nonexistent digital television signals.³⁴² As the concurrence stated, "[t]he majority's claim constructions expand the scope of the '578 patent far beyond what the named inventors say they actually invented in their application, and what it describes and enables."³⁴³ "The inventors here most assuredly did not invent a system that receives digital signals; their patent cannot therefore cover such systems."³⁴⁴

Other interpretation canons exist that may reign in the resulting interpretation, bringing it closer to the specification's teachings on the invention.³⁴⁵ However, under the current heavy presumption

technology, when 'regularly received television signals,' i.e., video data, is broad enough to encompass both formats and those skilled in the art knew both formats could be used for video.").

340. *See id.* at 896-98 (Michel, J., concurring) (stating that the patent did not describe or enable "systems for receiving signal technology that was not then in use by the television industry").

341. *Id.* at 897 (Michel, J., concurring) (citing expert testimony that digital television signals were not in use when the patent was filed in 1985).

342. *Id.* at 896-98 (Michel, J., concurring) (citing testimony).

343. *Id.* at 896 (Michel, J., concurring).

344. *Id.* at 898 (Michel, J., concurring).

345. *See Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1263 (Fed. Cir. 2004) (Bryson, J., concurring) (noting that patent protection cannot extend beyond what "the applicant has actually conceived and enabled"); *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999) (demonstrating that the canon of interpretation dictating that claims must be interpreted as valid prevents a resulting claim definition from going beyond the specification's teachings); *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 882 (Fed. Cir. 1988) (noting that patent doctrine requires claims to have the same meaning for purposes of determining validity and infringement).

methodology, these canons rarely take hold. Using a heavy presumption in favor of dictionary definitions ensures that courts first reference outside sources, not the specification.³⁴⁶ Once the ordinary meaning is determined from a dictionary, the heavy presumption entrenches this meaning.³⁴⁷ The presumption can be overcome only under limited circumstances in which the specification affirmatively teaches away from the ordinary meaning. The heavy presumption methodology does not provide an opportunity to check for complete continuity between the claims and the specification.³⁴⁸ The dissent in *Phillips I* and the majority in *SuperGuide* provide excellent examples of this phenomenon, as those opinions never spoke to whether the claims, as interpreted, were valid, or whether the specification fully supported the breadth of the presumed ordinary claim meaning.³⁴⁹ Instead, the methodology views the specification as only limiting, as opposed to supporting, the claim's definition. As the court in *Phillips III* characterized it, the methodology starts with the dictionary definition and only then starts "whittling it down."³⁵⁰

Therefore, the heavy presumption methodology's claim scope paradigm is de facto erratic relative to the specification's teachings regarding the invention. The methodology moves the claim term's meaning from the context of the patent to the abstract.³⁵¹ This erratic nature results from the methodology's inability to establish a fixed relationship between the defined claim and the disclosed invention. Figure 4, below, modifies Figure 1 to depict a potential claim scope under the heavy presumption methodology. Because the

346. See Wang, *supra* note 215, at 165-69.

347. See *id.*

348. In certain cases, the court, following the heavy presumption methodology, considered whether the interpreted claim met the specification requirements. See *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 993 (Fed. Cir. 1999) (ensuring that the written description requirement is met). In *Johnson*, however, the court did not inquire into the specification requirements on its own volition, but rather it was prompted to do so by the defendant's arguments. *Id.* (referencing Zebco's argument).

349. The parties' arguments could have dictated this fact. However, both decisions demonstrate that checks to link the interpreted claims and the specification are not an inherent part of the heavy presumption methodology. See *Phillips v. AWH Corp. (Phillips I)*, 363 F.3d 1207, 1216-19 (Fed. Cir. 2004) (Dyk, J., dissenting in part); *SuperGuide Corp. v. DirectTV Enters., Inc.*, 358 F.3d 870, 878-80 (Fed. Cir. 2004).

350. *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *14 (Fed. Cir. July 12, 2005) (en banc).

351. See *id.*

resulting claim scope is tied only loosely to the patent’s specification, the claim scope can potentially expand well beyond the specification or even exclude parts of the specification.³⁵²

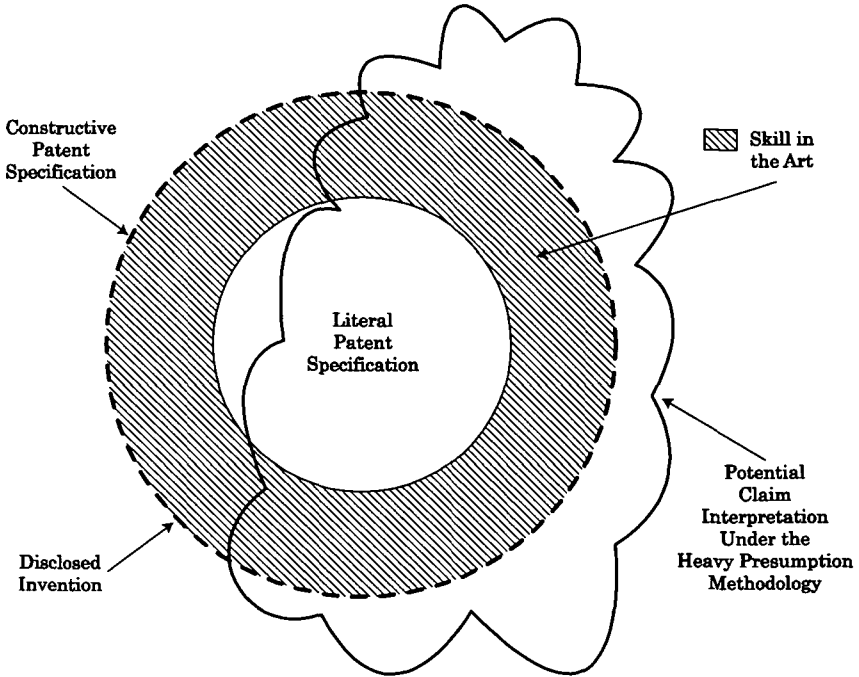


Figure 4

B. Evaluating Claim Interpretation Methodologies Based on Their Claim Scope Paradigm

The examples above demonstrate that claim scope paradigms do exist in claim interpretation methodologies and that they are identifiable. The next step involves using this new criterion to evaluate claim interpretation methodologies. Evaluation simply

352. See, e.g., *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1362-65 (Fed. Cir. 1999) (adopting an ordinary meaning of “permanently affixed” under the heavy presumption methodology that yielded a narrower claim scope by excluding attachment via a screw). This contradicts the Federal Circuit’s assumption that the heavy presumption methodology will “systematically cause the construction of the claim to be unduly expansive.” See *Phillips III*, 2005 WL 1620331, at *14.

requires determining what claim scope paradigm the evaluator wishes to further.³⁵³ Once this is established, the different methodologies are examined to determine whether they possess the favored claim scope paradigm. To score well under this criterion, a methodology needs to implement, or at least come close to implementing, the preferred claim scope paradigm.

A major difference between claim scope paradigm and certainty as a criterion is that only one general concept of certainty³⁵⁴ exists while there are many claim scope paradigms. To actually perform the evaluation process under the claim scope paradigm criterion, the specific paradigm sought must first be chosen. This choice involves a normative determination, asking what is the optimal claim scope? The answer to this question is beyond this Article's scope.³⁵⁵

However, the two recent methodologies' claim scope paradigms can be reexamined to see what patent theory an evaluator would need to support for that methodology to score well under this criterion. Put another way, each methodology's claim scope paradigm can be further analyzed to determine what patent protection theory the paradigm furthers. With this understanding, scoring methodologies under the claim scope criterion is easier. If a methodology creates claim definitions that further the evaluator's theory regarding the proper patent scope, presumably the same evaluator will prefer that methodology.

353. The Federal Circuit failed to perform this step in *Phillips III*. See generally *Phillips III*, 2005 WL 1620331, at *14. Although it may be implied from its favoring of the specification methodology, the court does not identify the particular patent theory it is trying to effectuate. Such a failure to identify the preferred patent theory is not surprising, considering the Federal Circuit historically has shown a lack of interest in patent law scholarship. See Craig Allen Nard, *Toward a Cautious Approach to Obeisance: The Role of Scholarship in Federal Circuit Patent Law Jurisprudence*, 39 HOUS. L. REV. 667, 678-81 (2002) (demonstrating that scholarship is rarely cited by the Federal Circuit).

354. However, varying degrees of certainty can exist.

355. Other commentators, however, have answered the question, but not surprisingly, their answers are not the same. See, e.g., F. Scott Kieff, *Property Rights and Property Rules for Commercializing Inventions*, 85 MINN. L. REV. 697 (2001) (arguing that patent rights should be afforded the same scope as property rights); Edmund W. Kitch, *supra* note 6 (calling for patent scope to take into account the prospect theory of patent rights); Merges & Nelson, *supra* note 1 (favoring reduced patent scope to encourage competition).

1. Competitive Innovation Theory Supports the Selection of the Specification Methodology

The specification methodology's claim scope paradigm creates a patent scope limited by the disclosed invention. This methodology uses this paradigm to achieve its goal of interpreting claims to encompass what the patentee actually invented. This claim scope paradigm most closely implements the "competitive innovation" patent theory.³⁵⁶ The specification methodology, by limiting the interpreted claim scope to the patentee's inventive activities, tries to facilitate competition in the marketplace, as opposed to giving the patentee near-monopoly power.³⁵⁷ The specification methodology would therefore score well under the claim scope paradigm criterion if an evaluator looks for a methodology that furthers the competitive innovation theory of patents.

The competitive innovation patent theory asserts that patents are needed only to provide an incentive to invent.³⁵⁸ According to this approach, patent protection is needed primarily to overcome the public good nature of intellectual property.³⁵⁹ With patent protection, the potential inventor has some assurance that others can be prevented from copying the invention.³⁶⁰ Therefore, the investor has

356. The label "competitive innovation" as used to describe the following theory is taken from Burk and Lemley's recent work on patent policy levers. See Burk & Lemley, *supra* note 1, at 1604.

357. *Id.* at 1604-07 (explaining the competitive innovation theory).

358. *Id.* at 1605-07.

359. See Joseph Scott Miller, *Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents*, 19 BERKELEY TECH. L. J. 667, 680-81 (2004) (discussing the "free rider problem" that the public good nature of invention creates and how it "undercut[s] the incentive to invent"); Katherine J. Strandburg, *What Does the Public Get? Experimental Use and the Patent Bargain*, 2004 WIS. L. REV. 81, 104-05 (2004) ("The production of patentable inventions is understood to be different from other commercial activity because the investment in new ideas, unlike the investment in capital equipment or materials, is assumed to be appropriable by competitors at very little expense."); see also Burk & Lemley, *supra* note 1, at 1605 (indicating that "information is a public good for which consumption is nonrivalrous—that is, one person's use of the information does not deprive others of the ability to use it").

360. See Gideon Parchomovsky & Peter Siegelman, *Towards an Integrated Theory of Intellectual Property*, 88 VA. L. REV. 1455, 1466-67 (2002). Parchomovsky and Siegelman argue that:

[A]bsent legal protection, competitors would copy such works without incurring the initial costs of producing them. Unauthorized reproduction would drive down the market price to the cost of copying, original authors and inventors would not be able to recover their expenditures on authorship and R&D, and, as a result,

a potential to recoup research and development costs, thereby creating an incentive to invent.³⁶¹ The competitive innovation theory views patents as providing only an ex ante incentive to create the invention.³⁶²

After the invention's creation, the competitive innovation theory argues that competition, not monopoly power, provides the best way to encourage actual innovation in the marketplace.³⁶³ Patent law and exclusivity is no longer needed to prompt the inventor to further develop and commercialize the invention.³⁶⁴ Competition will provide enough ex post incentive after the invention's creation to stimulate its development and improvement, and to make it commercially viable and beneficial.³⁶⁵ Companies will innovate to

too few inventions and expressive works would be created.

Id. at 1467.

361. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480-81 (1974) ("The patent laws promote this progress by offering a right of exclusion for a limited period as an incentive to inventors to risk the often enormous costs in terms of time, research, and development."); Burk & Lemley, *supra* note 1, at 1605; Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 995-96 (1997) (noting that by giving the inventor "control over the use and distribution of their ideas," intellectual property law "encourage[s] them to invest efficiently in the production of new ideas and works of authorship").

362. See Mark A. Lemley, *supra* note 5, at 129-30.

363. See Burk & Lemley, *supra* note 1, at 1605-07 (citing the telecommunications industry as an empirical example). Innovation is the combination of invention and investment, in which "invention of itself produces no economic effect, while patent-based innovation has a positive impact on the economic system as new industries and new goods displace the old." *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1529 n.1 (Fed. Cir. 1995) (Newman, J., concurring) (citing JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY (3d ed. 1950)).

364. The competitive innovation theory stands in sharp contrast to ex post justifications for patent law, such as the prospect theory, where patent protection is seen as crucial to development and commercialization of the invention. See Mark F. Grady & Jay I. Alexander, *Patent Law and Rent Dissipation*, 78 VA. L. REV. 305 (1992) (refining the prospect theory by focusing on rent dissipation in patent law); Kieff, *supra* note 355 (articulating the commercialization theory of patent law); Kitch, *supra* note 6, at 276-78 (describing the prospect theory of patents); Lemley, *supra* note 5, at 130-31.

365. Burk & Lemley, *supra* note 1, at 1604-07 (noting that "Ken Arrow has argued that competition, not monopoly, best spurs innovation because, to simplify greatly, companies in a competitive marketplace will innovate in order to avoid losing, while monopolists can afford to be lazy") (citing Kenneth J. Arrow, *Economic Welfare and the Allocation of Research for Invention*, in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY 609, 619-20 (Nat'l Bureau of Econ. Research ed. 1962)).

avoid losing their market position, and therefore, monopolists will be unable to remain dormant.³⁶⁶

The competitive innovation theory advocates a narrow scope for patent rights. Patents should protect only particular ways to compete in the marketplace; they should not give patent holders complete monopolies.³⁶⁷ The competitive innovation theory argues for patents to give less than perfect monopoly control of the market.³⁶⁸ Therefore, the competitive innovation theory suggests a narrow patent scope as the best way to ensure this imperfect control.³⁶⁹

The specification methodology can be viewed as implementing a competitive innovation patent theory through its claim scope paradigm. The resulting claim scope under the approach is tailored to the patentee's invention.³⁷⁰ More specifically, the range of the invention's embodiments that the specification teaches to one skilled in the art limits the literal scope of the claims. Consequently, the patentee does not gain control over every implementation of the invention unless the specification teaches every implementation. The patentee gets enough protection to exclude others from copying the patentee's exact work, but not such broad protection as would likely give the patentee monopoly power.

The specification methodology, however, does not perfectly implement the competitive innovation patent theory. The resulting claim scope goes further than the specific embodiments described in the specification.³⁷¹ The competitive innovation theory requires patents to "be narrowly circumscribed to particular implementations of an invention, and ... generally [does] not give the patentee the

366. *See id.* at 1604.

367. *Id.* at 1605-07.

368. *Id.*

369. *Id.* at 1607 ("Competition advocates would argue that, at the very least, patent rights should be narrow and should give less than perfect monopoly control.").

370. *See Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, *16 (Fed. Cir. July 12, 2005) (en banc) (indicating that the specification methodology "is likely to capture the scope of the actual invention more accurately" than other methodologies).

371. *See id.* at *16 (noting that "it is important to keep in mind that the purposes of the specification are to teach and enable those of skill in the art to make and use the invention"); *Wang Labs., Inc. v. Am. Online, Inc.*, 197 F.3d 1377, 1379-82 (Fed. Cir. 1999) (looking at the specification to determine what someone skilled in the art would understand to be the disclosed invention's scope); *see also supra* notes 307-12 and accompanying text; Figure 3, *supra* p. 109.

right to control competition in an economic market.”³⁷² The specification methodology gives more protection than that, limiting claim scope to the constructive specification rather than the specification’s literal teachings. The methodology allows the claim scope to extend to the invention’s embodiments that one skilled in the art would think of, not just those that the patentee specifically considered. Additionally, the methodology does not consider the patent’s actual industry or whether the resulting claim scope will or will not give the patentee monopoly control. Instead, the methodology focuses on the patent document and the teachings on the invention.

The specification methodology’s claim scope paradigm is still close to implementing, at the least, what can be considered a “modified” form of the competitive innovation theory.³⁷³ The claim scope paradigm gives the patentee protection broader than the specific embodiments, but still limited to those embodiments constructively disclosed in the specification.³⁷⁴ Thus, if an evaluator wants to further the competitive innovation theory of patent protection, the specification methodology should be selected. The specification methodology’s claim scope paradigm creates claim definitions that

372. Burk & Lemley, *supra* note 1, at 1605.

373. See Figure 2, *supra* p. 34. The specification methodology’s implementation of a modified competitive innovation theory appears to be similar to a middle ground patent scope that Duffy identified in his work critiquing the prospect theory. See John F. Duffy, *Rethinking the Prospect Theory of Patents*, 71 U. CHI. L. REV. 439, 499-500 (2004). As Duffy describes it:

A very narrow definition of patent rights—for example, covering only that particular laser—can be rejected because such narrowly defined rights will not allow the inventor to capture the benefits of investments in developing the laser. In other words, the investments to develop the laser will have enormous spillover effects because of the narrow definition of the patentee’s property rights. The choice between a particular class of lasers and all lasers is more difficult. The issue should turn on whether the broader rights are necessary to protect the investments that have been made in inventing, and that will be made in developing, the patentee’s particular laser. If the patent has that scope, then broadening the patent further is unnecessary.

Id.

374. In contrast, the specification methodology’s claim scope paradigm does not implement the cumulative innovation patent theory. The cumulative innovation theory, as Merges and Nelson formulated, tailors patent scope to provide adequate incentives to initial inventors, while not deterring subsequent improvers. See Merges & Nelson, *supra* note 1, at 876-79; see also Burk & Lemley, *supra* note 1, at 1607-08 (using the phrase “cumulative innovation”). The specification methodology employs no such tailoring, ignoring whether an invention is a pioneer, an initial invention in a field, or an improvement. Additionally, when interpreting a claim, the specification methodology does not inquire about what effect the resulting claim scope will have on follow-up inventions.

come close to implementing the competitive innovation theory. Its claim scope paradigm would score well under this patent theory.

2. Prospect Theory (Possibly) Supports the Selection of the Heavy Presumption Methodology

In contrast, the heavy presumption methodology does not necessarily score well under any particular patent theory. The methodology's claim scope paradigm produces a patent scope that is connected only loosely to the specification's teachings. The heavy presumption methodology focuses almost entirely on simply giving the patent claims their ordinarily understood meanings. The methodology's claim scope paradigm shows little concern for whether the resulting patent scope relates to the patentee's inventive activities.³⁷⁵ The paradigm's inability to produce a definite relationship between the patent's scope and the described invention hampers any association the methodology can have with a specific patent theory.

The extent of the heavy presumption methodology's ability to implement the prospect theory of patents provides a good example. The methodology arguably implements the prospect theory. By not limiting the patent scope to the specification's specific embodiments,³⁷⁶ the methodology potentially creates a range of exclusivity far greater than the patentee's specific implementation of the invention. The methodology may give the patentee the greatest

375. See *Phillips v. AWH Corp. (Phillips III)*, Nos. 03-1269, 03-1286, 2005 WL 1620331, at *14 (Fed. Cir. July 12, 2005) (en banc) (noting how the heavy presumption methodology results in interpretations that are abstract from, and out of context with, the disclosed invention); *Housey Pharm. v. Astrazeneca UK Ltd.*, 366 F.3d 1348, 1358 (Fed. Cir. 2004) (Newman, J., dissenting) (stating that the heavy "presumption dissociates the term from the invention described, enabled, and prosecuted by the inventor, and places an unnecessary burden on the inventor who wants simply to restore the meaning that the inventor and the examiner, and others in the field of the invention, clearly understand"); *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 898 (Fed. Cir. 2004) (Michel, J., concurring) (indicating that the current trend emphasizing ordinary meaning "compromises two fundamental tenets of the patent system: first, that the applicant must be the 'inventor' of the things covered by the patent claims, and second, that the right to exclude will be no broader than the inventor's enabling disclosure").

376. See *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1204 (Fed. Cir. 2002); see also *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) ("[T]his court has expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.").

possible breadth of patent protection because dictionary definitions provide the methodology's only substantive limitation on patent scope.³⁷⁷ Affording a patent broad protection well beyond the patentee's specific embodiments may give the patent holder the necessary protection to successfully commercialize and improve upon the invention, and thus it may further the prospect theory.

The prospect theory that Kitch developed contends that a patent functions as a "prospect," encouraging the invention's further development and commercialization.³⁷⁸ Patent protection is viewed as providing ex post incentives to prompt the patented invention's efficient maturity.³⁷⁹ By giving the patentee exclusive control over her prospect, the patentee "has an incentive to make investments to maximize the patent's value without fear that the fruits of the investment will produce unpatentable information that competitors can appropriate."³⁸⁰ Under this theory, patent law provides the patentee "breathing room" to develop, market, and improve upon the invention without interference from others.³⁸¹ In addition, patent protection allows the patentee to coordinate any development or improvement through licensing.³⁸² The prospect theory argues that "technological information is a resource which will not be used efficiently absent exclusive ownership," and patent law provides this exclusive ownership.³⁸³

The prospect theory, therefore, implies necessarily that patent law should provide an inventor with a broad patent scope. The patent must not only provide exclusivity over the invention, but also exclusivity over the complete prospect surrounding the invention.³⁸⁴ Patent law must give the patentee broad patent protection covering

377. See *Phillips III*, 2005 WL 1620331, at *14-15 (concluding that the heavy presumption methodology will "systematically cause the construction of the claim to be unduly expansive"); *SuperGuide*, 358 F.3d at 898 (Michel, J., concurring) (indicating that "[t]he ultimate result of this trend is claim constructions providing the broadest possible scope to claim terms, absent express limiting language in the claim, specification or prosecution history, but regardless of what the inventors actually invented").

378. See *Kitch*, *supra* note 6, at 265, 276, 285-86; see also *Duffy*, *supra* note 373, at 440-42.

379. See *Burk & Lemley*, *supra* note 1, at 1601 (noting that prospect theory views the patent system as providing no incentive to invent, but rather "giving exclusive rights to successful inventors in order to encourage future invention"); *Lemley*, *supra* note 5, at 132-33.

380. *Kitch*, *supra* note 6, at 276.

381. See *id.* at 276-77; see also *Merges & Nelson*, *supra* note 1, at 871.

382. See *Kitch*, *supra* note 6, at 279; see also *Merges & Nelson*, *supra* note 1, at 871.

383. *Kitch*, *supra* note 6, at 276; see also *Burk & Lemley*, *supra* note 1, at 1601-03.

384. See *Burk & Lemley*, *supra* note 1, at 1603-04.

the “matrix of technological possibilities” regarding the invention, including its commercial embodiments and potential improvements.³⁸⁵ This broad protection creates the *ex post* incentive to develop the invention because it makes the patentee the sole controller of the invention’s development or improvement.³⁸⁶

The heavy presumption methodology, although having the potential to create broad protection, does not stay true to the prospect theory. In most cases, its claim scope paradigm does not tune the resulting patent scope to any other aspect of the patent, the invention, or the technology underlying the patent.³⁸⁷ A claim’s definition under this methodology is not linked necessarily to the patentee’s inventive activities, and the prospect theory is focused on such activities.³⁸⁸ Thus, this claim scope paradigm cannot ensure that the patentee will have the protection necessary to facilitate coordination of the invention’s development and improvement. The heavy presumption methodology can create a claim scope that fails to protect aspects of the invention altogether.³⁸⁹

This potential for the defined claim scope to be dissociated from the patentee’s invention frustrates the heavy presumption methodology’s ability to implement any particular patent theory. Almost all patent theories are centered, in some way, around the patentee’s actual inventive activities. The competitive innovation theory suggests patent protection that is tailored closely to the patentee’s inventive activities.³⁹⁰ The prospect theory, in contrast, supports patent scope that provides broad protection for what the patentee has actually developed.³⁹¹ Other theories, such as the cumulative innovation theory, are also tuned to the patentee’s invention.³⁹²

385. See Kitch, *supra* note 6, at 271. “A prospect theory therefore suggests that patents should be granted early in the invention process, and should have broad scope and few exceptions.” Burk & Lemley, *supra* note 1, at 1604.

386. See Kitch, *supra* note 6, at 275-79.

387. See Figure 4, *supra* p. 115.

388. See Phillips v. AWH Corp. (*Phillips III*), Nos. 03-1269, 03-1286, 2005 WL 1620331, at *14-17 (Fed. Cir. July 12, 2005) (en banc) (concluding that under this methodology, the resulting construction is “abstract” and “out of [the] particular context” of the patentee’s disclosed invention); Kitch, *supra* note 6, at 276-77.

389. See, e.g., K-2 Corp. v. Salomon S.A., 191 F.3d 1356 (Fed. Cir. 1999).

390. See Burk & Lemley, *supra* note 1, at 1607.

391. See Kitch, *supra* note 6, at 275-79.

392. See Burk & Lemley, *supra* note 1, at 1607-10; Merges & Nelson, *supra* note 1, at 876-79.

Thus, only an evaluator who subscribed to the prospect theory would possibly favor the heavy presumption methodology. The methodology's claim scope paradigm can result in a broad claim scope, falling in line with the prospect theory, though the claim scope paradigm's inability to fix patent scope to the patentee's invention in some manner prevents it from successfully implementing the prospect theory.

C. Benefits to Using Claim Scope Paradigm as a Criterion

The benefits to using claim scope paradigm as a criterion are twofold. First, using this criterion ensures that the effect that a methodology has on the patent claim's substantive function is taken into account. Interpretation methodologies, as demonstrated, clearly impact the extent of patent protection. By using a claim scope paradigm in the methodology evaluation process, this impact can be recognized and methodologies can be evaluated as to whether they produce a favorable claim scope. Second, identifying the claim scope paradigm allows methodologies to become highly effective patent policy levers. The discretion and direct effect that a methodology has on a patent scope makes it a perfect tool for adjusting and interjecting policy and theory into the patent system.

1. Claim Scope Paradigm Addresses a Methodology's Effect on the Substantive Function of Patent Claims

The main benefit to using claim scope paradigm as an evaluation criterion is that it addresses a methodology's effect on the main function of patent claims—substantively defining patent scope. A methodology's claim scope paradigm discloses the impact that the methodology will have on the specifics of claim scope. This result has been demonstrated already for the two recent interpretation methodologies. By identifying its claim scope paradigm, one can now see that the specification methodology produces a claim scope that is tailored to the fully disclosed invention. The claim scope paradigm in the heavy presumption methodology shows that the methodology will result in a claim scope that is tied only loosely to the patentee's invention. By identifying each methodology's claim scope paradigm, one can tell how that methodology will impact the scope of patent protection that the defined claim will give.

The full impact of a claim interpretation methodology on the patent claim's substantive function can then be properly assessed. Claims are interpreted to answer fundamental patent questions, such as which product or processes the patent holder may exclude and whether the patent's scope of exclusivity is valid and, therefore, protectable. Because a claim scope paradigm exists, the methodology chosen has a direct impact on the answers to these questions. By recognizing a methodology's claim scope paradigm, courts can confront a methodology's role in shaping the substantive function of patent claims. Courts can then evaluate methodologies based on how the methodologies influence the basic patent issues of infringement and validity. Methodologies can be chosen that produce a desired claim scope or, at the least, do not frustrate patent policy.

The claim scope paradigm criterion recognizes the normative features of claim interpretation methodologies. The criterion speaks to the substantive aspect of patent claims, an aspect that the certainty criterion fails to address. That being said, using the claim scope paradigm as a benchmark does not mean that the certainty criterion must be discarded. The two criteria can be used in tandem.³⁹³ In no way does the introduction of the claim scope paradigm criterion mean that methodologies should never be examined as to their predictability. A claim interpretation methodology can be evaluated under both criteria, and methodologies can be considered as to how well they score under each standard. Use of both criteria in the evaluation process is depicted graphically in Figure 5 below.

393. One commentator has collectively used multiple criteria to judge interpretation methodologies. See Nard, *supra* note 57, at 35-43, 65-82 (using certainty, institutional competence, and a methodology's effect on ex post innovation as criteria to evaluate a methodology identified as "hypertextualism").

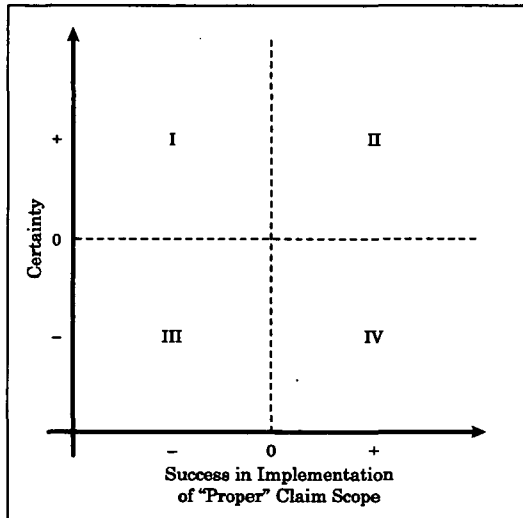


Figure 5

The more certainty that a methodology produces in defining claims, the better it scores under that criterion and the further up the vertical axis it moves in Figure 5. Methodologies that create some certainty—"positive" certainty—as to the resulting definition are plotted in the positive regions on the vertical axis in either quadrant I or II. A similar analysis is performed for the methodology's claim scope paradigm. The greater the success that the methodology's claim scope paradigm has in implementing what is considered the proper claim scope, the better the methodology scores under the claim scope paradigm standard. The result of this evaluation is graphed relative to the horizontal axis in Figure 5. Again, as with the certainty criterion, a methodology's claim scope paradigm may frustrate the preferred patent scope's implementation, and thus score poorly.³⁹⁴ Methodologies in which the claim

394. A good example of this situation would be the evaluation of the heavy presumption methodology's ability to implement the competitive innovation patent theory. The heavy presumption methodology's claim scope paradigm does not tailor claim scope to the disclosed invention. In fact, it does the opposite. *See supra* Part IV.B.2. Such a methodology would score poorly in an evaluation in which the preferred claim scope is limited to the patentee's actual inventive activities.

scope paradigm is favored will fall in the positive part of the horizontal axis in either quadrant II or IV.

Methodologies, therefore, become more favorable as they move into the upper right hand quadrant or quadrant II. Methodologies falling in quadrant II both increase certainty and have a claim scope paradigm that is at least somewhat successful in implementing the preferred patent scope.

Use of both criteria can be quite successful and can ensure that a methodology maximizes both functions of patent claims—public notice and the substantive defining of claim scope. Moreover, nothing indicates that maximization of one benchmark is mutually exclusive of the other. The opposite may even be true; a positive relationship could exist between the two criteria. As a methodology comes closer to producing what is considered the proper claim scope, that methodology may necessarily produce a more predictable definition. At the least, taking both criteria into account ensures that both functions of the patent claim are being considered when adopting a method for interpreting them.

2. Recognizing that the Claim Scope Paradigm Facilitates Using Claim Interpretation Methodology as a Highly Effective Patent Policy Lever

The identification of a methodology's claim scope paradigm also facilitates the methodology's use as a patent policy lever. As Burk and Lemley recognized recently, the patent system gives courts considerable discretion in implementing patent law.³⁹⁵ This discretion, in turn, allows courts to embed policy considerations in their patent decisions.³⁹⁶ Burk and Lemley use the term "policy levers" to describe these areas of discretion that affect patent policy.³⁹⁷ They focus their patent policy lever discussion on using court discretion to create "industry-sensitive policy."³⁹⁸ Certain policy levers that they identify, such as the utility and written description require-

395. See Burk & Lemley, *supra* note 1, at 1630, 1638-40.

396. *Id.*

397. See *id.* at 1630 (using the "policy lever" terminology); see also Pamela Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 YALE L.J. 1575, 1581 (2002) (discussing policy levers in the reverse engineering context, but with regard to specific industries and intellectual property generally).

398. See Burk & Lemley, *supra* note 1, at 1630.

ments, allow courts to shape patent law to have different impacts on different industries.³⁹⁹ One potential policy lever Burk and Lemley do not discuss is claim interpretation methodology.

Claim interpretation methodology possesses all of the attributes of a patent policy lever. Courts are given a wide range of discretion in formulating claim interpretation methodologies. Moreover, in using this discretion, courts have embedded claim scope paradigms into their methodologies.⁴⁰⁰ These paradigms directly affect the extent of patent protection.⁴⁰¹ By using its discretion, a court can use interpretation methodology as a “lever” to implement specific patent policies by directly impacting claim scope. The available discretion, combined with the ability to affect patent scope, makes claim interpretation methodology eligible as a policy lever.

Interpretation methodology is a highly effective policy lever. A methodology’s claim scope paradigm imputes patent theory into the definitional process, as the defined claim’s scope reflects the claim scope paradigm. Injecting patent policy at the analysis’s interpretation stage introduces such policy at the patent process’s most basic level. Claim interpretation is the first step in determining infringement and validity, the two major patent inquiries.⁴⁰² Any policy introduced at the interpretation stage propagates throughout the patent analysis. The construed claim is used to determine which competitors a patentee can exclude or whether the patent is valid and enforceable against those competitors.⁴⁰³ The claim scope paradigm’s view on proper claim scope shapes the complete patent analysis because claims are at the base of the analysis. If the policy lever needs to be moved, the interpretation methodology that is used can be changed simply. That change of claim scope paradigm at the interpretation level will then ripple throughout the patent process.

Claim interpretation methodology can be contrasted with the policy levers currently under discussion. These levers mainly include various tests for determining the validity of the patent grant.⁴⁰⁴ They address, for example, whether the patented invention

399. *Id.* at 1641-58 (detailing other existing policy levers).

400. *See supra* Part IV.A.

401. *See supra* Part IV.B.

402. *See supra* notes 95-100 and accompanying text.

403. *See id.*

404. *See* Burk & Lemley, *supra* note 1, at 1641-68. The policy levers that Burk and Lemley discuss as either currently in use or of potential use also include levers not related to validity

is obvious in light of the prior art or whether the patented invention is enabled sufficiently.⁴⁰⁵ The reason interpretation methodology is a better lever than these validity tests is timing; both of these known levers are triggered after the patent claims are interpreted.⁴⁰⁶ The claim scope paradigm has appeared already in the defined claim when these known levers are activated. Patent policy is set already, by the interpretation methodology chosen, before these recognized policy levers can take effect. Interpretation methodology also impacts infringement, the other major part of most patent questions.⁴⁰⁷ Few, if any, currently recognized patent policy levers address this part of the patent system.⁴⁰⁸ Without recognizing claim interpretation as a policy lever, a base level policy tool will not be fully utilized and the potential frustration that it can cause other policy levers will go unnoticed.

Two concerns exist with using claim interpretation methodology as a policy lever. The first focuses on the propriety of courts setting patent policy, particularly at such a low level, without any clear direction from Congress. If courts look to and compare claim scope paradigms, they are making substantive judgments about what is considered optimal patent protection. Such substantive decisions arguably should be made only by policymakers, who have access to complete information on the industry effects of patents, and not by courts, which only have information about the particular case before them. This objection to courts employing policy levers may be especially valid when dealing with claim interpretation. The court should focus solely on giving the claim language meaning at the claim construction stage, not making patent policy. If the courts engage in any policy analysis, it should come later in the patent process, where statutes constrain the extent to which court-employed policy levers can swing.

The fallacy with this concern is that courts are already making substantive judgments when choosing claim interpretation method-

questions. However, the majority of the levers are tied in some way to the patentability of the subject matter at issue. *Id.*

405. *Id.* at 1651-54.

406. *See supra* notes 71-79, 95-100.

407. *See supra* notes 64-70, 100.

408. *See Burk & Lemley, supra* note 1, at 1641-68. For example, the policy levers of experimental use, *id.* at 1646-48, and reverse doctrine of equivalents, *id.* at 1657-58, are some of the few that concern questions of patent infringement.

ologies, regardless of propriety. No statutes exist that dictate how claims are interpreted, and claim interpretation methodologies include claim scope paradigms that embed patent theory in the resulting claim definitions. When courts are faced with choices between methodologies, they are also facing patent policy choices.⁴⁰⁹ For example, compare the majority and dissent in *Microsoft*. Both choose different methodologies, but they made this choice in the real context of whether Multi-Tech's patents will give them protection over voice and data transmissions on both telephone connections and the Internet.⁴¹⁰ The methodology choice in *Microsoft* was intertwined with the question of how broad of a transmission system Multi-Tech should own exclusively. The same situation existed in *SuperGuide*, where a decision on proper methodology was tied to a decision on the proper claim scope, namely, whether to include digital television signals or not in the patentee's scope of protection.⁴¹¹ Again, a methodology question and a question of a patent's impact on the satellite television industry become one and the same. The mere existence of a claim scope paradigm means that all decisions regarding methodologies are also decisions regarding patent policy.

Courts will thus make policy decisions when they construe claims regardless of whether they openly recognize this fact and use methodology as a lever. One benefit of establishing claim scope paradigm as a criterion is that these policy decisions become transparent.⁴¹² Courts and observers will at least know the policy implications of selecting one methodology over the other. Furthermore, with the inevitability of patent policy becoming tied to interpretation methodology, courts might as well use methodology as a policy lever. If a certain methodology is producing a claim scope that the courts disfavor, the courts, can at a minimum, switch to a methodology with a more favorable claim scope paradigm.

409. See Burk & Lemley, *supra* note 1, at 1674 (noting how "[t]he Federal Circuit cannot avoid making policy judgments" when it uses its discretion).

410. See *Microsoft Corp. v. Multi-Tech Sys., Inc.* 357 F.3d 1340, 1348 (Fed. Cir. 2004); *id.* at 1354-55 (Rader, J., dissenting).

411. See *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 872, 877-79 (Fed. Cir. 2004).

412. See Burk & Lemley, *supra* note 1, at 1673-75 (noting that by making these policy decisions transparent, courts are more likely to face the policy implications of their decisions and ensure that they are congruent with innovation policy); see also John R. Thomas, *Formalism at the Federal Circuit*, 52 AM. U. L. REV. 771, 774 (2003).

The concern about methodology as a policy lever also underplays the ability of courts to make competent patent policy decisions. This is particularly apparent in the Federal Circuit. The Federal Circuit has an inherent expertise in the patent arena, considering that it exclusively handles all patent appeals.⁴¹³ The court has a real institutional competence when it comes to patent law and policy,⁴¹⁴ which primarily stems from its interaction with nearly every patent case filed in the United States.⁴¹⁵ The scientific and patent law background of some of the judges on the court also gives the court a significant degree of proficiency in the patent area.⁴¹⁶ No reason exists for the court not to use its knowledge and experience when selecting among methodologies and their claim scope paradigms. If such activity truly falls outside of the court's providence, Congress can always act and legislate a specific methodology that courts must use.⁴¹⁷

Another objection to using claim interpretation methodology as a policy lever is that such use will fuel game-playing problems by those drafting and obtaining patents.⁴¹⁸ Patent prosecutors, who help individuals obtain patents, react to patent rules to maximize the protection they obtain for their clients. A feedback of sorts exists, wherein a patent rule is established and patent prosecutors react to the rule.⁴¹⁹ Adopting a particular claim methodology will likely have ex ante effects.⁴²⁰ Patent prosecutors will change the way that patent claims and specifications are drafted in order to

413. See Cotropia, *supra* note 245, at 259-61; Dreyfuss, *supra* note 250, at 14-25 (assessing the effectiveness of the Federal Circuit in accomplishing the goals it was designed to achieve).

414. See Dreyfuss, *supra* note 250, at 17-21.

415. *Id.*

416. See Rai, *supra* note 3, at 1068 (noting, however, that even this expertise is insufficient to give the court competence in factual issues).

417. See Burk & Lemley, *supra* note 1, at 1630-31 (noting how Congress has tailored patent legislation to particular industries).

418. See Boalick, *supra* note 147, at 270-71 (noting the interaction between the dedication rule and patent drafting); R. Polk Wagner, *Reconsidering Estoppel: Patent Administration and the Failure of Festo*, 151 U. PA. L. REV. 159, 242-43 (2002) (discussing the ex ante effects of prosecution history estoppel).

419. See *Festo Corp. v. Shoketsu Kinzoku Kogyu Kabushiki Co.*, 535 U.S. 722, 739 (2002); *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 41 (1997) (Ginsburg, J., concurring) (noting concern with how changes in patent rules affect the expectations of patentees during prosecution).

420. See Boalick, *supra* note 147, at 270-71; Wagner, *supra* note 418, at 242-43.

maximize patent scope under the new claim construction rules.⁴²¹ Such a feedback potentially could neutralize a claim interpretation methodology's ability to act as a policy lever. For example, the specification methodology is chosen because it implements the competitive innovation theory, thereby limiting claim scope to the disclosed invention. Patent practitioners will likely react to this methodology's adoption by redrafting patent claims and the specification to maximize the resulting patent scope. Because of this feedback, patent scope could be larger than intended, thereby inhibiting the implementation of the competitive innovation theory because of the adjustments practitioners may make.

The ability of this feedback loop to frustrate the interpretation methodology's ability to act as a policy lever is overstated. Real world limitations exist on the changes that patent prosecutors can make to the patent document. The disclosure rules in 35 U.S.C. § 112 dictate the specifications' contents. Every patentee must set forth a written description of each's invention that is also enabling.⁴²² In addition, the patentee must be the inventor of the claimed subject matter.⁴²³ The patent prosecutor is therefore constrained to some extent by the patentee's inventive activities. Also, not all reactions frustrate the policies that courts are trying to further. For example, consider the specific feedback described above. If the specification methodology's adoption causes patent prosecutors to include more information in the specification in hopes of expanding what constitutes the disclosed invention, that reaction will not frustrate the competitive innovation theory. The resulting claim scope will still be tailored to the disclosed invention. The resulting scope of protection will still only give the patentee protection for her invention and the variations recognized by one skilled in the art. Finally, an equilibrium is reachable once a single methodology and claim scope paradigm is chosen. Practitioners only react when rules are changed or are unclear. Courts may change their rules in reaction to the changes practitioners make, but, in each feedback step, the amount of change from the previous state

421. Wagner, *supra* note 418, at 242-43.

422. See *supra* Part II.B.1.

423. See 35 U.S.C. § 115, § 102(f) (2000); *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1348-49 (Fed. Cir. 1998) (noting that a patent is invalid if the named inventor did not invent the claimed invention).

will be smaller and the action-reaction cycle will eventually come to rest.

CONCLUSION

Claim interpretation involves more than simply trying to determine the meaning of claim terms. Claim interpretation includes choices among available patent scopes. These choices are made by selecting a particular claim interpretation methodology. The way claims are defined directly affects the resulting literal claim scope, and thus, the extent of the power that the patentee can exert on a given industry. This effect on claim scope is a methodology's claim scope paradigm. The current debate regarding claim interpretation fails to fully recognize the relationship between claim interpretation methodology and patent scope. The recent *Phillips III* decision is a step in the right direction, showing some appreciation by the Federal Circuit for the relationship between methodology and claim scope. However, the court and commentators still fail to gain the full benefit from identifying a methodology's claim scope paradigm and then recognizing the impact the methodology has on patent policy. Such recognition will facilitate courts to use methodologies as a highly effective patent policy lever.

