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Distinctly Claiming an Invention

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DISTINCTLY CLAIMING AN INVENTION

Karen E. Sandrik*

ABSTRACT

*Patent law has a problem. Its foundation rests on the principle that a patent will clearly define its boundaries through its claims—the metes and bounds—yet the very standard for defining the boundaries is unclear. In 2014, the Supreme Court sought to guide courts and the patent bar on the level of precision needed when drafting these claims. Endorsing a “reasonable certainty” standard, the Court had one goal in *Nautilus v. Biosig Instruments, Inc.*: to give definiteness to the law of patent indefiniteness. Today, instead of a unitary definiteness standard that is applied across all forums of patent adjudication, there are at least three different standards.*

This Article argues that contract law offers a fresh perspective on the “zone of uncertainty” in patent claims. In both patent law and contract law, there are inherent limitations to the language that is used to express an agreement between the two parties in a contract and to the boundaries of an invention claimed in a patent. This means, in turn, that all contracts are incomplete and that all patents have some degree of uncertainty. With parallel doctrines of indefiniteness, attention to similarities and dissimilarities in contract law and patent law can foster creative and interesting new ways of understanding and assessing the current approach taken in patent law regarding the level of precision demanded of patent claims in both their pre- and post-issuance state.

TABLE OF CONTENTS

I. INTRODUCTION	542
II. PRIMER: THE DEFINITENESS REQUIREMENT	546
III. PRE-2014 INDEFINITENESS STANDARD.....	551
A. EX PARTE MIYAZAKI: A STRICTER STANDARD	551
B. THE “INSOLUBLY AMBIGUOUS” STANDARD: THE LESS STRICT STANDARD	553
IV. THE “REASONABLE CERTAINTY” STANDARD	555
A. “SPACED RELATIONSHIP”	555
B. <i>NAUTILUS, INC. v. BIOSIG INSTRUMENTS, INC.</i>	557

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V.	POST-2014 INDEFINITENESS STANDARD	558
A.	GRANTED PATENTS IN FEDERAL LITIGATION.....	558
B.	PRE-ISSUANCE PATENT CLAIMS & POST-ISSUANCE PATENTS IN AIA PROCEEDINGS	562
VI.	LOOKING TO CONTRACT LAW TO RETHINK PATENT LAW'S INDEFINITENESS STANDARD	566
A.	INDEFINITE CONTRACTS	566
B.	AMBIGUOUS CONTRACTS	570
C.	MOVING TOWARDS GREATER CERTAINTY IN PATENT LAW.....	575
VII.	CONCLUSION	580

I. INTRODUCTION

PATENT law has a problem. Patents are required to define the metes and bounds of the inventions they claim,¹ yet the metes and bounds of the definiteness requirement are entirely uncertain.

In patent law, the patent specification must “conclude with one or more claims particularly pointing out and *distinctly* claiming the subject matter which the inventor or a joint inventor regards as the invention.”² This is often called the “definiteness” requirement or indefiniteness doctrine. As the Supreme Court has noted, “[T]he nature of language makes it impossible to capture the essence of a thing.”³ Given the statutory mandate of drafting claims that distinctly claim the subject matter, combined with the inherently imperfect system of language, one might expect that the indefiniteness standard would be clear and unambiguous so that patent lawyers might reflect a similarly high degree of clarity and unambiguity when drafting patent claims. Yet for decades the indefiniteness doctrine has gone unchecked, leading to a weak standard of claim definiteness.

In 2014, the Supreme Court stepped into the sea of indefiniteness, replacing the predominate definiteness standard—where “[t]he definiteness of claim terms depends on whether those terms can be given *any* reasonable meaning,”⁴—with its own standard: a claim is indefinite if it fails “to

1. “[T]he name of the game is the claim.” This oft-used phrase is attributed to the late Judge Giles Sutherland Rich. See *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998) (quoting Giles Sutherland Rich, *Extent of Protection and Interpretation of Claims—American Perspectives*, 21 INT’L REV. INDUS. PROP. & COPYRIGHT L. 497, 499 (1990)). There is also an argument that patent law should not be looking to the metes and bounds—the “fence posts”—for the scope of the invention, but rather to the central feature of the invention. See Dan L. Burk & Mark A. Lemley, *Fence Posts or Sign Posts? Rethinking Patent Claim Construction*, 157 U. PA. L. REV. 1743, 1799 (2009) (arguing that “[r]ather than relying on the illusion of peripheral ‘fence posts,’ patent law may do better to . . . look to stability of central ‘sign posts’”).

2. 35 U.S.C. § 112(b) (2012) (emphasis added).

3. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 731 (2002).

4. *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (emphasis added).

inform, with reasonable certainty, those skilled in the art about the scope of the invention.”⁵ While the Court wanted this new standard to steer clear of the “zone of uncertainty,”⁶ this new standard has failed to generate the needed certainty and clarity to the indefiniteness doctrine.

Although the *Nautilus* Court sought to create a unitary definiteness standard that is applied across all forums of patent adjudication—the United States Patent and Trademark Office (USPTO), federal courts, and the Patent Trial and Appeal Board (PTAB)—this Article shows that there are currently at least three different standards. As a result, after *Nautilus*, the indefiniteness surrounding indefiniteness has only gotten more indefinite. Such compounding indefiniteness substantially undermines several of the core commitments of the patent system.

One primary goal of the patent system is the public disclosure of technical knowledge to third parties to aid and support innovation and technological progress.⁷ Accordingly, certainty to what is claimed and disclosed in a patent application is a critical component to the success of any patent law system.⁸ As patent scholars such as John Golden have explained, “The certainty with which patent scope is defined is a crucial variable in determining whether the net impact of patents is positive or negative.”⁹ There are many of the negative aspects of the so-called broken patent system:¹⁰ for example, high prices of pharmaceuticals¹¹ and

5. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901, 911 (2014) (finding the previous standards served to “breed lower court confusion, for they lack[ed] the precision § 112(b) demands”).

6. *Id.* at 909.

7. *See Eldred v. Ashcroft*, 537 U.S. 186, 224 (2003) (Stevens, J., dissenting) (“Complete disclosure as a precondition to the issuance of a patent is part of the *quid pro quo* that justifies the limited monopoly for the inventor as consideration for full and immediate access by the public when the limited time expires.” (citing *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 175 (1824))); *see also Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998) (describing the patent system as one that is “a carefully crafted bargain that encourages both the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time”).

8. *See Sarah Rajec, Third-Party Interests and the Property Law Misfit in Patent Law*, 41 *CARDOZO L. REV.* 1859, 1900 (explaining “[u]nclear boundaries increase uncertainty for rights holders and raise information costs for third parties . . .”).

9. John M. Golden, *Construing Patent Claims According to Their “Interpretive Community”*: A Call for an Attorney-Plus-Artisan Perspective, 21 *HARV. J.L. & TECH.* 321, 323 (2008); *see also Greg Reilly, Completing the Picture of Uncertain Patent Scope*, 91 *WASH. U. L. REV.* 1353, 1353 (2014) (“Uncertain patent scope is perhaps the most significant problem facing the patent system.”); JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK*, 11 (2008) (the authors seek to start answering a question they pose at the beginning of new section: “Do patents give inventors positive net incentives to invest in innovation?”).

10. *See BESSEN & MEURER, supra* note 9, at 2–3 (cataloguing the criticism of the patent system from industry executives to academics). Bessen and Meurer also explain that “[b]y the late 1990s, the costs that patents imposed on public firms outweighed the benefits. This provides clear empirical evidence that the patent system is broken.” *Id.* at 5.

11. *See, e.g., Tahir Amin, Patent Abuse is Driving up Drug Prices. Just look at Lantus*, *STAT* (Dec. 7, 2018), <https://www.statnews.com/2018/12/07/patent-abuse-rising-drug-prices-lantus/> [<https://perma.cc/9M2P-Q9RJ>] (arguing that “[p]atent abuse by drug makers is one of the most influential drivers of our pricing problem”).

frequently stalled research and innovation.¹² Without certainty of the metes and bounds of the patent identifying the space that the patent takes away from others, in terms of research and development (at least without a license), worldwide collaboration and competition cannot possibly be at its best.¹³ Rather than argue, as other scholars have, that the patent system should simply be abolished,¹⁴ this Article shows that a more definite definiteness standard could go a long way towards fulfilling the patent system's commitments to disclosure and innovation.

Although the disclosure function of patent law is imperfect,¹⁵ patents do broadly disseminate nontechnical, helpful knowledge, as well as provide information to potential investors of the relevant inventions.¹⁶ When this disclosure—both technical and nontechnical—is effective, it follows that, at least in many instances, the impact of patents is positive.¹⁷ Patents

12. See *Time to Fix Patents*, ECONOMIST: LEADERS (Aug. 8, 2015), <https://www.economist.com/leaders/2015/08/08/time-to-fix-patents> [<https://perma.cc/M3KR-7YQT>].

13. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004))).

14. See generally MICHELE BOLDRIN & DAVID LEVINE, *AGAINST INTELLECTUAL MONOPOLY* (2008) (arguing it is time to consider abolishing the patent system, as the authors find no evidence that patents actually serve to increase innovation).

15. Patent scholars have highlighted that patent disclosure is imperfect both in its efficacy of providing notice and imparting useful information to scientists and innovators. See, e.g., Colleen V. Chien, *Contextualizing Patent Disclosure*, 69 VAND. L. REV. 1849, 1849 (2016) (finding patents are not performing the disclosure function well because “[t]he average patent is written in legalese, uses vague language, and is hard to connect to commercial activity”); Jeanne C. Fromer, *Patent Disclosure*, 94 IOWA L. REV. 539, 560–62 (2009) (arguing the patent document itself is not an effective means of disclosure); Timothy R. Holbrook, *Possession in Patent Law*, 59 SMU L. REV. 123, 139–46 (2006) (making the case that patent law does an inadequate job of teaching the technical information to skilled artisans); Mark A. Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19, 21–25 (arguing scientists and innovators largely ignore patents); Sean B. Seymore, *Uninformative Patents*, 55 HOUS. L. REV. 377, 378 (2017) (arguing the “minimal disclosure threshold can produce patents that are *uninformative* from a technical standpoint, meaning that they provide little meaningful information to truly fulfill patent law’s disclosure function”). But see, e.g., Lisa Larrimore Ouellette, *Do Patents Disclose Useful Information?*, 25 HARV. J.L. & TECH. 545, 585 (2012) (conducting an empirical study in the nanotechnology industry and finding that “patents can be useful as sources of technical information”); Jason Rantanen, *Peripheral Disclosure*, 74 U. PITT. L. REV. 1, 39–41 (2012) (defending patent law’s disclosure system by arguing that “peripheral disclosure” enables patents to disseminate information in areas outside of the patent document itself).

16. See J. Jonas Anderson, *Nontechnical Disclosure*, 69 VAND. L. REV. 1573, 1574 (2016) (finding that “[p]atent law may fail to inform skilled artisans of the patented invention’s technical details to the degree we would desire, yet still provide valuable *nontechnical* information to people who are in a position to invest in the invention”); see also Clark D. Asay, *The Informational Value of Patents*, 31 BERKELEY TECH. L.J. 259, 265 (2016) (arguing patent disclosure has value in the form of information signaling); Sean B. Seymore, *The Teaching Function of Patents*, 85 NOTRE DAME L. REV. 621, 623–24 (2010) (explaining patents “signal[] research and development (R&D) strength to customers and competitors . . . inducing inventive activity,” as well as the patent document itself “serv[ing] as a form of technical literature”).

17. Bessen & Meurer explain that if there is better patent notice, by way of higher quality patent disclosure, for example, than this “[b]etter patent notice makes technology

play a critical role in innovation,¹⁸ and patent portfolios are viewed as one of the most important assets of corporate entities and research organizations. This is particularly true for the pharmaceutical industry, an industry that is largely dependent on global patent protection to support knowledge, product development, and collaboration in medical research.¹⁹ Without patents, innovation in the pharmaceutical industry would be eliminated or at least more than halved.²⁰

Moreover, “British economists, [C.T. Taylor and Z.A. Silberston,] estimated that pharmaceutical R&D expenditures would be reduced by 64 percent.”²¹ Edmund Kitch has also found that “a patent system lowers the cost for the owner of technological information of contracting with other firms possessing complementary information and resources.”²² In a time where global collaboration and knowledge development are needed, the scope of patent law must be clear for third parties—the public—to learn and use the information imparted by the four corners of the patent.

Patent scholars, such as Jason Rantanen and Robin Feldman, have argued that the pre-*Nautilus* standard was insufficient and that the post-*Nautilus* standard is still failing to bring the rigor needed to the indefiniteness doctrine.²³ What this Article offers to the scholarly debate is the idea that there is another body of law that can inform this debate that has not yet been explored: contract law. In both patent law and contract law, there are inherent limitations to the language that is used to express an agreement between the two parties in a contract and the boundaries of an invention claimed in a patent. This means, in turn, that all contracts are incomplete and that all patents have “[s]ome modicum of uncertainty.”²⁴

Contract law offers a fresh perspective on the “zone of uncertainty” in patent claims. In contract law, an agreement can have a high degree of

markets more efficient, and hence more attractive to small inventors”). BESSEN & MEURER, *supra* note 9, at 21.

18. This positive role in innovation is hampered, however, when there is uncertain patent scope. Michael Burstein has argued that the “[w]hen patents are of uncertain validity or scope, their mere presence creates risk and uncertainty that deters productive investments.” Michael J. Burstein, *Rethinking Standing in Patent Challenges*, 83 GEO. WASH. L. REV. 498, 503 (2015). To help combat this uncertainty and risk, he argues parties seeking to “quiet title” should have increased standing. *See id.*

19. *See* Jonathan DM Atkinson & Rachel Jones, *Intellectual Property and Its Role in the Pharmaceutical Industry*, 1 FUTURE MEDICINAL CHEMISTRY 1547, 1547 (2009) (“Strong IP systems can incite funding into knowledge development and, thus, promote innovation. This is particularly relevant for the pharmaceutical industry, which depends on patent protection to support its investments into medical research.”).

20. FED. TRADE COMM’N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY ch. 3, at 1–3, 9–11, 11 n.48, 17–20 (2003).

21. Henry G. Grabowski, *Patents and New Product Development in the Pharmaceutical and Biotechnology Industries*, in SCIENCE AND CENTS: EXPLORING THE ECONOMICS OF BIOTECHNOLOGY 87, 88 (John V. Duca & Mine K. Yücel eds., 2003).

22. Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 277 (1977).

23. *See* Section III.B and accompanying notes; *see also* BESSEN & MEURER, *supra* note 9, at 26 (making the policy suggestion to “[m]ake claims clear and unambiguous by enforcing strong limits against vague or overly abstract claims”).

24. *Nautilus v. Biosig Instruments, Inc.*, 572 U.S. 898, 909 (2014).

uncertainty because the uncertainty only impacts two people—the two people that permitted that level of uncertainty in the first instance. Yet, in patent law, the patent claims need to have a low degree of uncertainty. This is because the uncertainty regarding a patent's boundaries impacts the public at large (for example, in the form of prices on pharmaceutical products) as well as those skilled in the relevant art (for example, in the form of a decision whether to research a particular new drug pathway).

Attention to these parallels and divides in contract law and patent law can enable courts and the patent bar to tailor their approaches to patent claiming in the face of multiple standards that all seek to establish the appropriate threshold of indefiniteness. Further, contract law, and commercial law more generally, has much to offer toward tailoring the level of threshold of certainty to a particular context. In secured transactions law, unlike in contract law, the level of uncertainty must be low for secured financing to function properly. And in patent law, there might need to be a different threshold applied at the patent examination stage (to pre-issuance claims) than at the post-grant stage (to post-issuance claims).

Aiming to increase certainty in the doctrine of claim definiteness to help ensure patents are a net positive on worldwide innovation, this Article demonstrates two points. First, that there is more indefiniteness of indefiniteness since *Nautilus*. Second, that contract law decisions and doctrines can provide guidance and a new perspective to the USPTO, federal judges, and policymakers in determining the level of precision needed in patent claims. In particular, contract law's long history and practice of handling language that is vague, indefinite, or ambiguous can offer instruction on how patent law's indefiniteness standard should be shaped.

This Article proceeds as follows. Part II is a brief primer on the indefiniteness doctrine. It identifies the roots and policy of the doctrine. Part III looks at pre-*Nautilus* law that shows why the Supreme Court decided, at least in part, to hear *Nautilus*. Part IV focuses on the *Nautilus* opinion. Part V explains the post-*Nautilus* state of the indefiniteness doctrine, contending that *Nautilus* only brought more uncertainty to the law of indefiniteness. Part VI then briefly looks at the indefiniteness and ambiguity doctrines in contract law. This Part demonstrates how patent law can look to some of this law to help better understand options moving forward that may foster more certainty in the law of patent indefiniteness.

II. PRIMER: THE DEFINITENESS REQUIREMENT

In the Patent Act of 1790, patent applicants were required to write a “description . . . of the thing or things . . . invented or discovered.”²⁵ This description might include the prior art that the invention or new discovery was building upon or had learned from, as well as the new invention or discovery being claimed by the patent applicant. This combined ap-

25. Patent Act of 1790, ch. 7, § 2, 1 Stat. 109, 110 (1790) (repealed 1793).

proach—describing the old with the new—made it difficult to “distinctly ascertain for which, in particular, the patent is claimed.”²⁶ The Patent Act of 1836 changed this combination, serving as the foundation of our current law.²⁷ The patent was separated into two sections: the specification and the claims. This was done to help ensure that the patent had better defined boundaries, with the claims section requiring that claims must “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention or discovery.”²⁸

Today, much like the Patent Act of 1836 required, the patent specification must fully, clearly, and concisely describe the claimed invention.²⁹ The audience for this written description requirement is a person having ordinary skill in the art (PHOSITA) to which the patent application pertains, or simply, a skilled artisan.³⁰ After reading the patent specification, the PHOSITA should know how to make the invention, use the invention, or both.³¹ This part of the specification is written in relatively plain English and has multiple parts, making it easy to identify the field of the invention; to identify the background of the invention; and to read both a concise summary of the invention and a fuller, more detailed description of the invention. While there will be technical language in this disclosure, many readers, even those with no technical training in any sort of science or engineering, can fumble their way through the first portion of most

26. *Lowell v. Lewis*, 15 F. Cas. 1018, 1020 (C.C.D. Mass. 1817) (No. 8,568).

27. See Patent Act of 1836, ch. 357, 5 Stat. 117 (1836) (current version at 35 U.S.C. §§ 1–390 (2012)).

28. 37 C.F.R. § 1.75(a) (2019).

29. 35 U.S.C. § 112(a) (2012) (“The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, . . . to make and use the same . . .”). Part (f) of 35 U.S.C. § 112 is unique to claims drafted in a means-plus-function format. There, a claim element “may be expressed as a means or step for performing a specified function,” which then limits the claim to the “corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112(f) (2012). This Article does not discuss means-plus-function claims. Importantly, however, means-plus-function claims have their own indefiniteness standard. In short, “a means-plus-function clause is indefinite if a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim.” *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312 (Fed. Cir. 2012) (quoting *AllVoice Computing PLC v. Nuance Commc’ns, Inc.*, 504 F.3d 1236, 1241 (Fed. Cir. 2007)); see also John R. Allison & Lisa Larrimore Ouellette, *How Courts Adjudicate Patent Definiteness and Disclosure*, 65 DUKE L.J. 609, 614–615 (2016) (finding that “patent claims drafted in means-plus-function format were more likely than those drafted in other formats to be held indefinite”).

30. There are several ways that patent practitioners, scholars, and judges abbreviate the statutory phrases “person having ordinary skill in the art,” 35 U.S.C. § 103, and “person skilled in the art,” 35 U.S.C. § 112(a). Two other common variations include “POSITA” and “POSA.” For clarity, I will use “PHOSITA” or “skilled artisan.”

31. Scholars have recently brought attention to problems with this statement that the PHOSITA should know how to make and/or use the invention. For example, Janet Freilich has identified that there is a replicability crisis in patent law: “[T]hat perhaps up to 90% of [patent] experiments [disclosed in patents] do not work.” Janet Freilich, *The Replicability Crisis in Patent Law*, 95 IND. L. J. 431, 434 (2020). As a result, “if most inventions in patents do not work and are not replicable,” then it follows that the goals of patent law, namely, for third parties to get access to and learn from other’s disclosed inventions, will not be met. *Id.* at 435.

patent specifications with at least some understanding of what the invention concerns. This is likely not the case, however, when reading the last part of the patent specification.

Beyond adequately describing the claimed invention, the patent specification must “conclude with one or more claims particularly pointing out and *distinctly* claiming the subject matter which the inventor or a joint inventor regards as the invention.”³² This is often called the “definiteness” requirement, the focus of this Article. The part about “claiming the subject matter”³³ refers to the patent claims, the last part of the patent that is written in a different style than the first part of the specification.

Claims are the heart of the patent, “the portion of the patent document that defines the patentee’s rights.”³⁴ Claims are like the fence on a piece of property, showing distinctly where the metes and bounds are according to a real property deed. The claims of a patent are not meant to add to the prior description of the patent in the specification, and they are certainly not meant to add any square footage to the description of the patent. Rather, claims function to define the scope of the patent very precisely and to support the disclosure made earlier in the specification.

Let’s look at a classic teaching example: the coffee cup holder. The first two sentences of the summary of the invention from a patent covering a cup holder might say: “This invention provides recyclable, corrugated containers and container holders which can be made from existing cellulosic materials, such as paper. The preferred recyclable, corrugated hot beverage container includes a lip and an internal cavity for containing a hot or cold medium.”³⁵ Compare that language to the first claim of the cup holder:

What is claimed is:

A recyclable, insulating beverage container holder, comprising a corrugated tubular member comprising cellulosic material and at least a first opening therein for receiving and retaining a beverage container, said corrugated tubular member comprising fluting means for containing insulating air; said fluting means comprising fluting adhesively attached to a liner with a recyclable adhesive.³⁶

The subject matter of both excerpts is clearly the same invention, yet the style of writing is completely different. The problem is that it is hard to be clear when writing the boundaries of something—a right to exclude others—that is, by its definition, intangible. It is easy to touch, feel, and describe a tangible fence. It is not easy to adequately describe the patent so that a PHOSITA is able to make and use the invention and so that the invention’s precise boundaries are known. The difficulty of drafting claims was noted by an early Supreme Court opinion: “The specification

32. § 112(b) (emphasis added).

33. *Id.*

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

35. U.S. Patent No. 5,205,473 col. 1 l. 44 (filed Mar. 19, 1992).

36. *Id.* at col. 4 l. 62.

and claims of a patent, particularly if the invention be at all complicated, constitute one of the most difficult legal instruments to draw with accuracy.”³⁷

Yet, it is clear that if a patent claim fails the test of indefiniteness at the examination level (at the USPTO), the patent claim is unpatentable in the first instance, or if the patent is already granted, the patent claim will be invalidated. But what does it mean to “distinctly claim[] the subject matter?”³⁸ Indeed, “[m]ost patent claims have some amount of ambiguity in their scope.”³⁹ Language is imprecise and its use varies from person to person. As a result, the question we *should* be asking is “how much [ambiguity or indefiniteness] is too much?”⁴⁰ In other words, recognizing that there will be some level of imprecision in claims, How much imprecision in claiming does patent law tolerate before it is too much imprecision, leading to a result of rejection by the USPTO or invalidity by a federal court?

Much of this level-of-precision question can be answered by looking to the policy behind the definiteness requirement and to the central role that claims play for the scope of the patent. There are two main policy considerations here, and both deal with third parties. As with other areas of law, such as commercial law, anytime third parties are involved the level of certainty needs to be increased.

The first policy consideration here is that the claims need to teach a PHOSITA to “construct and use [the invention] after the expiration of the patent.”⁴¹ The second policy consideration is that claims should “inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.”⁴²

Most basically, if patentees fail to post clear warning signs of what is, and what is not, their property where they want to exclude others from trespassing, the public will not know if they are trespassing or not.⁴³ This policy reaches back to the beginning of the definiteness requirement in the U.S.

In 1822, the Supreme Court explained that the disclosure statute had two purposes: (1) “to make known the manner of constructing the [invention] . . . so as to enable arti[s]ans to make and use it,”⁴⁴ and (2) “to put

37. *Topliff v. Topliff*, 145 U.S. 156, 171 (1892).

38. 37 C.F.R. § 1.75(a) (2019).

39. Dennis Crouch, *Supreme Court: To Be Valid, Patent Claims Must Provide Reasonable Certainty Regarding the Claim Scope*, PATENTLY-O (June 2, 2014), <https://patentlyo.com/patent/2014/06/reasonable-certainty-regarding.html> [<https://perma.cc/YZ46-JJ7U>].

40. *Id.* (emphasis omitted).

41. *Permutit Co. v. Graver Corp.*, 284 U.S. 52, 60 (1931).

42. *Id.*

43. See Karen E. Sandrik, *Reframing Patent Remedies*, 67 U. MIAMI L. REV. 95, 99 (2012) (arguing that patent law should look to the law of trespass in handling strategic holdout behavior impacting patent remedies); see also BESSEN & MEURER, *supra* note 9, at 8 (titled a subsection with the apt statement: “The Notice Function: If You Can’t Tell the Boundaries, It Ain’t Property”).

44. *Evans v. Eaton*, 20 U.S. (7 Wheat.) 356, 433 (1822).

the public in possession of what the party claims as his own invention.”⁴⁵ As to the second purpose, the Court further explained the importance of preventing the inventor from “pretending that his invention is more than what it really is, or different from its ostensible objects.”⁴⁶

This “pretending” concern still exists today. The thought is that if patentees are permitted to “be vague, they will have an incentive to do so, since vague claims will increase the de facto scope of a patent by forcing competitors to expand the ‘safe distance’ they keep from the patentee’s turf (claims).”⁴⁷ A similar tactic exists, and is sometimes even encouraged, in the intentional drafting of open, vague, or ambiguous contracts.⁴⁸ This is another reason why contract law is helpful in providing guidance for the level of precision of language that patent law should demand of its patent applicants when submitting claims.

Because claims, at least in theory, provide this notice to PHOSITAs and the public—informing both what the patent covers and how it is different than what came before it (the prior art)—claims are also central to determining the scope of the patent, which impacts validity. Therefore, emphasis has been placed (rightfully) on the construction of claims. Indeed, the “stakes in trying to improve the predictability of claim construction are large.”⁴⁹ Much scholarship has been devoted to improving the legal process of construing these claims.⁵⁰ Yet, before we determine how to best construe claims, we need to address how clear the claims need to be written in the first instance.

45. *Id.* at 434.

46. *Id.*

47. ROBERT PATRICK MERGES & JOHN FITZGERALD DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS* 303 (7th ed. 2017) (explaining that the requirement of definite claims “seeks to guard against unreasonable advantages to the patentee and disadvantages to others arising from uncertainty as to their rights” (citing *Gen. Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369 (1938))).

48. There is a rich academic literature in contract law regarding whether there are economic benefits of permitting, even encouraging, parties to intentionally draft incomplete and vague contracts. *See, e.g.*, Alan Schwartz & Robert E. Scott, *Contract Theory and the Limits of Contract Law*, 113 *YALE L.J.* 541, 569, 572 (2003) (arguing the goal of contract law should not be getting to the “correct” answer, but rather to teach parties to write contracts in “the court’s language,” thereby permitting the four-corners rule to reduce transaction costs); B. Douglas Bernheim & Michael D. Whinston, *Incomplete Contracts and Strategic Ambiguity*, 88 *AM. ECON. REV.* 902, 903 (1998) (arguing that “if contracts must be somewhat incomplete (due to transaction costs or limits on verifiability) then it is often optimal for parties to write contracts that are even more incomplete”); Gillian K. Hadfield, *Judicial Competence and the Interpretation of Incomplete Contracts*, 23 *J. LEGAL STUD.* 159, 159 (1994) (“In recent years writers in both economics and law have recognized the prevalence and importance of incomplete contracting in the design of markets and organizations.”).

49. Golden, *supra* note 9, at 322.

50. Currently, claims are construed from the perspective of the PHOSITA, although John Golden has persuasively argued that it would improve the predictability of claim construction if claims were construed through the lens of claim drafters. *Id.* at 380. Other scholars have different ideas on how to improve claim construction. *See* Burk & Lemley, *supra* note 1, at 1747 (arguing that patent law should look to central claiming, instead of peripheral claiming, during claim construction).

III. PRE-2014 INDEFINITENESS STANDARD

This Part will start with a discussion of how precise the USPTO wants claims to be written, at least when initially evaluating claims in a patent application. Next, this Part will discuss the predominant standard for issued patents that were challenged for indefiniteness in federal court prior to the 2014 *Nautilus* opinion, thereby setting up the discussion of why the *Nautilus* Court felt that it needed to take yet another patent opinion.⁵¹

A. *EX PARTE MIYAZAKI*: A STRICTER STANDARD

When patent applicants make their way through the examination process at the USPTO, the applicants need to ensure that their respective claims in their applications meet the definiteness requirement. At the examination stage, patent applicants have the ability to amend their claims if the examiner finds any fault with them. Yet, once a patent is granted, the patent enjoys a presumption of validity. Because of the applicants' ability to amend claims, and the patent's presumption of validity once it is granted, the USPTO employs a stricter indefiniteness standard for claims in the examination process than for granted claims that are being challenged in post-issuance patent litigation.

This stricter standard came about in 2008 when the Board of Patent Appeals and Interferences (BPAI) released a rare precedential opinion, *Ex parte Miyazaki*.⁵² The BPAI adopted a new standard of indefiniteness for patent applicants that effectively lowered the threshold of ambiguity, thus requiring patent applicants to define claims with greater specificity.⁵³ This opinion was issued a couple months after John Love, the USPTO's then-Deputy Commissioner for Patent Examination Policy, called for a stricter standard of indefiniteness to help increase the quality of patents. Love had urged examiners that they could reject claim language that had "more than one reasonable interpretation."⁵⁴ Perhaps in response to this call for a stricter standard, the BPAI explained in *Miyazaki*:

[W]e employ a lower threshold of ambiguity when reviewing a pending claim for indefiniteness than those used by post-issuance reviewing courts. In particular, rather than requiring that the claims are insolubly ambiguous, we hold that if a claim is *amenable to two or more plausible claim constructions*, the USPTO is justified in requir-

51. As many patent commentators have noted for ten or so years now, the Supreme Court continues to grant certiorari in an unprecedented number of patent cases. For reasons why this may be the case, see, for example, Robin Feldman, *Coming of Age for the Federal Circuit*, 18 GREEN BAG 2d 27, 27–28 (2014) (arguing the Supreme Court is sending a strong "message about restraint, about carefully constructed logic, and about coming into the fold of judicial decision-making" to the Federal Circuit).

52. No. 2007-3300, 89 U.S.P.Q.2d 1207 (B.P.A.I. Nov. 19, 2008) (precedential).

53. *Id.* at 1211 (holding the use of the phrase "sheet feeding area" was amenable to two or more plausible claim constructions, and, therefore, the claims are indefinite).

54. U.S. Pat. & Trademark Off., Memorandum from John Love on Indefiniteness Rejections Under 35 U.S.C. 112, Second Paragraph at 2 (Sept. 2, 2008), https://www.uspto.gov/sites/default/files/web/offices/pac/dapp/opla/preognotice/section_112_2nd_09_02_2008.pdf [<https://perma.cc/ZX9A-2JUF>].

ing the applicant to more precisely define the metes and bounds of the claimed invention by holding the claim unpatentable under 35 U.S.C. § 112[(b)], as indefinite.⁵⁵

This is a strict standard of claim indefiniteness—a low threshold as it is triggered easily—because it requires that the patent applicant draft claims that can only be interpreted one way. To put this difficult task in context, even the most simple contracts can often succumb to multiple constructions of particular key language. In the infamous *Frigilament Importing Co. v. B.N.S. International Sales Corp.*⁵⁶ opinion, multiple experts were needed to opine on what the parties meant when they used the word “chicken.”⁵⁷

At the time of *Miyazaki*, the Manual of Patent Examining Procedure (MPEP) informed the examiner assigned to the patent application that “the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant.”⁵⁸ If the examiner concludes that the patent claim does not meet this standard, then, under the MPEP, the examiner should issue a rejection “and an analysis as to why the phrase(s) used in the claim is ‘vague and indefinite.’”⁵⁹

Further, when evaluating claims, the USPTO and its examiners use the “broadest reasonable interpretation” standard for pre-issuance patents. This means that “[d]uring patent examination, the pending claims must be ‘given their broadest reasonable interpretation consistent with the specification.’”⁶⁰ Prior to *Miyazaki*, which makes a claim indefinite for having two plausible constructions, a claim was indefinite only if it was not “amenable to construction.”⁶¹

55. *Ex parte Miyazaki*, 89 U.S.P.Q.2d at 1211 (emphasis added).

56. 190 F. Supp. 116 (S.D.N.Y. 1960).

57. *Id.* at 119–20.

58. U.S. PAT. & TRADEMARK OFF., MANUAL OF PATENT EXAMINING PROCEDURE, U.S. DEP’T OF COM. § 2171 (8th ed. rev. 6, Sept. 2007), https://www.uspto.gov/web/offices/pac/mpep/old/E8R7_2100.pdf [<https://perma.cc/8JKS-CA5S>] [hereinafter MPEP] “An application fails to comply with the [definiteness] requirement . . . when the claims do not set out and define the invention with a reasonable degree of precision and particularity. In this regard, the definiteness of the language must be analyzed, not in a vacuum, but always in light of the teachings of the disclosure as it would be interpreted by one of ordinary skill in the art.” *Id.* § 2106.

59. *Id.* § 2173.02.

60. *Id.* § 2111 (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316–17 (Fed. Cir. 2005) (en banc)); see also *Ex parte Breed*, No. 2012-003990, 2014 WL 2536964, at *3 (P.T.A.B. June 4, 2014) (“During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification.” (citing *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004))). This standard is different when evaluating post-grant claims in America Invents Act (AIA) trial proceedings. See *PTAB Issues Claim Construction Final Rule: Final Rule Changing Claim Construction Standard for Interpreting Claims in AIA Trial Proceedings*, U.S. PAT. & TRADEMARK OFF. (Oct. 9, 2018, 9:34 AM), <https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/procedures/ptab-issues-claim-construction#> [<https://perma.cc/LT63-38SB>].

61. See, e.g., *Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). Patent commentators noted that this previous standard was too relaxed, creating uncertainty of the boundaries of patents. See, e.g., Alan Devlin, *Indeterminism and the Property-Patent Equation*, 28 YALE L. & POL’Y REV. 61, 100 (2009) (“Before [*Miyazaki*],

The words—“amenable to construction” and “insolubly ambiguous”—mentioned by the BPAI in the block quote above are discussed in the next section. This was the standard the Federal Circuit employed prior to *Miyazaki* (and continued using until *Nautilus*) for post-issuance patents.

B. THE “INSOLUBLY AMBIGUOUS” STANDARD:
THE LESS STRICT STANDARD

Prior to the Supreme Court’s 2014 *Nautilus* opinion, the Federal Circuit interpreted the relatively sparse statutory language of “distinctly” by creating what is often termed the “insolubly ambiguous” standard. Recognizing that some level of impreciseness in claim drafting is inevitable, the Federal Circuit explained that the inventor does not have to meet such a high threshold as ensuring “that claims be plain on their face in order to avoid condemnation for indefiniteness.”⁶² Instead, the Federal Circuit “asked . . . that the claims be amenable to construction.”⁶³ And by *construction*, the Federal Circuit was referring to claim construction in patent litigation.⁶⁴

Claim construction is an important step in patent litigation, as the definition of these claims draws the boundary lines of the patent holder’s right to exclude.⁶⁵ After the claims are construed, the parties often decide to settle because the parties now understand whether the allegedly infringing technology is within the boundaries of the patent’s scope.

If a claim is amenable to construction, it does not necessarily mean that there is just one way to construe the claim. Indeed, a patent claim might be construed two or more ways, but so long as the at-issue terms “can be given any reasonable meaning,” the patent application has passed the first step of meeting the definiteness requirement.⁶⁶

Further, the Federal Circuit concluded that a claim was indefinite only if the “claim is insolubly ambiguous, and no narrowing construction can properly be adopted.”⁶⁷ Put in slightly different words: “Only when a

claims subject to multiple plausible constructions—shown above to be a major contributor to the indeterminacy of patent rights—were not indefinite. This legal principle facilitated a situation in which potential infringers lack effective means to assess whether they are in fact infringing and, moreover, whether the relevant claims are anticipated under the prior art.”).

62. *Exxon Research*, 265 F.3d at 1375. Indeed, this is something many seemingly simple contracts fail to avoid, as the four-corner rule is often rejected in favor of permitting parol evidence to explain or supplement the agreement.

63. *Id.*

64. Claim construction is the process where a district court, in a special hearing, interprets the meaning and scope of the patent claims. Peter S. Menell et al., *Claim Construction: A Structured Framework*, PATENTLY-O (Sept. 29, 2009), <https://patentlyo.com/patent/2009/09/claim-construction-a-structured-framework-1.html> [https://perma.cc/3HYC-QSAK] (explaining the Federal Circuit’s holding in *Phillips* and setting out a method for claim construction analysis).

65. *See id.*

66. *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005).

67. *Exxon Research*, 265 F.3d at 1375; *see also Datamize, LLC*, 417 F.3d at 1347 (“The definiteness requirement, however, does not compel absolute clarity. Only claims ‘not amenable to construction’ or ‘insolubly ambiguous’ are indefinite.”); *Bancorp Servs.*,

claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite.”⁶⁸ Accordingly, if the term at issue in the claim can be construed—that is, it is amenable to construction (even if both the specification and the perspective of the PHOSITA are needed)—then the claim is not insolubly ambiguous, and therefore, it is not indefinite.

This standard has been widely criticized, both before and after *Nautilus*, for being too low of a bar. Indeed, Robin Feldman has noted that “[t]he Federal Circuit’s rule had ensured that very few patents could ever be overturned for indefiniteness.”⁶⁹ Moreover, Jason Rantanen, citing many exemplary cases and quantitative empirical evidence from data provided by John Allison and Lisa Larrimore Ouellette, explained that “it is difficult to view [the Federal Circuit’s insolubly ambiguous standard] as anything other than a mere threshold.”⁷⁰ Looking at Federal Circuit opinions from ten years before the 2014 *Nautilus* opinion, Rantanen “calculated the rate at which the Federal Circuit found challenged claims indefinite . . . to be 29%.”⁷¹ Truly, it is as if the Federal Circuit “was sending a clear signal: don’t bring definiteness challenges except in the most extreme of cases.”⁷² Reflecting this standard, in their own original empirical study from final validity decisions from early 1989 through 1996, from both district courts and the Federal Circuit, John Allison and Mark Lemley found that only 5.8% of invalidations are based on claim indefiniteness.⁷³

So while historically the definiteness requirement was certainly meant as “more than a linguistic quibble,”⁷⁴ it had become little more than that

L.L.C. v. Hartford Life Ins., 359 F.3d 1367, 1371 (Fed. Cir. 2004) (holding when a claim “is not insolubly ambiguous, it is not invalid for indefiniteness”); Christa J. Laser, *A Definite Claim on Claim Indefiniteness: An Empirical Study of Definiteness Cases of the Past Decade with a Focus on the Federal Circuit and the Insolubly Ambiguous Standard*, 10 CHI-KENT J. INTELL. PROP. 25 (2010) (finding that of the forty-eight indefiniteness cases between the years 1998 and 2008, the Federal Circuit invalidated one-third of the cases).

68. *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366 (Fed. Cir. 2004) (“The requirement to ‘distinctly’ claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principles.”).

69. Feldman, *supra* note 51, at 34.

70. Jason Rantanen, *Teva, Nautilus, and Change Without Change*, 18 STAN. TECH. L. REV. 430, 434 (2015).

71. *Id.* at 435. Rantanen also thoroughly explores John Allison and Lisa Larrimore Ouellette’s own findings of indefiniteness, which covered a broader time period. There, Allison and Ouellette’s data shows a 26% indefiniteness rate. *Id.* Conducting her own study of claim indefiniteness from 1998–2008, Christa Laser calculated a 45% rate of the Federal Circuit holding claims indefinite. *See* Laser, *supra* note 67, at 32.

72. *Id.* at 436.

73. John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 208 (1998).

74. *Rengo Co. v. Molins Mach. Co.*, 657 F.2d 535, 551 (3d Cir. 1981) (“The definiteness requirement is more than a linguistic quibble, however. Its purpose is to demarcate the boundaries of the purported invention, in order to provide notice to others of the limits ‘beyond which experimentation and invention are undertaken at the risk of infringement.’” (quoting *Norton Co. v. Bendix Corp.*, 449 F.2d 553, 555 (2d Cir. 1971))).

by 2014. Accordingly, the grant of certiorari in *Nautilus* was not a surprise.

IV. THE “REASONABLE CERTAINTY” STANDARD

In 2014, in a unanimous opinion written by Justice Ginsburg, the Supreme Court overturned the Federal Circuit’s “amenable to construction” and “insolubly ambiguous” standard in *Nautilus, Inc. v. Biosig Instruments, Inc.*⁷⁵ The Court explained that the Federal Circuit’s standard failed to provide sufficient guidance for district courts and the patent bar, and the expressions were not, in themselves, precise enough.⁷⁶ Simply, “such terminology . . . [left] courts and the patent bar at sea without a reliable compass.”⁷⁷ Moreover, the Federal Circuit standard was “breed[ing] lower court confusion.”⁷⁸

As a result, and with the aim of providing better guidance to courts and the patent bar, the *Nautilus* Court held that “a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.”⁷⁹ This new standard is often referred to as the *Nautilus* standard or the “reasonable certainty” standard, as opposed to the previous amenable to construction or insolubly ambiguous standard.⁸⁰

A. “SPACED RELATIONSHIP”

The technology in *Nautilus* provides a good opportunity to delve deeper into the indefiniteness requirement. It is relatable technology and not too technical. The patent in *Nautilus* covers a heart-rate monitor that is designed for use during exercise.⁸¹

The particular claims at issue in the opinion were directed to “a heart-rate monitor contained in a hollow cylindrical bar” that is grasped by a user during exercise (e.g., on a treadmill or stationary bike).⁸² When grasped, the “user contact[s] two electrodes, one ‘live’ and one ‘common.’”⁸³ The different polarities filter out electromyogram signals generated by the exerciser’s skeletal muscles, the signals that often mask the heartbeat.⁸⁴ The particular housing mechanism of these electrodes further helps to “eliminate the effects of muscle artifact which is brought about when a user, in exercising, moves his arms or squeezes the monitor

75. 572 U.S. 898, 901 (2014).

76. *See id.* at 911–12.

77. *Id.* at 912. The Court did note, however, that the test applied by the Federal Circuit “may come closer to tracking the statutory prescription” than the words suggest. *See id.* at 911.

78. *Id.* at 911.

79. *Id.* at 901.

80. *See* discussion *supra* Parts III, IV; discussion *infra* Part V.

81. U.S. Patent No. 5,337,753 (filed June 9, 1992).

82. *Nautilus*, 572 U.S. at 903–04.

83. *Id.* at 904.

84. *Id.* at 903.

with his fingers.”⁸⁵ As a result, the invention covered in this patent “provide[s] improved heart rate monitors for use in association with exercising apparatus and/or exercising procedures.”⁸⁶

Central to the litigation was Claim 1. It contained a limitation describing the electrodes as being “mounted . . . in *spaced relationship* with each other.”⁸⁷ This “spaced relationship” language was the subject of Nautilus’ claim that Biosig’s patent did not meet the definiteness requirement⁸⁸: “According to Biosig, [the] ‘spaced relationship’ referred to the distance between the live electrode and the common electrode in each electrode pair.”⁸⁹ Yet, Nautilus argued that the “‘spaced relationship’ must be a distance ‘greater than the width of each electrode,’”⁹⁰ or else the claims would be open to multiple interpretations that would reflect very different understandings of the scope of the patent.

During claim construction, the district court defined the term “spaced relationship” to mean that “‘there is a defined relationship between the live electrode and the common electrode on one side of the cylindrical bar and the same or a different defined relationship between the live electrode and the common electrode on the other side of the cylindrical bar.’”⁹¹ The district court did not make any reference to the width of the electrodes, yet Biosig’s submissions to the USPTO during a reexamination of the patent seemed to state that there needed to be equal distance between the electrodes, stating that “the [Biosig] patent sufficiently informed a person skilled in the art how to configure the detecting electrodes so as ‘to produce equal EMG [signals] from the left and right hands.’”⁹²

As a result, the spaced relationship needed to be at least greater than the width of each electrode. The district court sided with Nautilus, finding the “spaced relationship” term “‘did not tell [the court] or anyone what precisely the space should be,’ or even supply ‘any parameters’ for determining the appropriate spacing.”⁹³

The Federal Circuit reversed under its standard that “[a] claim is indefinite . . . ‘only when it is “not amenable to construction” or “insolubly ambiguous.”’⁹⁴ The Federal Circuit conducted its analysis by looking to the intrinsic evidence—evidence contained inside the patent itself—and the process of obtaining that patent, including the claim language, specification, and prosecution history.⁹⁵ Ultimately, the Federal Circuit con-

85. ‘753 Patent col. 1 l. 20.

86. *Id.* col. 1 l. 28.

87. *Nautilus*, 572 U.S. at 904 (emphasis added).

88. *See id.* at 906.

89. *Id.*

90. *Id.*

91. *Id.*

92. *Id.* at 905.

93. *Id.* at 906.

94. *Id.* (quoting the Federal Circuit’s opinion, 715 F.3d 891, 898 (Fed. Cir. 2013) (quoting *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005))).

95. *Id.*

cluded “that a skilled artisan would know that she could attain the indicated functions of equalizing and removing the EMG signals by adjusting design variables, including spacing.”⁹⁶

B. *NAUTILUS, INC. v. BIOSIG INSTRUMENTS, INC.*

The Supreme Court agreed with several parts of the Federal Circuit’s analysis. First, the Court agreed that definiteness is properly evaluated from the perspective of the PHOSITA.⁹⁷ Second, the Court agreed that patent claims are properly read in light of the intrinsic evidence that a patent offers: the insights into the claim language offered by the specification and prosecution history.⁹⁸ And third, the Court agreed that definiteness is properly measured at the time of the patent filing—and what a PHOSITA would understand at that moment.⁹⁹

The Court then noted that the parties disagreed with respect to how much imprecision patent law permits. Biosig, along with the Solicitor General, argued that a patent should only need to provide “reasonable notice of the scope of the claimed invention,”¹⁰⁰ while Nautilus argued that a patent should be “invalid when a claim is ‘ambiguous, such that readers could reasonably interpret the claim’s scope differently.’”¹⁰¹

Agreeing with Nautilus—although on remand, the Federal Circuit affirmed its finding that the term “spaced relationship” was not indefinite¹⁰²—the Supreme Court expressed that it was aware there was a “‘delicate balance’”¹⁰³ and that there are inherent limitations of the language that is used to express the claimed invention. This means that there will necessarily be “[s]ome modicum of uncertainty.”¹⁰⁴ Yet, at the same time, there should not be so much question as to what the invention is that there is “[a] zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims.”¹⁰⁵ This is why the Court concluded:

Cognizant of the competing concerns, we read § 112[(b)] to require that a patent’s claims, viewed in the light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty. The definiteness requirement, so understood, mandates clarity, while recognizing that abso-

96. *Id.* at 907.

97. *Id.* at 908.

98. *Id.*

99. *Id.*

100. *Id.*

101. *Id.*

102. *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1376 (Fed. Cir. 2015).

103. *Nautilus*, 572 U.S. at 909 (quoting *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002)).

104. *Id.*

105. *Id.* at 909–10 (citing *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942)).

lute precision is unattainable.¹⁰⁶

V. POST-2014 INDEFINITENESS STANDARD

It has now been over five years since *Nautilus*, which begs the question: Did the *Nautilus* reasonable certainty test bring any more grit or any teeth to the indefiniteness standard? Moreover, do the courts and the patent bar have the guidance that Justice Ginsburg and the Court sought to provide when overhauling the Federal Circuit's insolubly ambiguous standard?

The answers, as the following sections will illustrate, are no and no: No, the standard does not seem to have changed despite the *Nautilus* opinion. And no, there is no more guidance in this area of law and no more certainty. Indeed, there is more uncertainty in the doctrine of indefiniteness now than prior to *Nautilus*.

A. GRANTED PATENTS IN FEDERAL LITIGATION

On remand, the Federal Circuit came to the same conclusion regarding “spaced relationship” under the reasonable certainty standard as it had under the insolubly ambiguous standard—that the term “spaced relationship” is not indefinite.¹⁰⁷ Beyond the affirmation of its prior holding, the Federal Circuit opinion also provides a first look at the application of the new definiteness standard.

The parties, *Nautilus* and *Biosig*, differed on whether the new reasonable certainty standard was “a new, stricter standard or whether, in rejecting the phrases ‘insolubly ambiguous’ and ‘amenable to construction,’ the Court was primarily clarifying that a patent’s claims must inform those skilled in the art with ‘reasonable certainty’ of what is claimed.”¹⁰⁸ While the Federal Circuit declined to directly answer the parties’ question, it did provide a glimpse into its feelings on the new standard, echoing a metaphor, seemingly with a bit of sarcasm, that the Supreme Court used at the conclusion of its opinion. Playing off of the Court’s nautical metaphor of a “reliable compass,” the Federal Circuit responded: “[t]he Court has . . . modified the standard by which lower courts examine allegedly ambiguous claims; we may now steer by the bright star of ‘reasonable certainty,’ rather than the unreliable compass of ‘insoluble ambiguity.’”¹⁰⁹

The Federal Circuit followed with the statement that “[r]easonableness

106. *Id.* at 910 (“[T]he certainty which the law requires in patents is not greater than is reasonable, having regard to their subject matter.” (quoting *Minerals Separation, Ltd. v. Hyde*, 242 U.S. 261, 270 (1916))).

107. *Biosig*, 783 F.3d at 1376 (“On remand, we maintain our reversal of the district court’s determination that *Biosig*’s patent claims are indefinite.”).

108. *Id.* at 1379. This very question has been a point of discussion among patent scholars and the patent community. See, e.g., Jason Rantanen, *Biosig v. Nautilus: Indefiniteness on Remand*, PATENTLY-O (May 6, 2015), <https://patentlyo.com/patent/2015/05/nautilus-indefiniteness-remand.html> [<https://perma.cc/J44A-YDTJ>].

109. *Biosig*, 783 F.3d at 1379.

is the core of much of the common law,”¹¹⁰ perhaps making this at least a standard that lower courts are more comfortable applying when compared to the insolubly ambiguous standard.¹¹¹ This seems to be plausible as the Federal Circuit reported that “[i]n the wake of [*Nautilus*], judges have had no problem operating under the reasonable certainty standard.”¹¹²

And yes, right after the opinion and for a year or so, the Federal Circuit and lower courts directly cited and sometimes discussed the new reasonable certainty standard.¹¹³ In fact, it seemed at first that the Federal Circuit did believe that *Nautilus* changed the law of indefiniteness, for it stated that “[t]his was indeed the very purpose of the *Nautilus* decision.”¹¹⁴

Moreover, the Federal Circuit found phrases to be indefinite in two separate instances: “molecular weight” in *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*¹¹⁵ and “unobtrusive manner that does not distract the user” in *Interval Licensing LLC v. AOL, Inc.*¹¹⁶ Yet even in these opinions, the Federal Circuit looked to its own pre-*Nautilus* precedent in multiple instances.¹¹⁷ And in the case of *Interval Licensing LLC*, the Federal Circuit ultimately conducted its analysis, which led to the indefinite finding, under *Datamize, LLC v. Plumtree Software, Inc.*¹¹⁸ As Jason Rantanen has pointed out, *Datamize* was “the very case to which the original standard of ‘insolubly ambiguous’ is often attributed.”¹¹⁹

110. *Id.* The Federal Circuit followed this statement by identifying several areas of common law in which a standard of reasonableness is used, including the reasonable person foreseeability standard in tort law. *Id.* (citing *Palsgraf v. Long Island R.R. Co.*, 162 N.E. 99 (1928) and comparing it with *Jay v. Sec’y of Dep’t of Health & Human Servs.*, 998 F.2d 979, 984 (Fed. Cir. 1993) (an opinion “discussing whether a reasonable person could conclude a certain vaccine caused the child’s death”)).

111. This may be another touch of sarcasm; however, it is because the first of two cases cited is the infamous *Palsgraf* opinion, the crux of much frustration and uncertainty in first-year tort law classes.

112. *Biosig*, 783 F.3d at 1381.

113. *See, e.g.*, *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1340–41 (Fed. Cir. 2015) (quoting the new reasonable certainty standard from *Nautilus* at the beginning of its indefiniteness analysis); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1260 (Fed. Cir. 2014) (same); *Freeny v. Apple Inc.*, No. 2:13–CV–00361–WCB, 2014 WL 4294505, at *5 (E.D. Tex. Aug. 28, 2014) (quoting *Nautilus* but also explaining the new “standard does not render all of the prior Federal Circuit and district court cases inapplicable”).

114. *Dow Chem. Co. v. Nova Chems. Corp.*, 803 F.3d 620, 630, 631 (Fed. Cir. 2015) (holding that its “original decision [applying the insolubly ambiguous standard] would have been different under the new *Nautilus* standard.”).

115. 789 F.3d at 1344–45 (concluding after looking at the claim language, specification, and prosecution history, that a PHOSITA “would still not be reasonably certain in light of the entire record as to which type of average [weight] was intended”).

116. 766 F.3d 1364, 1374 (Fed. Cir. 2014).

117. *See Rantanen, supra* note 70, at 440 (explaining that even as the “Federal Circuit described the contours of the *Nautilus*” opinion in *Interval Licensing*, it nevertheless “harkened back to its own precedent”).

118. 417 F.3d 1342 (Fed. Cir. 2005).

119. *See Rantanen, supra* note 70, at 440.

Fast forward just a year or so from *Nautilus*, and certainly when you look at the most recent Federal Circuit opinions, and this movement back to pre-*Nautilus* reasoning (and the absence of even the recitation of *Nautilus* language) is even more apparent.¹²⁰ When *Nautilus* is cited, it is not always done so with accuracy or precision. For example, in *HZNP Medicines LLC v. Actavis Laboratories UT, Inc.*,¹²¹ a 2019 opinion, the Federal Circuit explained that the “*Nautilus* definiteness standard requires that the basic and novel properties be known and definite.”¹²² Then, instead of going further into the reasonable certainty standard, or even parroting the language of *Nautilus*, the Federal Circuit cited to one of its own opinions from 2015, explaining that “[a] claim is indefinite if its language might mean several different things and no informed and confident choice is available among the contending definitions.”¹²³ The *HZNP* opinion then simply state that it “appl[ie]d the *Nautilus* definiteness standard to the basic and novel properties of the formulation patents.”¹²⁴

Ultimately, and just as Rantanen concludes in his article on *Teva* and *Nautilus*, “[t]he Federal Circuit continues to routinely reject indefiniteness challenges . . . [while] its formal doctrinal analyses look virtually identical to those before the Supreme Court intervened.”¹²⁵ Moreover, he explains,

In applying the *Nautilus* standard, the Federal Circuit is still treating claims as reasonably certain as long as the person construing the claim can arrive at a reasonable construction. And, although the Federal Circuit has not come out and said it (nor is it likely to), the only claims for which one cannot arrive at a reasonable construction are those that are not amenable to construction or are insolubly ambiguous.¹²⁶

Unlike the Federal Circuit, which has already moved away from strictly applying *Nautilus* in a somewhat uniform manner—in a direction that is not noticeably different from the previous insolubly ambiguous standard in application—the district courts are more chaotic. Some district courts are sticking close to the language of *Nautilus* and doing their best to work through the new standard,¹²⁷ while many others are still directly citing to

120. *See id.* at 440–41 (“The court’s other post-*Nautilus* decisions follow the same pattern: a boilerplate recitation of *Nautilus* followed by actual analysis under its own precedent.”).

121. 940 F.3d 680 (Fed. Cir. 2019).

122. *Id.* at 696.

123. *Id.* at 698 (quoting *Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1371 (Fed. Cir. 2015)). This language appeared shortly after *Nautilus* in *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, (Fed. Cir. 2014) (holding claims are indefinite when they “might mean several different things and no informed and confident choice is available among the contending definitions”).

124. *HZNP*, 940 F.3d at 688.

125. Rantanen, *supra* note 70, at 430.

126. *Id.* at 447.

127. *See, e.g.*, *Velocity Patent LLC v. Mercedes-Benz USA, LLC*, Nos. 13-cv-8413, 13-cv-8419, 13-cv-8418, 2016 WL 5234110, at *5 (N.D. Ill. Sept. 21, 2016) (finding the term

and applying the insolubly ambiguous¹²⁸ and amenable to construction¹²⁹ standards.

Other district courts are seemingly processing aloud the extent of the change the reasonable certainty test brings to the law of indefiniteness. The District of Massachusetts is one district court that has voiced its doubts that the *Nautilus* standard is much different than the “insolubly ambiguous” standard, stating that “the relevant inquiry stays the same.”¹³⁰ And the Central District of California finds itself confused, stating that “[i]t is unclear how much of the Federal Circuit’s indefiniteness jurisprudence survives *Nautilus*.”¹³¹ The California district court continued processing the old and the new standards by finding that “*Nautilus* suggests that the problem with the Federal Circuit’s test was simply that the words ‘not amenable to construction’ and ‘insolubly ambiguous’ were ‘more amorphous than the statutory definiteness requirement allows.’”¹³² In this way, if it were the particular words, not the impact of those words, “*Nautilus* may have amounted to little more than an admonition not to use the words ‘not amenable to construction’ and ‘insolubly ambiguous.’”¹³³

This chaotic march through various options after studying the *Nautilus* opinion and Federal Circuit precedent will continue to play out and result in a fractured approach across the United States. Until more concrete

“insufficient engine speed” not indefinite and explaining that “some modicum of uncertainty . . . is the ‘price of ensuring the appropriate incentives for innovation’”). Other district courts are looking not only to the *Nautilus* standard but also to guidance in older Federal Circuit opinions as *Nautilus* did “not render all of the prior Federal Circuit and district court cases inapplicable.” *Freeny v. Apple Inc.*, No. 2:13-CV-00361-WCB, 2014 WL 4294505, at *5 (E.D. Tex. Aug. 28, 2014). For example, in *Sensor Electronic Technology, Inc. v. Bolb, Inc.*, No. 18-CV-05194-LHK, 2019 WL 4645338, at *3 (N.D. Cal. Sept. 24, 2019), the Northern District of California cited to much of the *Nautilus* language but then used a 2014 Federal Circuit opinion to guide it through its analysis. *See also* *AptusTech LLC v. Trimfoot Co.*, No. 4:19-CV-133, 2020 WL 772456, at *3 (E.D. Tex. Feb. 18, 2020) (heavily citing *Nautilus* language in its discussion of the indefiniteness standard); *Uniloc 2017 LLC v. Google LLC*, No. 2:18-CV-00492-JRG-RSP, 2020 WL 569858, at *3 (E.D. Tex. Feb. 5, 2020) (same); *Kaneka Corp. v. Zhejiang Med. Co.*, No. CV 11-02389 SJO (SHSx), 2018 WL 2718036, at *5-6 (C.D. Cal. Apr. 5, 2018) (same).

128. *See, e.g.*, *Am. River Nutrition, LLC v. Beijing Gingko Grp. Biological Tech. Co.*, 419 F. Supp. 3d 1226, 1239 (C.D. Cal. 2020) (citing the reasonable certainty standard from *Nautilus* but then immediately following that with citation and application of the “insolubly ambiguous” language and Federal Circuit precedent); *RMH Tech LLC v. PMC Indus., Inc.*, No. 3:18-cv-00543 (VAB), 2018 WL 3733954, at *16 (D. Conn. Aug. 6, 2018) (“A court will find a claim indefinite ‘only where a person of ordinary skill in the art could not determine the bounds of the claim, i.e., the claims are insolubly ambiguous.’”); *Not Dead Yet Mfg. Inc. v. Pride Sols., LLC*, 265 F. Supp. 3d 811, 832 (N.D. Ill. 2017) (“The court agrees that its prior ruling is at odds with Defendants’ assertion of indefiniteness. ‘[O]nly claims *not amenable to construction* or insolubly ambiguous are indefinite.’”).

129. *See, e.g.*, *Crane Sec. Techs., Inc. v. Rolling Optics AB*, 166 F. Supp. 3d 76, 90-92 (D. Mass. 2016) (citing to *Nautilus* language at the front half of the opinion but ultimately holding that the term “optical effect” was definite because it was “amenable to construction”).

130. *Boston Sci. Corp. v. Cook Inc.*, 187 F. Supp. 3d 249, 271 (D. Mass. 2016).

131. *Deckers Outdoor Corp. v. Romeo & Juliette, Inc.*, No. 2:15-cv-028120-ODE(CWx), 2016 WL 7017219, at *3 (C.D. Cal. Dec. 1, 2016).

132. *Id.*

133. *Id.*

guidance is provided, the district courts must do the best they can with very few meaningful words that, indeed, are imprecise themselves.

B. PRE-ISSUANCE PATENT CLAIMS & POST-ISSUANCE PATENTS IN
AIA PROCEEDINGS

After *Nautilus*, some patent commentators thought there may be just one standard of indefiniteness applied, regardless of whether the claims were under examination at the USPTO, in post-issuance patent litigation, or in post-grant procedures. One such example is Lisa Larrimore Ouellette and Jonathan Masur, who co-authored a short article after the release of the *Nautilus* opinion, explaining that “it seems that *Miyazaki*’s articulation of the legal standard for indefiniteness is no longer good law (unless, of course, the Federal Circuit adopts this as the unitary test).”¹³⁴

Just two days after the *Nautilus* opinion was decided, the PTAB issued its own opinion regarding the applicable indefiniteness standard in pre-issuance patents in *Ex parte Breed*.¹³⁵ While the PTAB quoted *Nautilus* in *Ex parte Breed*, the PTAB relied on the indefiniteness standard in *Miyazaki*. The PTAB explained: “a claim is properly rejected as indefinite if it is ‘amenable to two or more plausible claim constructions.’”¹³⁶ Accordingly, the PTAB sustained the examiner’s rejection of Claim 1 because the phrase “can be” was “susceptible to more than one plausible construction.”¹³⁷ Overall, from this 2014 board opinion, it is clear the USPTO wanted to continue employing the strict standard of indefiniteness in pre-issuance patents instead of adopting the reasonable certainty standard articulated by the Supreme Court.

Just prior to the issuance of this PTAB opinion, but after certiorari had been granted in *Nautilus*, the Federal Circuit made its own determination regarding whether there should be a unitary standard in pre-issuance versus post-issuance patents.¹³⁸ In *In re Packard*, the Federal Circuit determined that the indefiniteness standard the USPTO employed *should* apply to claims under examination (pre-issuance claims).¹³⁹ While the patent applicant wanted the Federal Circuit’s insolubly ambiguous standard applied instead of the MPEP standard that the examiner in fact applied—which states that “[a] claim is indefinite when it contains words or phrases whose meaning is unclear”¹⁴⁰—the Federal Circuit held the

134. Lisa Larrimore Ouellette & Jonathan Masur, *How will Nautilus Affect Indefiniteness at the PTO?*, PATENTLY-O (June 5, 2014), <https://patentlyo.com/patent/2014/06/nautilus-affect-indefiniteness.html> [<https://perma.cc/R6Q6-7JGJ>].

135. No. 2012-003990, 2014 WL 2536964 (P.T.A.B. June 4, 2014).

136. *Id.*

137. *Id.* at *3 (finding Claim 1 indefinite under the *Miyazaki* standard).

138. See *In re Packard*, 751 F.3d 1307, 1309 (Fed. Cir. 2014) (per curiam).

139. *Id.* at 1312.

140. See MPEP, *supra* note 58, § 2173.05(e); see also *In re Packard*, 751 F.3d at 1309 (explaining the patent applicant “insists that the Board misapplied the standard of indefiniteness by finding his claims indefinite on grounds that they ‘contain[] words or phrases whose meaning is unclear’” instead of applying the “‘insolubly ambiguous’ standard to his claims”).

following:

[W]hen the USPTO has initially issued a well-grounded rejection that identifies ways in which language in a claim is ambiguous, vague, incoherent, opaque, or otherwise unclear in describing and defining the claimed invention, and thereafter the applicant fails to provide a satisfactory response, the USPTO can properly reject the claim as failing to meet the statutory requirements of § 112(b).¹⁴¹

The Federal Circuit further explained that the Supreme Court in *Nautilus* was considering the post-issuance standard for indefiniteness, but pre-issuance claim rejections by the USPTO “arise in a different posture.”¹⁴² The concurrence further explained that the PTAB was justified in applying a “lower threshold for ambiguity,”¹⁴³ meaning it may apply a test that makes it easier to trigger the indefiniteness standard. Indeed, at this juncture, the patent applicant is able to amend claims and, for that reason and for public notice in general, the USPTO needs to be most concerned with clarity in pending claims.¹⁴⁴

The question after *In re Packard* was whether this stricter standard for pre-issuance patent claims would stand the test of time after *Nautilus*, withstanding the pressure to have one unitary standard. In answering this question, the PTAB issued another precedential decision, and as with *Miyazaki*, it is rare to have a precedential decision come down from a board (now the PTAB instead of the BPAI).

Ex parte McAward confirmed that during pre-issuance examination, the PTAB will continue to use “the approach for assessing indefiniteness approved by the Federal Circuit”¹⁴⁵ in *In re Packard*. The standard now tacks the MPEP language onto the vagueness language from *In re Packard*: “A claim is indefinite when it contains words or phrases whose meaning is unclear,”¹⁴⁶ and “claims are required to be cast in clear—as opposed to ambiguous, vague, indefinite—terms.”¹⁴⁷ This low threshold—low as in it does not take much to trigger an indefiniteness rejection from an examiner—is important, the PTAB found, because § 112 requires “that claims be written in clear and unambiguous terms.”¹⁴⁸ These terms “‘necessarily invoke[] some standard of reasonable precision in the

141. *In re Packard*, 751 F.3d at 1311.

142. *Id.* at 1312.

143. *Id.* at 1323 (Plager, J., concurring).

144. *See id.* at 1315, 1323; *see also* MPEP § 2173.02(1) (“The Office does not interpret claims when examining patent applicants in the same manner as the courts.”).

145. *Ex Parte McAward*, No. 2015-00646, 2017 WL 3669566, at *5 (P.T.A.B. Aug. 25, 2017) (precedential). This PTAB opinion, like other board decisions and Federal Circuit opinions, still fails to “bring us any closer to addressing the perceived explanation of what is considered ‘reasonable’ regarding ‘broadest reasonable interpretation,’ ‘reasonable degree of certainty and particularity,’ ‘reasonable certainty’ and ‘reasonable precision.’” David M. Longo, *Ex parte McAward—Testing Claims for Indefiniteness*, PATENTLY-O (Oct. 24, 2017), <https://patentlyo.com/patent/2017/10/mcaward-testing-indefiniteness.html> [<https://perma.cc/8N5U-L78W>].

146. MPEP, *supra* note 58, § 2173.05(e) (citing *In re Packard*, 751 F.3d at 1314).

147. *In re Packard*, 751 F.3d at 1313.

148. *Ex parte McAward*, 2017 WL 3669566, at *6.

use of language in the context of the circumstances.’”¹⁴⁹

When applying this standard to the claim language at issue—which stated that the water detector was “configured to be reliably installed by an untrained installer or a homeowner and to not require the services of a plumber or electrician to perform installation, thereby permitting widespread and cost effective adoption”—the PTAB concluded this claim language was “unusual.”¹⁵⁰ Why? Because the claim did not define the structure or function of the water detector. Instead, the claim “attempt[ed] to further define the water detector’s structure by the skill level required to install the water detector.”¹⁵¹ When analyzing the meaning of this claim language, the PTAB determined that the “language fail[ed] to provide adequate clarity to the required structure because the skill level of ‘an untrained installer or a homeowner’ is ambiguous and vague, and thus, the meaning of a structure configured to be ‘reliably installed’ by such an installer is unclear.”¹⁵²

When making this determination, the PTAB echoed previous reasons why this stricter standard of definiteness is justified in the pre-issuance context.¹⁵³ Mainly, the applicant here had the opportunity to take the examiner’s feedback and amend the claims, unlike with post-issuance claims.¹⁵⁴

That said, the PTAB was careful to steer clear of holding that this stricter standard applies or should apply to post-issuance America Invents Act (AIA) proceedings.¹⁵⁵ Post-issuance AIA proceedings include post-grant review (PGR), *inter partes* review (IPR), and covered business method review (CBM). In the U.S., grounds for challenging a post-grant patent at the PTAB include subject-matter eligibility, novelty, nonobviousness, and the written description.¹⁵⁶ The written description of a patent is where invalidity rests, falling under § 112(b), so in post-grant proceedings the question of which standard to use for indefiniteness applies. As noted above, board opinions commonly apply the stricter *Miyazaki/Packard* standard,¹⁵⁷ yet at this point, there is no precedential

149. *Id.* (quoting *In re Packard*, 751 F.3d at 1313).

150. *Id.*

151. *Id.*

152. *Id.*

153. *Id.* at *4 (“The lower threshold makes good sense during patent examination because the patent record is in development and not fixed, the Office construes claims broadly during that period, and an applicant may freely amend claims.”).

154. It is interesting to note here that the applicant had added the at-issue recitation (along with others) in an amendment that was added in an attempt to overcome two separate anticipation rejections and one obviousness rejection. The original language included the requirement that the “plumber” be a “licensed professional plumber” and that the “electrician” be a “licensed electrician.” In response to these additions, the examiner rejected the limitation as unclear and indefinite because the language failed to provide any structure to the apparatus or system that would enable it to be “configured” to function as described in the claims. *See id.* at *2.

155. *Id.* at *5 n.4 (“We do not address, in this decision, the approach to indefiniteness that the Office follows in post-grant trial proceedings under the America Invents Act.”).

156. *See* 35 U.S.C. § 321(b) (2012).

157. *See supra* notes 145–47 and accompanying text.

PTAB decision extending the reasoning of *Ex parte McAward* to post-issuance proceedings. Accordingly, uncertainty remains with respect to the relevance and application of *Nautilus* in the context of post-issuance proceedings.

Even more uncertainty exists right now within IPR proceedings. In IPR proceedings, available grounds are limited to anticipation and obviousness.¹⁵⁸ Yet claim construction is a prerequisite to deciding the issues of anticipation and obviousness. And with indefiniteness intertwined with determining the scope of a patent in claim construction, it is unclear what a board should do when faced with an indefinite term in IPR. Board opinions have determined that a claim is indefinite, and yet they have declined to cancel it as such. In one such case, the post-*Nautilus* Board used the amenable to construction standard, and stated that when “claims are not amenable to construction, [the Board is] unable to conclude that there is a reasonable likelihood that [the] Petitioner would prevail” in challenging such claims.¹⁵⁹ This is consistent with the stricter pre-issuance standard that the PTAB uses when assessing whether claims in the first instance are definite or not.

In February 2020, the Federal Circuit sought to provide guidance on what the PTAB is supposed to do when it finds that a claim is indefinite—Should it refuse to cancel the patent or cancel it despite not really having the authority to do so? In *Samsung Electronics America, Inc. v. Prisua Engineering Corp.*, the Federal Circuit held that in IPR proceedings, the PTAB should no longer invalidate patent claims as indefinite.¹⁶⁰ One immediate concern of practitioners is that the PTAB, in response, “may start denying more petitions if they want to avoid issues of indefiniteness.”¹⁶¹ Of course, one way to decrease the level of uncertainty in IPRs is to permit the PTAB to invalidate patents as indefinite, just like the PTAB can with post-grant review.¹⁶²

In conclusion, the level of uncertainty is high when we look at the resulting taxonomy of the indefiniteness doctrine: pre-issuance patents and

158. 35 U.S.C. § 311(b).

159. *Facebook, Inc. v. TLI Commc'ns LLC*, No. IPR2014-00556, 2014 WL 4644360, at *8 (P.T.A.B. Sept. 15, 2014).

160. *Samsung Elecs. Am., Inc. v. Prisua Eng'g Corp.*, 948 F.3d 1342, 1350 (Fed. Cir. 2020) (“We reject Samsung’s contention that the IPR statute authorizes the Board to cancel challenged claims for indefiniteness. In *Cuozzo Speed Techs., LLC v. Lee*[], 136 S. Ct. 2131, 2141–42 (2016)], the Supreme Court said the Patent Office would be acting ‘outside its statutory limits’ by ‘canceling a patent claim for ‘indefiniteness under § 112’ in inter partes review.’”).

161. Daniel C. Tucker, *5 Takeaways from the Ban on IPR Indefiniteness Rulings*, LAW360 (Feb. 12, 2020), <https://www.finnegan.com/en/firm/news/5-takeaways-from-the-ban-on-ipr-indefiniteness-rulings.html> [<https://perma.cc/22DN-UBGS>].

162. *See id.* (“One way to address the issue would be for Congress to change the statute to allow the PTAB to invalidate patents as indefinite in IPRs, much like they can for post-grant reviews (PGRs) and covered business method reviews (CBMs). [The author] said, ‘It’s not expanding their task at hand because the PTAB is already determining whether the claims are indefinite as part of the prior art invalidity analysis. It’s expanding their jurisdiction, but it’s not expanding what they’re already determining. It’s just giving them the authority to act on that determination.’”).

post-issuance AIA proceedings apply a strict standard where only one interpretation of the claim is permitted; post-issuance patents in federal litigation either have an amenable to construction, insolubly ambiguous, or reasonable certainty standard applied, with the difference between the three standards quite unclear.

VI. LOOKING TO CONTRACT LAW TO RETHINK PATENT LAW'S INDEFINITENESS STANDARD

This Article argues that there is another body of law that may provide guidance to the patent community: contract law. Indeed, likely many attorneys and law students upon hearing the words “indefiniteness” or “ambiguity,” may not first think of the patent doctrine of claim indefiniteness discussed above. Rather, they may think back to their respective first-year contracts course and the case involving the interpretation of the word “chicken,”¹⁶³ or the case about a promise to give “a fair share of profits.”¹⁶⁴ This Part will revisit those first-year contract law cases, ones involving promises that are either too vague or too indefinite to enforce or ones involving words that must go through an interpretative analysis due to some type of ambiguity.

The comparison and contrast of the standards in patent law with the standards used in contract law for indefinite contracts and contracts involving ambiguous language can help guide patent law's rethinking of its own indefiniteness standard for all forms of patent adjudication. Important to note here, however, is that while this Article argues that this comparison and contrast is a valuable one, this Article does not argue that this is a perfect analogy, nor does it argue that patent law *should* align itself with contract law. Rather, it is the similarities and differences between the two bodies of law that are the most theoretically rich in helping to rethink how patent law should decide what level of claim definiteness and resulting certainty is needed at various stages of patent claim assessment: pre-issuance, post-issuance in federal courts, and post-issuance AIA proceedings in front of the PTAB.

A. INDEFINITE CONTRACTS

Just like precision of language is important to patent claims, precision of language is important in contract law. Because “[a]ll contracts are incomplete,”¹⁶⁵ the optimal level of certainty needed in contract law depends, at least in part, on the aims of contract law. For purposes of this Article, this Section starts with the premise that a central aim of contract

163. See *Frigalimint Imp. Co. v. B.N.S. Int'l Sales Corp.*, 190 F. Supp. 116 (S.D.N.Y. 1960).

164. See *Varney v. Ditmars*, 111 N.E. 822, 823 (N.Y. 1916). Another case that comes to mind is *Sutlif v. Seidenburg*, 64 P. 131, 131 (Cal. 1901) (per curiam), where the promise at issue was to assist “to make a success” of a business.

165. See Robert E. Scott, *A Theory of Self-Enforcing Indefinite Agreements*, 103 COLUM. L. REV. 1641, 1641 (2003).

law is to respect the autonomy of the contracting parties—that is, to enforce the bargain that was struck between the two parties.¹⁶⁶

In modern practice, and despite the fact that contracts are incomplete, there are very few instances where a contract is unenforceable. An indefinite contract is one of those instances. As Robert Scott has explained: “One of the core principles of the common law of contracts is that the promises of parties to a legally enforceable contract must be *certain* and *definite* such that their intention may be ascertained with a *reasonable* degree of *certainty*.”¹⁶⁷ Just like in patent law, however, there is an understanding that “[a]ll agreements have some degree of indefiniteness and some degree of uncertainty.”¹⁶⁸ The question is, How much indefiniteness—how much uncertainty—is too much, such that the contract should be declared unenforceable? Answering this question is the focus of this Section.

Judge Cardozo gave us his answer in a 1921 opinion, when he explained that “[i]ndefiniteness must reach the point where construction becomes *futile*.”¹⁶⁹ Judge Cardozo was, in other words, communicating that if the court has something to work with, or, really, anything to work with, an agreement will not fail for lack of definiteness.¹⁷⁰ As Judge Cardozo demonstrated, the determination of whether a contract fails for indefiniteness is a question of law.¹⁷¹

Even more so now than in 1921, modern contract law embraces the “futile” standard where a court just needs something to work with in order to avoid finding a contract indefinite and unenforceable. The Restatement (Second) states that the terms of a contract must simply “*provide a basis* for determining the existence of a breach and for giving an appro-

166. This is an oversimplification, but one that is sufficient for purposes of this Article. Still, it is important to recognize that it is a general statement that not all contract scholars would agree with. For example, some scholars would narrow the statement, finding that “contract law aims to enforce, and should be designed to facilitate, primarily commercial promises.” Erik Encarnacion, *Contract as Commodified Promise*, 71 VAND. L. REV. 61, 66 (2018) (challenging this “widely held” view of contract law). Other scholars would argue that, at least “[f]rom the economic perspective, the aim of contract law is to maximize social utility rather than to give effect to private will.” Eyal Zamir, *The Inverted Hierarchy of Contract Interpretation and Supplementation*, 97 COLUM. L. REV. 1710, 1801 (1997); see also RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 27–28 (5th ed. 1998) (stating that “the common law is best (not perfectly) explained as a system for maximizing the wealth of society”).

167. Scott, *supra* note 165, at 1647 (emphasis added).

168. 1 ARTHUR LINTON CORBIN, CORBIN ON CONTRACTS § 95, at 396 (1963).

169. Heyman Cohen & Sons v. M. Lurie Woolen Co., 133 N.E. 370, 371 (N.Y. 1921) (emphasis added).

170. See *id.* At least for the agreement at issue in this case, all Judge Cardozo said they needed was some way to fix a quantity term: “We think the implication plain that the buyer is to fix the quantity, subject only to the proviso that quantity shall be limited by ability to supply.” *Id.*

171. White Sands Grp., L.L.C. v. PRS II, LLC, 998 So. 2d 1042, 1052 (Ala. 2008) (finding that “whether a writing fails for indefiniteness is properly a question of law”); see also Richter, S.A. Invs. U.S.A. v. Bank of Am. Nat’l Trust & Sav. Ass’n, 939 F.2d 1176, 1196 (5th Cir. 1991) (“[W]hether a contract fails [for indefiniteness] is a question of law.”).

appropriate remedy.”¹⁷² Similarly, the Uniform Commercial Code (UCC) Article 2 explains: “Even though one or more terms are left open a contract for sale does not fail for indefiniteness if the parties have intended to make a contract and there is a reasonably certain basis for giving an appropriate remedy.”¹⁷³

UCC Article 2 goes even further to avoid having a sale of goods agreement fail for lack of definiteness by permitting parties to leave out any term in their agreement except for the quantity term.¹⁷⁴ This includes leaving open the price and payment terms, place of delivery, shipping terms, risk of loss, warranties, and so on.¹⁷⁵ Of course, the more terms that are left open, the more unlikely it is that a court will be able to find a reasonable construction and appropriate remedy.

Overall then, and similar to Judge Cardozo’s futile standard of contract indefiniteness, if a court can “reach a fair and just result” by filling in gaps or inferring a term based on commercial practice or some other usage of custom, it will do so in order to avoid frustrating the parties’ intentions.¹⁷⁶ If a court cannot make any sort of construction, then the contract fails for indefiniteness and the analysis stops there.¹⁷⁷

As a result of this easy-to-meet standard of any reasonable construction, it is relatively rare that a contract will fail for indefiniteness. This standard fits the aims of contract law in two ways. First, contractual agreements generally only involve two parties. Second, once it is deter-

172. RESTATEMENT (SECOND) OF CONTRACTS § 33(2) (AM. LAW INST. 1981) (emphasis added).

173. U.C.C. § 2-204(3) (AM. LAW INST. & UNIF. LAW COMM’N 2017).

174. *See, e.g., id.* § 2-201, cmt. 1 (explaining that “[t]he only term which must appear is the quantity term which need not be accurately stated but recovery is limited to the amount stated”). Section 204 of the Restatement (Second) contains a parallel provision: “When the parties to a bargain sufficiently defined to be a contract have not agreed with respect to a term which is essential to a determination of their rights and duties, a term that is reasonable in the circumstances is supplied by the court.” RESTATEMENT (SECOND) OF CONTRACTS § 204.

175. *See, e.g., U.C.C.* § 2-305 (titled “Open Price Term” and setting forth a process to fill in an open price term); *id.* § 2-308 (“Absence of Specific Place of Delivery”); *id.* § 2-309 (“Absence of Specific Time Provisions; Notice of Termination”); *id.* § 2-310 (“Open Time for Payment or Running of Credit”).

176. 1 CORBIN, *supra* note 168, § 95 at 400 (“If the parties have concluded a transaction in which it appears that they intend to make a contract, the court should not frustrate their intention if it is possible to reach a fair and just result, even though this requires a choice among conflicting meanings and the filling of some gaps that the parties have left.”); *see also* FRIEDRICH KESSLER ET AL., CONTRACTS: CASES AND MATERIALS 180 (3d ed. 1986) (“Upon being satisfied that an agreement was intended or that one party justifiably relied on the deal and the other party ought to have known that he would so rely, the courts have been ready to supply missing terms and to give concrete meaning to indefinite terms, provided (it is often said), that objective criteria for establishing terms are available in the agreement itself, or that such terms can be inferred from a prior or subsequent course of dealing, or accepted business practices. To be sure, the mere fact that the parties thought they had a contract is not enough to turn an agreement utterly lacking in definiteness into a contract, but before courts are ready to strike down a bargain, ‘indefiniteness must reach the point where construction becomes futile.’” (quoting Heyman Cohen & Sons, Inc. v. M. Lurie Woolen Co., 133 N.E. 370, 371 (1921))).

177. *Vohs v. Donovan*, 777 N.W.2d 915, 918 (Wis. Ct. App. 2009) (“If an essential term is indefinite, thereby rendering the contract unenforceable, the analysis ends there.”).

mined that the parties intended to create an enforceable contract, the analysis continues with multiple checkpoints along the way, such as the statute of frauds and the parol evidence rule, to help ensure the parties' intentions are respected.

This means that going through the process to fill in the gaps of an incomplete contract is not only feasible but also only directly impacts the two parties named in the contract.¹⁷⁸ There is no "public" to worry about in bilateral agreements. So if a court gets the construction wrong, or if the construction unfairly favors one party, while it may not be ideal or what the parties intended before entering the agreement in the first place, the impact is not far-reaching. And at best, an unfavorable construction will serve to teach the parties to contract better the next time around. This latter policy will be further discussed in the next section when discussing ambiguities in contracts.

When thinking further about why this standard works in contracts—that if *any* construction can be made, the contract is enforceable—the main concern of enforcing an incomplete agreement is whether there was really an agreement between the parties. When studying cases of indefinite contracts, oftentimes courts find agreements are simply not construable when there is a serious question of whether there was an agreement in the first instance.

Take for example, an early case out of New York. In *Mackintosh v. Thompson*, the plaintiff argued that when he told his employer he intended to quit unless he was paid more, the employer promised to give him a share of profits from a current project.¹⁷⁹ When the plaintiff pushed to get the employer to name a particular amount or percentage he was told, "You can rely on me. I will see that it is all right."¹⁸⁰ When determining whether there was a definite and certain agreement here, the court had nothing to work with, ultimately finding that the supposed agreement was too indefinite to form an obligation on the part of the employer.¹⁸¹ With this telling of the story, already most favorable to the plaintiff, it is questionable whether there was any promise made at all by the employer, let alone one that was clearly and definitely stated to render it an enforceable agreement.

The other type of indefinite contract that consistently appears is in circumstances where there is not really a question that there is an agreement, but the language is so vague that it is impossible to make any sort of interpretation from the language. Another early New York case, *Varney v. Ditmars*, showing this type of indefinite contract had the following language that the New York Court of Appeals ultimately declined to con-

178. Occasionally there are third parties that will benefit from a contract, yet that third party must be named and the benefit the third party received must be clear. See RESTATEMENT (SECOND) OF CONTRACTS § 302.

179. *Mackintosh v. Thompson*, 68 N.Y.S. 492, 492 (N.Y. App. Div. 1901).

180. *Id.* at 494.

181. *See id.*

strue (and thus enforce): “[A] fair share of . . . profits.”¹⁸² In this case, the plaintiff draftsman argued that was the language his architect used to motivate him to give more effort on important, upcoming projects.¹⁸³ Simply, the word “fair” is too vague. Or, at least, the language is too vague in light of zero helpful evidence surrounding the agreement such as past performances where the parties said “fair” and ended up giving a particular amount to the plaintiff.

In both of these opinions, the court found, in essence, that it was useless or *futile* to construe the language. There was simply not enough to work with, and to construe something here with the language of “[y]ou can rely on me[,] I will see that it is all right”¹⁸⁴ or “a fair share of . . . profits”¹⁸⁵ risks enforcing a promise that was never made or intended as a promise. Again, if we take seriously that the aim of contract law is to give effect to the intentions of parties, then this is the right standard to apply when determining whether a contract is definite.

Yet, what happens when a term is not completely left open or left out of the agreement, but rather is either unclear on its face, or through some sort of external event, it is revealed that the term had a different meaning to each respective party? That is when the doctrine of ambiguity comes into play. The next section explores how contract law handles different types of ambiguity that appear intrinsically or extrinsically to an agreement.

B. AMBIGUOUS CONTRACTS

A problem for both patent law and contract law is that, at least in part, words do not just have one precise meaning. As Holmes said: “It is not true that in practice (and I know no reason why theory should disagree with the facts) a given word or even a greater collocation of words has one meaning and no other. A word generally has several meanings, even in a dictionary.”¹⁸⁶ Moreover, like in patent law where the Supreme Court has warned: “Some persons seem to suppose that a claim in a patent is like a nose of wax which may be turned and twisted in any direction, by merely referring to the specification, so as to make it include something more than, or something different from, what its words express,”¹⁸⁷ so, too, contract law encounters the problem of word manipulation (whether intentional or not).

Despite this problem of the imprecision of language, or, likely better stated, in light of it, courts most often state that the “plain meaning” of

182. *Varney v. Ditmars*, 111 N.E. 822, 823 (N.Y. 1916).

183. *See id.* 823–24.

184. *Mackintosh*, 68 N.Y.S. at 494.

185. *Varney*, 111 N.E. at 823.

186. Oliver Wendell Holmes, *The Theory of Legal Interpretation*, 12 HARV. L. REV. 417, 417 (1899).

187. *White v. Dunbar*, 119 U.S. 47, 51–52 (1886).

the language of a contract should govern.¹⁸⁸ The benefit of applying the plain meaning rule is to limit the amount of extrinsic evidence admitted when determining the intent of the parties, as well as to encourage parties to not view terms within a contract like a nose of wax.¹⁸⁹ As Samuel Williston and Richard Lord have written: “[W]hen the terms of a writing are plain and unambiguous, there is no room for interpretation or construction since the only purpose of judicial construction is to remove doubt and uncertainty.”¹⁹⁰

Accordingly, extrinsic evidence, such as previous discussions or drafts of the agreement between the parties, is only admissible if the court concludes that the contract is definite but also ambiguous.¹⁹¹ As with indefiniteness in contracts, the question of whether a contract is ambiguous is a question of law.¹⁹²

The standard for finding that a contract as a whole, or certain portions or provisions, is ambiguous is straightforward: when a contract or contract provision “is susceptible to two reasonable interpretations” it is ambiguous.¹⁹³ And starting from the opposite approach—unambiguity—Williston explains the standard for finding that a contract is unambiguous:

When the court can determine the meaning of a written contract without any guide other than knowledge of the simple facts on which, from the nature of language in general, its meaning depends, the terms of the contract will be deemed unambiguous. To be unambiguous, a contract must be *reasonably capable of only one construction*; in other words, a contract is unambiguous if it can be given a definite or certain meaning as a matter of law.¹⁹⁴

This construction is done from the viewpoint of someone that is “reasonably intelligent” and is familiar with the industry in which the agreement is set, so that if there are any terms of art or unique customs, this will be taken into account when determining whether there is an ambiguity or not.¹⁹⁵

188. See CHARLES L. KNAPP ET AL., *PROBLEMS IN CONTRACT LAW: CASES & MATERIALS* 413 (9th ed. 2019) (“Courts often state that the ‘plain meaning’ of the language of a contract should govern and that extrinsic evidence is admissible only if the court concludes that the contract is ambiguous.”).

189. *But see* 3 CORBIN, *supra* note 168, § 538 at 66–69 (arguing that courts should consider all evidence, both objective and subjective, in order to determine the intention of the parties at the time the agreement was entered).

190. 11 SAMUEL WILLISTON & RICHARD A. LORD, *A TREATISE ON THE LAW OF CONTRACTS* § 30:4 (4th ed. 1993).

191. See JOSEPH M. PERILLO, *CONTRACTS* § 3.10, at 136–37 (7th ed. 2014).

192. *Mylan Inc. v. SmithKline Beecham Corp.*, 723 F.3d 413, 419 (3d Cir. 2013) (“Whether a contract is ambiguous is an issue of law subject to plenary review.”).

193. *Sköld v. Galderma Labs. L.P.*, 917 F.3d 186, 192 (3d Cir. 2019) (citing *Duquesne Light Co. v. Westinghouse Elec. Corp.*, 66 F.3d 604, 614 (3d Cir. 1995)).

194. WILLISTON & LORD, *supra* note 190, § 30:4 (emphasis added).

195. See *id.*; see also *Rastall v. CSX Transp., Inc.*, 697 A.2d 46, 50 (D.C. 1997) (“In this context, a reasonable person is: (1) presumed to know all the circumstances surrounding the contract’s making and (2) bound by usages of the terms which either party knows or has reason to know.”).

But beyond just labeling something ambiguous or not, most commonly, courts (and scholars) separate ambiguity into one of two types: patent (or intrinsic) ambiguity and latent (or extrinsic) ambiguity. Within those two types of ambiguity, there are subtypes.¹⁹⁶

A patent ambiguity is one that exists on the face of the contract, such as a term that is defined differently in various sections of the agreement or a term that is inappropriately used given the context of the agreement.¹⁹⁷ This type of ambiguity is within the four corners of the agreement, meaning it is intrinsic to the agreement. A specific type of patent ambiguity is the open-ended ambiguity, which occurs at times when open standards such as “best efforts” and “industry standards” are used.¹⁹⁸

In contrast to a patent ambiguity, a latent ambiguity does not appear on the face of the agreement. Instead, a latent ambiguity only “arises from extraneous or collateral facts which make the meaning of a written [agreement] uncertain.”¹⁹⁹ The classic latent ambiguity is an instance of indefiniteness of expression when the contract refers to a place, person, or thing, yet extrinsic evidence shows that there are two or more of that named place, person, or thing. This type of ambiguity should not be confused with the doctrine of contract indefiniteness, which was just discussed above. Here, contract law is simply using the word “indefiniteness” to refer to the lack of precision of language.

For example, when parties used the description “hay house” in an insurance policy, it seemed clear and unambiguous on its face, yet later it was discovered that there were two separate “hay houses.”²⁰⁰ Proving that this type of ambiguity exists often means that evidence that is outside—extrinsic to—the agreement must be introduced.²⁰¹

A more modern example is a Federal Circuit opinion involving a patent settlement.²⁰² After a patent suit had been settled and a consent decree entered that permitted the defendant to manufacture and sell a product containing electrolytes, glucose, and psyllium as long as, among other requirements, the amount of electrolytes and glucose was equal to or greater than 69.5% by weight, a latent ambiguity arose as to the meaning

196. See WILLISTON & LORD, *supra* note 190, § 30:4 (describing different types of ambiguities that arise in agreements).

197. See *Ambiguity*, BLACK'S LAW DICTIONARY (rev. 4th ed. 1968) (“A *patent* ambiguity is that which appears on the face of the instrument, and arises from the defective, obscure, or insensible language used.”).

198. See Mark P. Gergen, *The Use of Open Terms in Contract*, 92 COLUM. L. REV. 997, 998–99 (1992) (describing “open terms” as “contractual provisions that expressly grant a party substantial, but not completely unfettered, discretion in performance”).

199. *Easton v. Wash. Cty. Ins.*, 137 A.2d 332, 336 (Pa. 1957).

200. See *Lycoming Mut. Ins. v. Sailer*, 67 Pa. 108, 112 (Pa. 1870); see also *Koplin v. Franklin Fire Ins. of Phila.*, 44 A.2d 877, 879 (Pa. Super. Ct. 1945) (showing a latent ambiguity arose in an insurance policy where plaintiff had two chicken houses and it was unclear which chicken house was No. 1 and which was No. 2).

201. See *Duquesne Light Co. v. Westinghouse Elec. Corp.*, 66 F.3d 604, 614 (3d Cir. 1995) (explaining that “extrinsic evidence may be utilized to demonstrate the existence of a latent ambiguity”); see also *Sköld v. Galderma Labs. L.P.*, 917 F.3d 186, 192 (3d Cir. 2019) (“Ambiguity arises when language . . . has a double meaning.”).

202. See *Gjerlov v. Schuyler Labs., Inc.*, 131 F.3d 1016 (Fed. Cir. 1997).

of the term “glucose.”²⁰³ This ambiguity became apparent only after the patentees commissioned a laboratory test of the defendant’s new formulation.²⁰⁴ The patentees’ test interpreted the term “glucose” to mean glucose anhydrous, while the defendant’s test interpreted the term “glucose” to mean glucose monohydrate.²⁰⁵ This is a classic indefiniteness of expression case, when the contract employs a critical term that is not sufficiently defined.

Another example of this type of patent ambiguity is the infamous “chicken case,” *Frigalment Importing Co. v. B.N.S. International Sales Corp.*,²⁰⁶ which most law students study in their first-year contracts course. Remember, these ambiguities only come to the surface after extrinsic evidence is introduced showing that the term could be interpreted by the parties, and later construed by the court, in more than one reasonable way.

Another type of latent ambiguity occurs when a contract uses a term that has a double meaning. For example, a court found the use of the symbol “\$” or of the term “dollars” in a contract providing for compensation of workers was ambiguous because some of the workers were based in Canada and others were based in the United States.²⁰⁷ There, the court held it was not clear whether the “\$” symbol or the term “dollars” was in reference to Canadian dollars or American dollars.²⁰⁸

Whether there is a patent or latent ambiguity, the court will move on in the next step of interpretative analysis. As the *Frigalment* case demonstrated, as well as the glucose opinion above, the next steps of analysis most often include the introduction of parol evidence, as well as multiple expert opinions.²⁰⁹ The goal of this extrinsic evidence is to determine which construction, out of the two or more reasonable constructions of the at-issue term or provision, is the one that the parties intended.²¹⁰ While this significantly increases transaction costs, the parties had every opportunity to avoid this ambiguity when forming the contract. Further, the parties can also decide *ex ante* how to handle this type of ambiguity in the contract, as well as which party pays for any necessary litigation or arbitration.²¹¹

There is also a doctrine of contract law that may come into play when

203. *Id.* at 1018–20.

204. *Id.* at 1018.

205. *Id.*

206. 190 F. Supp. 116 (S.D.N.Y. 1960). I am not the first patent scholar to make this connection with this particular case or in this context. See Burk & Lemley, *supra* note 1, at 1758 & n.60 (citing *Frigalment* and explaining that they “have observed elsewhere that patent infringement analysis requires the interpreter to map textual claims onto objects or processes in the real world”). This naturally also occurs in some other areas of law, such as determining whether a contractual provision is satisfied by the goods delivered.

207. *Rastall v. CSX Transp., Inc.*, 697 A.2d 46, 51 (D.C. 1997).

208. *Id.*

209. See *supra*, notes 202–206 and accompanying text.

210. See 3 CORBIN, *supra* note 168, § 538.

211. See generally John F. Coyle & W. Mark C. Weidemaier, *Interpreting Contracts Without Context*, 67 AM. U. L. REV. 1673, 1684 (2018) (noting that parties can decide *ex*

an ambiguity arises in an agreement: *contra proferentem*.²¹² *Contra proferentem* is a well-established doctrine of contract law that is best described by the Restatement of Contracts: “Where words or other manifestations of intention bear more than one reasonable meaning an interpretation is preferred which operates more strongly against the party from whom they proceed, unless their use by him is prescribed by law.”²¹³ In other words, under this doctrine, ambiguities in terms should be construed against the drafting party. The justification of this rule is simple: the drafter is the party that had the chance to avoid ambiguous language in the first instance, and, moreover, is also the party that has the chance to avoid ambiguous language in the next contract.²¹⁴ The Restatement (Second) of Contracts explains in a comment that the drafting party is “more likely than the other party to have reason to know of uncertainties of meaning” and may “leave meaning deliberately obscure.”²¹⁵

Overall, the standard for determining when a contract or contract provision is ambiguous is stricter than the standard for determining when a contract is indefinite. To avoid classification as an indefinite contract, the court must ensure that the construction of the agreement is not futile—that there is a construction possible that will result in a fair or just outcome for the parties. To avoid classification as an ambiguous contract, thereby opening the door to extrinsic evidence, the court must ensure not only that there is a construction but also that there is only one reasonable construction of the at-issue language within the agreement. If there are two reasonable constructions that can be made, then the contract is deemed ambiguous. Again, note that the outcome of these determinations is dramatically different: indefinite contracts are ruled void and unenforceable, and ambiguous contracts are likely still enforceable, yet the extent to which they are enforceable depends on further interpretative analysis.

ante whether or not to arbitrate agreements, and the implications arising from such decisions).

212. Latin meaning “against the offeror.” *Contra proferentem*, BLACK’S LAW DICTIONARY (11th ed. 2019). This doctrine still exists in modern law, although it most often arises in the case of insurance. There, the “ambiguity doctrine” is the well-known and entrenched rule that when there is an ambiguity in a policy or contract of insurance, the ambiguity is ordinarily to be construed strictly against the insurer and liberally in favor of the insured. See David S. Miller, Note, *Insurance as Contract: The Argument for Abandoning the Ambiguity Doctrine*, 88 COLUM. L. REV. 1849, 1850 (1988); John P. Arness & Randall D. Eliason, *Insurance Coverage for ‘Property Damage’ in Asbestos and Other Toxic Tort Cases*, 72 VA. L. REV. 943, 948–50 (1986) (describing the ambiguity doctrine as an “established principle of insurance law”).

213. RESTATEMENT (FIRST) OF CONTRACTS § 236(d) (AM. LAW INST. 1932).

214. See Richard Frankel, *The Arbitration Clause as Super Contract*, 91 WASH. U. L. REV. 531, 555–56 (2014).

215. RESTATEMENT (SECOND) OF CONTRACTS § 206, cmt. a (AM. LAW INST. 1981); see also Frankel, *supra* note 214, at 555–56 (explaining that this rule helps to prevent “drafting parties [from] hav[ing] the perverse incentive to write purposefully ambiguous contracts that they can [then] exploit to their benefit and to the detriment of the non-drafting party”).

C. MOVING TOWARDS GREATER CERTAINTY IN PATENT LAW

Before getting into the specifics of how comparing patent claim definiteness and ambiguity in the contract law context is helpful, there is a similarity between patent law and contract law that should not be overlooked here. As Dan Burk and Mark Lemley highlighted in their article on claim construction, “Lawyers are paid to interpret language—whether in statutes, contracts, or patent claims—in ways that serve their clients’ interests. And they are, as a general matter, quite good at it.”²¹⁶ Moreover, beyond being paid, attorneys are charged with zealously advocating for their clients.²¹⁷ Whether it is this charge by itself, the money, an internal drive to find the best outcome within the law for their client, or some combination thereof, the law should expect lawyers to argue for an interpretation of an issued patent that reflects what their respective client wants the claim to say (or language to mean in a contract). Because of this, the question should not simply be: What standard of indefiniteness should the USPTO and federal courts apply? But, rather, what standard of indefiniteness is best in those respective forums in light of the aims of patent law?²¹⁸

When answering this question, one simple answer is that the standard of indefiniteness in patent law should be the same as it is in contract law. In other words, that patent law and contract law should handle patents and contracts that are not certain or definite in the same way. In terms of enforcement, or lack of enforcement, this Article agrees with the result but not the answer to the posed question. Yes, contract law should not enforce a contract that is indefinite, and, in turn, patent law should not grant a patent in the first instance, or should invalidate (thereby declaring the patent unenforceable), any patent that is indefinite. However, as to the standard to determine whether a patent or contract is definite or in-

216. Burk & Lemley, *supra* note 1, at 1750; *see also* BESSEN & MEURER, *supra* note 9, at 57 (explaining that “patent applicants [through patent attorneys] game the system by drafting ambiguous patent claims that can be read narrowly during examination, such that they avoid a novelty rejection, and broadly during litigation, which supports a finding of infringement”); Fromer, *supra* note 15, at 552 (finding “patentees rationally have little to no incentive to offer more information than the patent laws require and have an incentive to obfuscate information they provide whenever possible”); Rajec, *supra* note 8, at 1902–03 (explaining in the patent context that “third parties theoretically have notice of what is protected” yet the meaning of claim terms, and the differences of potential meanings, “may result from ambiguity introduced by a patent applicant [through a patent attorney], either unintentionally, or with the intent to cover future and unpredictable variations on her invention”).

217. MODEL RULES OF PROF’L CONDUCT r. 1.3 cmt. 1 (AM. BAR ASS’N 2020) (“A lawyer must also act with commitment and dedication to the interests of the client and with zeal in advocacy upon the client’s behalf.”).

218. Asking a similar question, but in the context of contract law, Schwartz and Scott were not interested in asking the “conventional normative question: What contract law should the state provide?” Schwartz & Scott, *supra* note 48, at 618. Instead, they wanted to ask: “What contract law do business firms want the state to provide?” *Id.* Their answer: firms would prefer a strict formalist approach—“firms want the state to enforce the contracts that they write, not the contracts that a decisionmaker with a concern for fairness would prefer them to have written.” *Id.*

definite, patent law and contract law should not utilize the same standard. The reason: third parties.

Enforceable agreements generally involve two parties: buyer and seller, mortgagee and mortgagor, creditor and debtor, and so on. When agreements have an effect on a party not in the contract—a third party—modern contract law separates these third parties into two categories: intended beneficiaries and incidental beneficiaries.²¹⁹

An intended beneficiary is the only type of third party that has any rights or duties under an agreement that it is not a party to. Generally, to be designated as an intended beneficiary, there has to be some express language in the agreement demonstrating that the contracting parties intended to benefit a particular third party or group of third parties.²²⁰

This is a significant departure from patent law, where almost any justification given for patent law's grant of exclusive rights is tied directly to the effect on third parties. Although the use of the terminology, "third parties," is not as common in patent law as it is in contract law, the concept of downstream effects on third parties is not new to patent law.²²¹ Indeed, the commonly touted utilitarian goal of patent law is that the patent system should be designed and act in such a way as "to promote the development, disclosure, and use of new technologies, ideally in a way that maximizes social welfare."²²²

The involvement, or downstream effects, on third parties has a significant influence on the level of certainty and precision in the law. This is demonstrated by the difference between two fields of commercial law: the informality of the UCC Article 2 (Sale of Goods) compared to that

219. RESTATEMENT (SECOND) OF CONTRACTS § 302 cmt. a ("This Section distinguishes an 'intended' beneficiary, who acquires a right by virtue of a promise, from an 'incidental' beneficiary, who does not.").

220. See *id.* § 302(1); see also *Vogan v. Hayes Appraisal Assocs., Inc.*, 588 N.W.2d 420, 424 (Iowa, 1999) (explaining that the contract-at-issue "[was] so expressed as to give [the third party] reason to know that such benefit is contemplated by the [party to the contract] as one of the motivating causes of his making the contract" (citing *Tredrea v. Anesthesia & Analgesia, P.C.*, 584 N.W.2d 276, 281–92 (Iowa, 1998))).

221. The impact of patent rights on particular third parties, as opposed to the general public or the specific PHOSITA, is undertheorized compared to fields of law such as contract law, tort law, and criminal law. That said, there are scholars who are routinely exploring and analyzing third-party rights in intellectual property law. Sarah Rajec is one of those scholars, arguing, for example, that "when third-party property interests are strongest, courts are most likely to deviate from the maximalist version of a private property rights understanding of patents." Rajec, *supra* note 8, at 1862; see also Sarah R. Wasserman Rajec, *Patents Absent Adversaries*, 81 BROOK. L. REV. 1073, 1073 (2016) (identifying the scope of a patent impacts parties beyond those directly represented in any given dispute and arguing that "adjudicating patents absent adversaries . . . is both inefficient and ineffective to construe patent claims without the guiding context of a controversy").

222. John M. Golden, *Principles for Patent Remedies*, 88 TEX. L. REV. 505, 509 (2010); see also Karen E. Sandrik, *Formal but Forgiving: A New Approach to Patent Assignments*, 66 RUTGERS L. REV. 299, 343 (2014) ("It is generally accepted that patent law rests on a utilitarian foundation whereby Congress has the power to create patent laws to 'promote the Progress of Science and useful Arts.');" U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries").

of the rigid, bright-line rules articulated in Article 9 (Secured Transactions).²²³

Because of the drastically different aims of contract law and patent law, the comparison and contrast between the indefiniteness doctrine in contract law and patent law is one that must be made with caution and intentional thought. This is what this Article intends to do here.

Furthermore, as this Section will show, what one field of law is doing is not likely a good fit for the other; however, when determining whether a patent is definite, federal courts are using, at least at times, a standard that is significantly similar to the standard state courts use when determining whether a contract is definite. This is problematic. The overlap in indefiniteness standards also demonstrates in a different way why the Supreme Court wanted to step into the area of patent indefiniteness after not having done so for decades. It also demonstrates why John Love, a former Deputy Commissioner for Patent Examination Policy at the USPTO, called for a stricter standard of claim definiteness in pre-issuance patents.

Recall that in contract law, a court will only deem a contract unenforceable for indefiniteness when there is no possible construction of an enforceable term—when an effort to construe the enforceable term is “futile.” How does the standard of indefiniteness in contract law compare to the various standards in patent law? In short, the futile standard for definite contracts is strikingly similar to the amenable to construction or insolubly ambiguous standard in patent law.

As patent scholars had noted about the insolubly ambiguous standard prior to the *Nautilus* opinion, it was not a “significant hurdle for patentees” for “some time.”²²⁴ The Federal Circuit even selected the same word as Judge Cardozo—*futile*—explaining a finding of patent indefiniteness was only appropriate “if reasonable efforts at claim construction prove *futile*.”²²⁵ And finally, Judge Plager of the Federal Circuit stated prior to *Nautilus* that “the general conclusion from our law seems to be this: if a person of ordinary skill in the art can come up with a *plausible meaning* for a disputed claim term in a patent, that term, and therefore the claim, is not indefinite.”²²⁶ It is like the Federal Circuit was stating that so long as there is *any* construction that can be made, the claim will not fail for indefiniteness.²²⁷ This is the standard for finding a contract

223. See Sandrik, *supra* note 222, at 340–43 (explaining that the difference in formality and bright-line rules in Article 2 versus Article 9 rests with the involvement of third parties in the latter and very little third-party involvement in the former).

224. CRAIG NARD, *THE LAW OF PATENTS* 154 (3d ed. 2014); see also discussion *supra* Part III.

225. *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (emphasis added) (quoting *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001)).

226. *Enzo Biochem, Inc. v. Applera Corp.*, 605 F.3d 1347, 1348 (Fed. Cir. 2010) (Plager, J., dissenting from denial of rehearing en banc) (emphasis added).

227. This word, “any,” is used in the *Datamize* opinion. See *supra* Part III for a full discussion.

indefinite, one that is at times exceedingly hard to fail with the flexible and informal system of UCC Article 2 and modern contract law. And the Federal Circuit is now, just six years later, already substantially moving back to this standard, even after the *Nautilus* opinion.

But when viewing that easy-to-meet standard in patent law through the lens of contract law, it is most evident that the insolubly ambiguous standard is not strict enough for the aims of patent law. How is that standard going to motivate patent drafters to claim precisely so that third parties can rely on the claims to inform them of where the boundaries of the invention are? It is not. Moreover, how is that standard going to lead to more certainty *ex ante* of litigation for third parties to rely on when making decisions regarding research and product development? It is not. The standard for patent law indefiniteness must be stricter to accomplish the aims of patent law.

Yet, contrast the standard of indefiniteness in contract law with the stricter standard of finding a contract ambiguous. Recall that to be unambiguous, “a contract must be *reasonably capable of only one construction*.”²²⁸ This standard is strikingly similar to the *Miyazaki* standard employed in patent law to pre-issuance patent claims. There, the Board explained that “if a claim is amenable to two or more plausible claim constructions” then the patent examiner is justified in rejecting the claims based on indefiniteness.²²⁹ Of course, when two reasonable constructions are possible, the result is different in contract law than in patent law. In contract law, the contract is held ambiguous and the interpretation analysis moves forward. In patent law, the indefinite patent claims at the pre-issuance stage are rejected and the patent applicant has a chance to amend the claims or to explain to the examiner why the examiner is wrong. At the post-issuance stage, the patent is declared invalid (and therefore unenforceable).

Another detail to compare and contrast of patent law’s doctrine of indefiniteness and how contract law handles ambiguities in contract law, is from who’s perspective the respective standards construe the at-issue language. In patent law, the construction is from the perspective of the skilled artisan, the PHOSITA, and in contract law, it is from the perspective of the “reasonably intelligent person who has examined the context of the entire integrated agreement and who is cognizant of customs, practices, usages, and terminology as generally understood in the particular trade or business.”²³⁰ Although the standard is more informally stated in contract law, this reasonably intelligent person is somewhat similar to the PHOSITA, as the person has experience in the particular industry.

For example, if the contract at issue involves two pharmaceutical companies disputing whether one party used the required “reasonable ef-

228. WILLISTON & LORD, *supra* note 190, § 30:4 (emphasis added).

229. *Ex parte Miyazaki*, No. 2007-3300, 2008 WL 5105055, at *5 (B.P.A.I. Nov. 19, 2008) (precedential); *see also* discussion *supra* Part III.

230. WILLISTON & LORD, *supra* note 190, § 30:4.

forts” towards “identifying one or more library compounds with ‘activity in the Field,’” contract law informs that the construction of the term “reasonable efforts” is from the perspective of one knowledgeable of these types of joint research agreements in the relevant pharmaceutical industry.²³¹ The import of that experience is that the person should know and understand how language is and is not used in that particular industry.

Yet contract law takes the standard for finding a contract unambiguous a step further than patent law. The court is guided in its interpretive analysis of a contract by the classification of the ambiguity: Is it a patent or latent ambiguity? If latent, what type of latent ambiguity? This helps the court and parties understand what extrinsic evidence may be relevant. It also helps parties who are discussing settlement determine how a finding of ambiguity might impact the costs of continuing forward in litigation.

As a result, contract law has been able to create consistent precedent and better certainty in an area that is mired in uncertainty. This is not to say that the ambiguity analysis in contract law is an easy one, but the analysis is predictable (even if the result is not). This makes sense, for “[e]nforcement of written agreements presupposes a theory of interpretation.”²³² Generally, courts cite and stick to the plain meaning rule.

Moreover, and perhaps most important to the potential future of more definite claims, due to the recognition that there are different types of ambiguity, courts (and hopefully the litigating parties) often reflect on how the at-issue ambiguity may have been avoided. Patent law can learn from contract law’s more nuanced approach, which has an eye towards a theory of interpretation and understands that with indefiniteness, at least, a contract will only not be enforced if there is no information for a court to work with. Contract law scholars have certainly criticized this approach, as it does not motivate drafters of contracts to draft their agreements more completely. Likewise, that same criticism can be leveled at the current state of patent law’s indefiniteness doctrine. As the law quickly erodes back to its pre-2014 state, at least in federal litigation, patent holders know their patents are unlikely to be invalidated on indefiniteness grounds so long as there is at least one plausible meaning to the terms within their claims.

Finally, one item that is missing from patent law but is found in contract law on this subject is empirical research. Some patent scholars, such as John Allison and Lisa Ouellette, have started this much needed work in their empirical study looking at how § 112 functions in practice, with § 112 covering not only claim definiteness but also the disclosure require-

231. I use this “prototypical” example from contract scholars who created and used this example to illustrate their concept of how parties use “braided contracts” to manage uncertainty. See Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Braiding: The Interaction of Formal and Informal Contracting in Theory, Practice, and Doctrine*, 110 COLUM. L. REV. 1377, 1377, 1405 (2010) (creating a prototypical example of a pharmaceutical collaboration and licensing agreement to illustrate that parties respond to uncertainties by intertwining or braiding formal and informal terms together).

232. Schwartz & Scott, *supra* note 48, at 618.

ments of enablement and written description.²³³ What their study revealed, *inter alia*, is that there was a statistically significant difference that, for example, “electrical patents were less likely to be invalidated than those in other technology fields on written description and were bested only by mechanical patents on enablement.”²³⁴ Moreover, “[p]atents in the pharmaceutical industry that were tested in litigation *not* triggered by a generic drug maker’s filing of an ANDA . . . fared poorly on both written-description and definiteness grounds.”²³⁵

This is important work, but it is just one step towards better understanding how different types of patents fair in § 112 challenges. Classification of the type of claim ambiguities would be helpful for courts to start creating consistent precedent and would allow further empirical study by patent scholars. Like contract law scholars such as Schwartz and Scott have done (in their argument that firms want a stricter formal approach to interpretation), with further empirical data and research, patent law scholars could help determine what approach best furthers the goals of patent law. I seek to do at least some of that work in a future project.

VII. CONCLUSION

While contract law and patent law are fields that are more different than alike, this Article demonstrates that changing the lens through which one views the doctrine of patent law indefiniteness can bring a fresh perspective that leads to better understanding of the various standards used within the doctrine. Here, comparing and contrasting the indefiniteness doctrines in patent law and contract law, as well as exploring how contract law handles ambiguity more generally, has shown how much indefiniteness is too much indefiniteness given the unique policy aims of patent law.

This Article has argued that the insolubly ambiguous standard, which is still routinely applied by district courts and the Federal Circuit despite its overruling in *Nautilus*, is not a strict enough standard in light of patent law’s aims. In essence, this is the standard in contract law’s indefiniteness doctrine, a field that generally only directly impacts two parties. With the foundation of the patent system resting on a properly functioning system that discloses information to third parties, the insolubly ambiguous standard does not promote sufficient certainty in the drafting and interpretation of patent claims.

Furthermore, this Article has shown that one standard currently in place at the USPTO could work with the addition of more nuanced categories, like how contract law handles ambiguities in contract language. This standard is the USPTO’s stricter *Miyazaki* standard, where claims should only be amenable to one construction. With only one reasonable

233. John R. Allison & Lisa Larrimore Ouellette, *How Courts Adjudicate Patent Definiteness and Disclosure*, 65 DUKE L.J. 609, 609 (2016).

234. *Id.* at 613.

235. *Id.* at 614.

construction of terms within patent claims, patent applicants will be more likely to claim the actual metes and bounds of their respective invention with more precision. This, in turn, may lead to more effective disclosure and notice to third parties interested in learning from or designing around the patented invention or technology.

