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Formalism, Realism, and Patent Scope

Tun-Jen Chiang*

INTRODUCTION

A popular theme these days when discussing the Court of Appeals for the Federal Circuit is that it is “formalist.”1 According to this developing meme, the Federal Circuit prefers rigid, sweeping, legalistic rules that fail to adequately consider complex policy judgments; and it is then reversed by the Supreme Court for this inflexibility.2 Various theories are put forward to explain the Federal Circuit’s penchant for formalistic analysis. Peter Lee argues that it is because generalist judges, especially district court judges, are psychologically averse to complex technology, and therefore use formalist rules to avoid grappling with complex issues.3 Attributing the same result from a diametrically opposite cause is Jeffrey Lefstin, who argues that the Federal Circuit’s formalistic jurisprudence is the legacy of its predecessor, the Court of Customs and Patent Appeals, a specialized court that reviewed decisions from the Patent and Trademark Office.4 Instead of an aversion to complex technology—rather implausible in the context of the CCPA—Lefstin argues that the court adopted a formalistic view of patent law in order to assert control over the more technically sophisticated tribunal beneath it.5 Although these commentators disagree radically on the causes of formalism, they agree that the Federal Circuit is formalistic.

My goal in this Essay is to challenge this emerging wisdom, or at least qualify its contours, in the area of patent scope, an area on which many critics of Federal Circuit formalism focus.

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5. Id. at 858.
their analysis. The Federal Circuit is not a formalistic court in practice. To be sure, the Federal Circuit often uses formalist-sounding rhetoric, but such is true of many other courts and judges. The contribution of Legal Realism was that despite such rhetoric, judges in fact were not jurisprudential machines, and legal decisions were not purely the result of logical deduction from precedent and doctrine. Such is no less true of the Federal Circuit. To speak of the Federal Circuit as a formalistic court is thus to elevate the court’s rhetoric over its actual jurisprudence.

Once we look beyond the rhetoric, the Federal Circuit’s jurisprudence is just as flexible and indeterminate as any other area of law. This is particularly true of patent scope, the main focus of this Essay. The Federal Circuit’s wide discretion over patent scope through claim interpretation and determination of claim validity through enablement is widely known. This has been known at least since Merges and Nelson argued that patent breadth, rather than the statutorily fixed patent term, was the superior instrument of effectuating the utilitarian policy of the patent system.

There is some tension, then, between two oft-heard claims regarding the Federal Circuit’s patent scope jurisprudence. The first claim is that this jurisprudence is formalistic. The second is that this jurisprudence is wildly unpredictable and indeterminate. If formalism means adherence to rigid and deterministic rules, then these two propositions almost necessarily contradict each other on the level of actual results. The ironic consequence of subscribing to formal rhetoric while exercising pragmatic judgment sub rosa is that the Federal Circuit is criticized for both. Again, however, this phenomenon is ubiquitous across the law—almost every court pretends that it has less discretion than in actuality; and exposing this fact was a key point of the Legal Realism movement.

6. See Holbrook, supra note 2; Lee, supra note 3, at 29; Lefstin, supra note 4, at 879; Thomas, supra note 1, at 792 (“Some of the most prominent principles of the patent law, governing the subject matter that can be patented, rights acquisition, and the scope of protection, have become more rulebound.”).
8. See, e.g., K.N. LLEWELLYN, THE BRAMBLE BUSH: ON OUR LAW AND ITS STUDY 66-69 (1951) (“People—and they are curiously many—who think that precedent produces or ever did produce a certainty that did not involve matters of judgment . . . do not know our system of precedent.”).
I. FORMALISM DEFINED

Stated generally, formalism is the philosophy that law is a self-contained discipline, and that there is always one “correct” answer to legal problems that can be reached using the internal tools of the discipline, primarily logic, precedent, and rules. This is used in contradistinction to realism, which argues that, at least in some cases, the tools of formal legal analysis will not produce a single correct answer, and that legal decision-makers will in such cases refer to extra-legal policy considerations. Realism (at least its moderate strains) does not imply there is no right answer at all to cases, but holds instead that the right answers often cannot be arrived at using law alone and requires consideration of broader non-legal sources such as economic policy or industry custom. The dispute is less one about whether case outcomes are determinate or correct and more about the triggers that determine such outcomes.

From this general definition of formalism, it is useful to further subdivide the schools of formalist thought. The extreme version of formalism may be described as “mechanical jurisprudence,” which is the belief that not only is there a right answer to legal questions that can be derived using the internal sources of the legal discipline, but that this correct answer can be rather straightforwardly deduced through a mechanical process. Although practically no modern legal academic believes that mechanical jurisprudence is an even remotely accurate way to describe the operation of our legal system, it holds powerful sway over popular discussion of law and the judicial role.

A less ambitious theory of formalism is associated primarily with Ronald Dworkin. Dworkin acknowledges that legal reasoning is not a mechanical exercise, and that legal answers require exercising judgment. The only thing that makes a scholar like Dworkin a formalist is his thesis that there is a “right” answer to every legal question based on legal tools, even though reasonable judges can and often will disagree on what that right answer...
is. The concession that many people will disagree on what the right answer is makes the right answer thesis fundamentally untestable and unfalsifiable. Absent the stronger premise of mechanical jurisprudence that the correct legal answer can be discerned in some predictable manner using a limited tool set, the divide between formalists and realists is more theoretical than practical, since realists too acknowledge judges seek to reach a correct result—they just think that judges refer to extra-legal tools.

Formalism, especially in its mechanical jurisprudence guise, is associated with rules. Rules are supposed to cabin judicial discretion and provide determinate answers. The association is only a loose one, since almost everyone acknowledges that the legal system does not rely solely on mechanical rules. Conversely, Legal Realists do not deny that courts often do proclaim rigid rules that dictate particular outcomes in particular situations. Instead, realism views legal doctrine as hopelessly indeterminate not (or, at least, not primarily) because of the indeterminacy of discrete doctrinal sources but mainly because of their multiplicity. The indeterminacy of legal doctrine derives first and foremost from the available leeway in choosing the applicable rule rather than from the ambiguity of that rule once chosen.

The question is not whether there are rules, but whether the rules combine to produce a determinate answer.

II. HIDDEN REALISM IN PATENT SCOPE

The indeterminacy of legal doctrine in the area of patent scope is so well known as to require little elaboration here. As background, patent scope is governed primarily by two instruments. At a first level, courts regulate the practical patent scope by interpreting claims broadly or narrowly. In addition, courts can regulate patent breadth by invalidating a claim for being unduly broad, which in modern doctrine is done under the rubric of section 112 of the patent statute. Both of these doctrinal tools—claim construction and section 112 enablement doctrine—are discretionary policy instruments rather than

25. Frank, *supra* note 17, at 147.
formalist rules. This indeterminacy is not because courts have not pronounced bright-line rules, but instead because courts have proclaimed multiple bright-line rules that contradict each other. The choice among the ostensibly bright-line rules thereby becomes the source of legal indeterminacy and judicial discretion.  

The contradiction of bright-line rules in the claim construction context is well known, as is the uncertainty caused by this doctrinal indeterminacy. The first rule of claim interpretation is that claims must be interpreted “in the light of [their] specifications.” The second rule of claim interpretation is that a court must never “import[] limitations from the specification into the claim.” Since a claim is only a set of limitations listing what features an accused product must contain to infringe, the effect of interpreting a claim by reference to the specification is necessarily to add limitations that a court otherwise would not read into the claim. In other words, if a court would reach exactly the same interpretation whether or not it considers the specification, then the first rule of claim interpretation would be meaningless. But a court reaching a different interpretation because it considered the specification thereby imports a limitation from it. The two rules thus flatly contradict each other.

A similar set of contradictory rules inflicts the Federal Circuit’s jurisprudence on section 112. At one level, the simple notion of *quid pro quo* suggests that patent scope may only cover the embodiments that the patentee contributes to the public through disclosure in the specification. Thus one line of cases requires that the claim be limited to only what is taught, or “enabled,” by the specification at the time of patent filing. On the other hand, such a formula would eviscerate patent incentives, since later-arising technology would predictably create improvements that function as close substitutes, but would not have been taught (nor could they have been taught) by the patentee at filing. Thus, another line of cases holds that

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33. *See Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186-87 (Fed. Cir. 1998) (“[T]here is sometimes a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification.”); Robert Unikel & Douglas Eveleigh, *Protecting Inventors, Not Fortune Tellers: The Available Patent Protection for After-Developed Technologies*, 34 AIPLA Q.J. 81, 88 n.9 (2006) (“How one can read claims ‘in light of the specification’ but yet avoid importing limitations from the specification has never been adequately explained, perhaps because these ostensibly contradictory tenets of claim construction cannot be reconciled.”).
34. O’Reilly v. Morse, 56 U.S. 62, 119 (1854) (“The specification of this patentee describes his invention or discovery and the manner and process of constructing and using it; and his patent . . . covers nothing more.”).
35. Sitrick v. Dreamworks, LLC, 516 F.3d 993, 999 (Fed. Cir. 2008).
the patentee may claim undisclosed and untaught embodiments, apparently without any fixed limits.\textsuperscript{37} Once again, the two lines of cases directly contradict each other.\textsuperscript{38}

Not only are there irreconcilable conflicts in doctrine, these conflicts are essential to the proper functioning of the patent system, because each line of cases has severe defects that are responsible for the contrary line.\textsuperscript{39} Limiting the patentee to the embodiments taught by the specification—either through a “soft” doctrine of creatively interpreting claim language to always be confined to specification embodiment or a “hard” doctrine of invalidating any claims that go beyond this—might be a principled implementation of the patent \textit{quid pro quo}, but it would result in the practical outcome of destroying all patent incentives. On the other hand, permitting patentees to broadly cover later-arising improvements that were not taught by the specification will result in excessive monopoly costs. Only by selectively oscillating between contradictory bright-line rules does the Federal Circuit maintain sufficient discretion to achieve some balance in patent scope. To adopt either of the absolutist rules suggested by the case law would result in a radically skewed patent system.

The point is therefore not that the conflict in doctrine is a bad thing. In fact, doctrinal conflict and hidden realism is on balance a good thing, at least in comparison to an alternative where courts mechanically abide by one extreme line or another and thus either award patents of virtually no scope or virtually infinite scope. The contradictory case law and lack of determinate mechanical outcomes does create significant uncertainty, which is usually undesirable.\textsuperscript{40} The key point remains that, even with such significant uncertainty, the current system—a very realist system that relies heavily on hidden discretion in picking and choosing among contradictory cases through implicit cost-benefit balancing—is still vastly preferable to the disastrous system that would result if courts actually practiced mechanical jurisprudence by following a single set of bright-line rules, in addition to merely preaching it.

\section*{III. Some Implications of the Realist Analysis}

\subsection*{A. Does the Federal Circuit Really Rely on Policy Balancing?}

Even accepting that judges possess discretion to choose among the rules, I cannot prove that judges are using extra-legal considerations such as economic balancing and

\textsuperscript{37} Spectra-Physics, Inc. \textit{v.} Coherent, Inc., 827 F.2d 1524, 1533 (Fed. Cir. 1987) (stating that a claim is not invalid even if it “reads on another embodiment of the invention which is inadequately disclosed”); \textit{see also} Morley Sewing Mach. Co. \textit{v.} Lancaster, 129 U.S. 263, 273 (1889) (“[A]ll subsequent machines which employ substantially the same means to accomplish the same result are infringements, although the subsequent machine may contain improvements . . . .”).

\textsuperscript{38} Kevin Emerson Collins, \textit{Enabling After-Arising Technology}, 34 J. Corp. L. 1083, 1087 (2009).


 technological context to guide their decisions. Perhaps, as Dworkin might argue, judges faced with hard legal questions are still looking to reconcile the apparently contradictory doctrine as best as they can so that later decisions “fit” with earlier decisions like a chain novel.41 Thus while demonstrating latent discretion in patent scope doctrine is sufficient to rebut the kind of mechanical formalism—“decisionmaking according to rule”—that Lee theorizes,42 it does not rebut more nuanced styles of formalism as descriptive theories of patent scope jurisprudence. And because the subjective decision-making process of judges is inscrutable, no conclusive proof can be had on this issue.

In some ways, whether judges perceive their own discretion, and how they exercise it, are questions that need not be considered in a refutation of formalism. It suffices to show that the discretion exists, so that formal doctrine is not determinate. Again, at a minimum, such a showing is sufficient to defeat the mechanical jurisprudence, rule-bound, variety of formalism.

At the same time, one observation strongly suggests that judges are in fact making pragmatic decisions according to extra-formal policy considerations, whether consciously or subconsciously. I am referring to the Federal Circuit’s rule mandating that evidence regarding the accused product be presented to it when appealing issues of textual claim interpretation,43 even though strictly speaking such evidence is completely irrelevant under any understanding of formal doctrine.

Under the formal theory of claim interpretation, the point of interpreting claims is simply to ascertain the meaning of the text.44 This is true whether that interpretation is aided by the specification or not. There is no conceivable reason that the accused product is relevant to this textual exercise, and early Federal Circuit cases stated flatly that claims are not to be interpreted in light of the accused device:

A claim is construed in the light of the claim language, the other claims, the prior art, the prosecution history, and the specification, not in light of the accused device. Contrary to what [the accused infringer] wrote the district court, claims are not construed “to cover” or “not to cover” the accused device. That procedure would make infringement a matter of judicial whim.45

41. Dworkin, supra note 18, at 229-30.
42. Lee, supra note 3; at 29.
44. Scripps Clinic & Research Found. v. Genentech, Inc., 927 F.2d 1565, 1580 (Fed. Cir. 1991) (“[T]he construction of claims is simply a way of elaborating the normally terse claim language . . . .”).
45. SRI Int’l v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1118 (Fed. Cir. 1985) (en banc) (emphasis in original).
In a string of cases beginning with *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*,46 the Federal Circuit has twisted this evidentiary rule 180 degrees, so that the procedure is now exactly what the Federal Circuit had once condemned as opening the door to “judicial whim.” Under its latest decision in this line, the appellate record must contain sufficient information for the Federal Circuit to know why the accused product would infringe under one claim construction and would not under an alternative.47 If this is not construing a claim “‘to cover’ or ‘not to cover’ the accused device,” then nothing is. The logical inference from this mandatory requirement of presenting what is, formally speaking, completely irrelevant evidence is that the judges regard such extra-formal considerations as highly relevant to their actual decision-making. And although *Wilson* is a relatively new rule, the Federal Circuit’s longstanding (but unwritten) practice of never certifying interlocutory appeals on claim construction also achieved much of the same effect of ensuring that the appellate record usually contained sufficient “context” to allow pragmatic decision-making since an appeal could only happen after a summary judgment or trial record was assembled.48

To say that the Federal Circuit is a realistic court despite its formalist rhetoric does not imply or require the judges to be acting in a massive conspiracy of deception. Certainly it does not suggest that all judges are politicians in robes, as caricatures of legal realism often suggest.49 All it requires is that the discretionary choices rely on intuition, and such intuition is frequently unperceived and unconscious. For example, suppose that a scientist invents a pill that cures AIDS, writes a specification that fully describes how to make the cure and demonstrates it is 100% effective in curing AIDS, and then writes a claim for “a pill that cures AIDS.” Suppose then a pirate makes a exact replica of the pill. Almost any judge—indeed almost any person—would agree that there is only one “right” answer to the infringement case: the pirate is clearly infringing.

At the same time, this result is only “easy” when considered *entirely* using extra-formal considerations and not using formal legal reasoning. Under the formal legal doctrine, plausible arguments can be made either way regarding whether the claim to “a pill that cures AIDS” is validly enabled. The inventor has not taught every future pill that cures AIDS, he has described only one such pill, and under *quid pro quo* line of enablement cases the claim would be invalid.50 But there is no reasonable judge who would rule in this way, and no plausible lawyer who would even advise the pirate to bring the case to litigation. For a judge to rule for the patentee requires no bad faith or disingenuousness, the judge is simply not

46. 442 F.3d 1322 (Fed. Cir. 2006).
47. Jang, 532 F.3d at 1338.
49. See Christopher Wolfe, *The Senate’s Power to Give “Advice and Consent” in Judicial Appointments*, 82 Marq. L. Rev. 355, 366 (1999) (“The predominant lens through which legal history is viewed today is legal realism, which, in varying degrees according to its more or less extreme forms, holds that judges are basically ‘politicians in robes.’”)
50. See supra text accompanying notes 34–36.
perceiving that the formal doctrine is incoherent and there are two possible answers among which he must actually choose. In other words, the judge commits the error of conflating the answer that he thinks doctrine should give with the answer he thinks the doctrine then does give.\textsuperscript{51} Such mixing of normative and descriptive implies neither that judges are stupid nor that they are deceptive, but only that they are human.

B. Does Recognizing Hidden Realism Matter?

One criticism of the foregoing analysis might be that my disagreement with Lee, Lefstin, and others who argue the Federal Circuit is formalistic is overstated or even non-existent. The Federal Circuit certainly often uses formalist rhetoric. Thus, Lee, Lefstin, and others describe what the Federal Circuit says, and I describe what the Federal Circuit does. There is no necessary inconsistency in these descriptive claims. At the same time, recognizing the Federal Circuit’s actual jurisprudence as realist carries implications regarding why that court’s rhetoric remains formalist—implications that are in tension with many conventional accounts.

To take one example, Lee argues in his article that the Federal Circuit is formalistic because it and lower court judges seek to avoid interacting with complex technology, and having hard mechanical rules triggered by such things as text avoids complex policy balancing.\textsuperscript{52} For this motivation to work—for judges actually to be able to avoid considering complex technology—the doctrine must remove discretion to consider technological context in actual practice, or at least delude lower courts into believing as much.\textsuperscript{53} If, notwithstanding the rhetoric, everyone knows that patent scope is actually discretionary, then everyone still has to consider technological context, but now additionally must dress everything up behind legalistic mumbo-jumbo. Instead of allowing judges to be cognitive misers, formalism would actually add to their workload. To recognize the Federal Circuit’s patent scope jurisprudence as heavily realist would thus cast doubt on Lee’s theory.

In a similar vein, Lefstin’s theory that the Federal Circuit’s formalism is a carryover from the Court of Custom and Patent Appeals’ project to exert control over the PTO would only work if the formal doctrine imposed practical limits on discretion, or at least convinced the lower agency that there were such limits. If everyone knew that formal doctrine was empty rhetoric and the appellate court was in fact exercising policy-based discretion,

51. \textit{See} Richard A. Posner, \textit{How Judges Think} 213 (2008) (“When a judge does bend a rule to avoid an awful result, he does not feel that he is engaging in civil disobedience; he thinks the rule does not \textit{really} compel the awful result.”).
53. Lee disclaims any claim of conscious intent on the part of Federal Circuit judges to create formalist rules in order to avoid interacting with technology. \textit{Id.} at 28-29. But this makes the aversion-to-technology theory even more implausible. It is unlikely that judges with an aversion to technology would \textit{subconsciously} create a jurisprudence that still requires them to consider technological context, but hides the inquiry so that they have less information and fewer expert witnesses to help them in the task.
then the charade would collapse. Of course, the appellate court still may assert control through de novo review, but it could have done that directly by making a naked power-grab. Presumably the point of using formalist rhetoric is to avoid the naked power-grab that would have provoked political resistance. If so, cloaking a power-grab in formalist rhetoric is useful only to the extent that the cloaking rhetoric deceives somebody. Again, if the point of formalism was to allow greater control over the PTO, it is not clear why empty formalism that is also known to be empty would help in the slightest.

The problem for both theories is that the Federal Circuit’s formalist rhetoric has not lived up to the promise of producing actual binding rules in the area of patent scope, so the rhetoric is empty. Moreover, by now, everybody involved with the patent system has been clued-in on the secret, at least to some degree. Complaints about the unpredictability and indeterminacy of patent scope doctrine are legion and exhaustively documented. If the goal of the Federal Circuit in proclaiming formalistic rules was to assert greater control over lower agencies or prevent judges from considering complex technological problems, then these are at most failed and futile exercises in wishful thinking. The cost of this failed experiment has been to drive the discretion underground, so less information is available to make considered policy judgments, while the same policy judgments must still be made.

A broader look, however, suggests an explanation for the Federal Circuit’s formalistic rhetoric that makes its continuation entirely unsurprising even if insiders of the patent system are generally aware of its emptiness, since this justification is not patent specific but is instead shared with every other court. The broader look reveals that every court regularly uses formalistic rhetoric; and indeed the more policy discretion a court has, the more the court takes pains to deny that such discretion exists. The reason is that courts perceive the need to invoke formalism to preserve their legitimacy in the eyes of the general public. This perception is fully justified, given that the public loves the idea of mechanical jurisprudence and every judicial nominee swears a blood oath before the Senate to practice it. Unlike the insiders of the patent system who have all become clued-in, the broader look reveals that every court regularly uses formalistic rhetoric; and indeed the more policy discretion a court has, the more the court takes pains to deny that such discretion exists. The reason is that courts perceive the need to invoke formalism to preserve their legitimacy in the eyes of the general public. This perception is fully justified, given that the public loves the idea of mechanical jurisprudence and every judicial nominee swears a blood oath before the Senate to practice it.


55. Posner, supra note 51, at 51 (Legalism “is proclaimed most emphatically by Justices of the Supreme Court, since the Court is in fact a political court . . . and therefore especially in need of protective coloration.”).  


The comparison with the Supreme Court raises the question of why the Federal Circuit—often seen as a non-political court that deals with a specialized and obscure area of law—still uses formalistic rhetoric when the need for “protective coloration” might seem less pressing. But this has the causation backwards. Despite the perception, intellectual property issues are in fact quite policy driven and ideologically charged: when the cases go to the Supreme Court, the “conservative” justices predictably rule in favor of intellectual property owners, and the “liberal” justices predictably rule in favor of accused infringers. It is precisely because the Federal Circuit uses so much formalistic rhetoric and protective coloration that it is still perceived as a non-political court dealing with a technocratic area, despite the reality that it is largely making ideological policy judgments like any other court. All courts have always sought to cover their policy judgments from scrutiny by hiding those policy judgments behind the perception that judges are apolitical experts. The Federal Circuit is simply more successful than other courts in this endeavor, because it can claim that the issues falling within its domain are resolved using apolitical scientific expertise in addition to apolitical legal expertise (the latter becoming progressively less persuasive with the advance of legal realism). The tactic of professional mystification remains the same; the difference is only the degree of success.

Whether preaching formalism while practicing pragmatism is “legitimate” is a question beyond the scope of this Essay. The point is only that, as a descriptive matter, this

58. See Barry Friedman, The Wages of Stealth Overruling (With Particular Attention to Miranda v. Arizona), 99 GEO. L.J. 1, 42 (2010) (arguing that the court uses “stealth overruling” to give different messages to different audiences); Antonin Scalia, Assorted Canards of Contemporary Legal Analysis, 40 Case W. Res. L. Rev. 581, 589 (1990) (“I never thought Oliver Wendell Holmes and the legal realists did us a favor by pointing out that all these legal fictions were fictions: Those judges wise enough to be trusted with the secret already knew it.”).
63. Compare Friedman, supra note 58, at 55-56 (arguing for greater transparency to facilitate public debate over constitutional meaning) with Wells, supra note 56, at 1069 (arguing that “appearance management is a vital feature of Supreme Court decisionmaking”) and Scalia, supra note 58, at 589. See also Paul Butler, When Judges Lie (and When They Should), 91 MINN. L. REV. 1785 (2007).
is something practiced by virtually every court and every judge in the United States. The common claim that the Federal Circuit is formalistic thus needs a great deal of qualification, at least in the area of patent scope. Like every other court, the Federal Circuit uses formalist rhetoric. Moreover, like many other areas of law, the formalist rhetoric cloaks what in actuality is a great deal of pragmatic discretion. Rumors of Federal Circuit exceptionalism in this regard, it would appear, have been greatly exaggerated.