

NEW YORK UNIVERSITY
JOURNAL OF INTELLECTUAL PROPERTY
AND ENTERTAINMENT LAW

VOLUME 3

SPRING 2014

NUMBER 2

RESTRUCTURING THE FEDERAL CIRCUIT

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The de facto steward of U.S. patent law is the United States Court of Appeals for the Federal Circuit, which is the exclusive appellate venue for patent cases. As the perceived importance of the patent system has steadily increased since the court's formation in 1982, the Federal Circuit's performance has been closely followed by an ever-expanding group of practitioners, academics, and other interested observers, who have not been shy about pointing out the court's deficiencies. Common complaints about the Federal Circuit's case law and the quality of its decision-making include: panel-dependency, formalism, indeterminacy, and the over- or under-enforcement of certain doctrines. The academic literature offers a variety of proposals for remedying or compensating for the Federal Circuit's perceived shortcomings, such as having specialized patent trial judges, expanding the number of circuit courts that hear patent appeals, and modifying the Federal Circuit's jurisdiction.

Compared to existing proposals, this Article takes a different approach to analyzing the Federal Circuit's problems by focusing primarily on the judges themselves and their adjudicatory environment. Lessons from cognitive psychology, management science, and the literature on judicial behavior suggest

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that many of the complaints about the court are potentially grounded in, or at least aggravated by, the expertise developed by the judges and the internal dynamics of the court, which may adversely affect the Federal Circuit's ability to reconsider its precedents in a timely manner. This Article explores how the Federal Circuit, in its current form, may have difficulty self-correcting, and proposes that a solution may lie in staffing the Federal Circuit with only district judges who serve staggered terms of limited duration.

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INTRODUCTION

Patent-related issues are becoming ever more salient in the national economy, as reflected in the intense interest in patent policy exhibited by all three branches of government in recent years.¹ No wonder, then, that the Chief Judge of

¹ For example, in 2013, the Supreme Court issued multiple patent-related decisions. *See, e.g.*, *FTC v. Actavis, Inc.*, 133 S. Ct. 2223 (2013); *Ass'n for Molecular Pathology v. Myriad Genetics*,

the United States Court of Appeals for the Federal Circuit—which has exclusive jurisdiction over patent appeals²—recently declared “We are the most important court in the United States.”³ While not everyone may agree with that sentiment,⁴ the Federal Circuit has, nevertheless, been one of the more closely-scrutinized appellate courts by virtue of its specialized jurisdiction⁵ and its mandate to create national uniformity in the adjudication of patent disputes.⁶

Of particular concern to interested observers of the Federal Circuit are certain persistent problems identified in the academic literature, such as: that its outcomes are strongly panel-dependent on certain issues;⁷ that it has formalist

Inc., 133 S. Ct. 2107 (2013); *Bowman v. Monsanto Co.*, 133 S. Ct. 1761 (2013); *Gunn v. Minton*, 133 S. Ct. 1059 (2013). In addition, members of Congress on both sides of the aisle have proposed multiple bills for tackling patent trolls. *See, e.g.*, Joe Mullin, *Wide Range of Industries Plead for Congressional Action on Patent Trolls*, ARS TECHNICA (July 17, 2013), <http://arstechnica.com/tech-policy/2013/07/wide-range-of-industries-plead-for-congressional-action-on-patent-trolls/>; Brendan Sasso, *Congress Takes Aim at ‘Patent Trolls’*, THE HILL (June 2, 2013), <http://thehill.com/blogs/hillicon-valley/technology/302881-congress-takes-aim-at-patent-trolls>. Also, the Obama administration has offered its own proposals for improving the patent system. *See, e.g.*, *FACT SHEET: Executive Actions: Answering the President’s Call to Strengthen Our Patent System and Foster Innovation*, THE WHITE HOUSE (Feb. 20, 2014), <http://www.whitehouse.gov/the-press-office/2014/02/20/fact-sheet-executive-actions-answering-president-s-call-strengthen-our-p>; *FACT SHEET: White House Task Force on High-Tech Patent Issues*, THE WHITE HOUSE (June 4, 2013), <http://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues>.

² 28 U.S.C. § 1295 (2012).

³ University of New Hampshire School of Law, *Hon. Randall R. Rader Discussing the America Invents Act* (May 21, 2012) available at <http://www.youtube.com/watch?v=dcZ7OByqJgk> at 10:02.

⁴ There is a general consensus that the Supreme Court is the most important court, followed by the U.S. Court of Appeals for the District of Columbia Circuit. *See, e.g.*, Glenn Kessler, *Is the D.C. Circuit Last in ‘Almost Every Category’?*, WASH. POST (June 6, 2013), available at http://www.washingtonpost.com/blogs/fact-checker/post/is-the-dc-circuit-last-in-almost-every-category/2013/06/05/a589b186-ce22-11e2-8f6b-67f40e176f03_blog.html (“The D.C. Circuit is generally regarded as the second most important judicial body in the United States, after the Supreme Court.”).

⁵ 28 U.S.C. § 1295(a) (2012); *see also* S. REP. NO. 97-275, at 3 (1981) (“The Court of Appeals for the Federal Circuit differs from other federal courts of appeals . . . in that its jurisdiction is defined in terms of subject matter rather than geography.”).

⁶ S. REP. NO. 97-275, at 4 (1981) (“The creation of the Court of Appeals for the Federal Circuit provides . . . a forum for appeals from throughout the country in areas of the law where Congress determines that there is special need for national uniformity.”).

⁷ *See, e.g.*, R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105, 1112 (2004) [hereinafter Wagner & Petherbridge, *Judicial Performance*] (“Our findings . . . indicate that

tendencies;⁸ that its case law leads to indeterminate results;⁹ and that it enforces certain doctrines too strictly,¹⁰ while being too lax on others.¹¹ Criticisms of the Federal Circuit are contained in a vast body of literature, and are also aired at numerous patent law-related conferences, often in the presence of one or more Federal Circuit judges in attendance. And yet, many of the complaints seemingly endure (e.g., the Federal Circuit's conflicting claim construction methodologies lead to panel-dependent outcomes¹²), and change is often substantially delayed (e.g., certain problematic rules associated with willfulness determinations were overruled after twenty years¹³), if not denied (e.g., the Federal Circuit decided to

claim construction at the Federal Circuit is panel dependent. That is, the data reveals that the composition of the panel that hears and decides an appeal has a statistically significant effect on the claim construction analysis.”).

⁸ See, e.g., John R. Thomas, *Formalism at the Federal Circuit*, 52 AM. U. L. REV. 771, 775 (2003) (“[T]he Federal Circuit’s increasing orientation towards rulemaking may negatively impact innovation policy, lead to heavy burdens upon patent administration, and fail to realize the goals of certainty and predictability so often ascribed to adjudicative rule formalism.”). But see David O. Taylor, *Formalism and Antiformalism in Patent Law Adjudication: Rules and Standards*, CONN. L. REV. (forthcoming 2013) (manuscript at 86-87), available at <http://ssrn.com/abstract=2306703>.

⁹ See, e.g., S. Jay Plager, *Challenges for Intellectual Property Law in the Twenty-First Century: Indeterminacy and Other Problems*, 2001 U. ILL. L. REV. 69, 72 (2001) (“On the doctrinal side of indeterminacy, the most obvious and well-known example in patent law is the doctrine of equivalents.”).

¹⁰ See, e.g., Janice M. Mueller, *The Evolving Application of the Written Description Requirement to Biotechnological Inventions*, 13 BERKELEY TECH. L.J. 615, 649 (1998) (“[T]he Federal Circuit has fashioned a newly heightened written description standard unique to biotechnological inventions, without meaningful explanation of policy concerns that would justify such a significant departure from earlier written description principles.”).

¹¹ See, e.g., Donald S. Chisum, *Weeds and Seeds In the Supreme Court’s Business Method Patents Decision: New Directions for Regulating Patent Scope*, 15 LEWIS & CLARK L. REV. 11, 23-24 (2011) (“[T]he Federal Circuit has tended to reject indefiniteness charges, applying its extraordinarily lenient standard which allows claims to pass muster unless they are not ‘amenable to construction’ or are ‘insolubly ambiguous.’”).

¹² Empirical analyses conducted both before and after *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), reveal that a methodological schism persists. Compare Wagner & Petherbridge, *Judicial Performance*, *supra* note 7 at 1111 (“The data reveals [sic] a sharp division within the court between two distinct methodological approaches (which we term ‘procedural’ and ‘holistic,’ respectively), each of which leads to distinct results.”), with R. Polk Wagner & Lee Petherbridge, *Did Phillips Change Anything? Empirical Analysis of the Federal Circuit’s Claim Construction Jurisprudence*, in INTELLECTUAL PROPERTY AND THE COMMON LAW 135 (S. Balganesh ed., 2012) (reporting results that suggest “virtually no change in the way that the court utilized the methodological approach to claim construction, even after the en banc treatment of the issue in *Phillips*”).

¹³ See *infra* notes 119-121 and accompanying text.

reconsider the *de novo* standard of review for claim construction¹⁴—after fifteen years of complaints from not only commentators,¹⁵ but also district judges,¹⁶ and its own members¹⁷—only to reaffirm it¹⁸).

In light of these criticisms, one question that arises is whether the Federal Circuit has difficulty reconsidering and correcting the suboptimalities in its case law in a timely manner, whether by clarifying, limiting, reconciling, or overruling precedents that have become problematic.¹⁹ Because it is effectively the court of last resort in patent cases, given the rarity of Supreme Court review,²⁰ *self-*

¹⁴ *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448 (Fed. Cir. 1998) (en banc).

¹⁵ Some of the earliest commentary published shortly after *Cybor* was issued in 1998 was highly critical. *See, e.g.*, Gary M. Hoffman & Herbert V. Kerner, *Federal Circuit Tries to Clarify Markman—Does Cybor Accomplish It?* INTELL. PROP. TODAY 42 (June 1998) (observing that, after *Cybor*, “at each appeal [claim construction] is reopened like it was never decided before. This whole process could potentially extend the time to resolve a patent case by years without adding much predictability or consistency to the result”).

¹⁶ Symposium, *A Panel Discussion: Claim Construction from the Perspective of the District Judge*, 54 CASE W. RES. L. REV. 671, 679 (2004) (statement of Judge Saris) (“There has to be a softening of the *de novo* review in claim construction. . . . [T]here needs to be more deference for two reasons: to create more predictability, and to bring the standard in line with other areas of the law that recognize the trial judge’s unique role.”).

¹⁷ *See, e.g.*, *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 469 F.3d 1039, 1046 (Fed. Cir. 2006) (Moore, J., dissenting from denial of rehearing en banc) (“I believe this court should have taken this case en banc to reconsider its position on deference to district court claim construction articulated in *Cybor* . . . ”); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 (Fed. Cir. 2005) (Mayer, J., dissenting) (“Now more than ever I am convinced of the futility, indeed the absurdity, of this court’s persistence in adhering to the falsehood that claim construction is a matter of law devoid of any factual component.”).

¹⁸ *Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 2014 U.S. App. LEXIS 3176, at *7 (Feb. 21, 2014) (en banc) (“[W]e apply the principles of *stare decisis*, and confirm the *Cybor* standard of *de novo* review of claim construction, whereby the scope of the patent grant is reviewed as a matter of law.”).

¹⁹ Cf. John M. Golden, *The Supreme Court as “Prime Percolator”: A Prescription for Appellate Review of Questions in Patent Law*, 56 UCLA L. REV. 657, 686 (2009) (observing that “[t]he most robust criticisms of the [Federal] Circuit, including charges that the Circuit’s pre-KSR jurisprudence interpreted nonobviousness too weakly or that the Circuit’s jurisprudence had become too reflexively formal, seem primarily to reflect a contention that the Circuit has substantively erred and, worse, persisted in error . . . ”).

²⁰ The Supreme Court grants certiorari in about 1% of cases per term. *The Justices’ Caseload*, SUPREME COURT OF THE UNITED STATES, available at <http://www.supremecourt.gov/about/justicecaseload.aspx> (last visited Mar. 30, 2014) (“The [Supreme] Court’s caseload has increased steadily to a current total of more than 10,000 cases on the docket per Term. . . . Plenary review, with oral arguments by attorneys, is granted in about 100 cases per Term.”).

correction by the Federal Circuit is critical. This, coupled with the extreme improbability of timely Congressional action,²¹ creates a situation where the primary responsibility “for assuring that gaps are filled, uncertainties resolved, and stupidities corrected”²² in patent law falls squarely on the Federal Circuit. Otherwise, without periodic self-correction, Federal Circuit precedents may ossify in a suboptimal state, which, as John Golden has observed, may be the real danger posed by a centralized appellate scheme for patent cases.²³

Compared to the regional circuits, the Federal Circuit likely requires a faster, more robust mechanism for making corrections to a body of precedent, for two reasons. *First*, patent law must be able to keep up with advances in technology.²⁴ *Second*, as the exclusive appellate venue for patent cases, the Federal Circuit does not experience the type of corrective case law “percolation” that occurs among the regional circuits.²⁵ It is possible then, that suboptimal case law might endure more readily at the Federal Circuit, when, at the same time, the need to make timely adjustments to precedent may be more pressing in light of the issues raised by new technologies.

While a variety of solutions have been proposed in the literature that seek to compensate for or otherwise mitigate the Federal Circuit’s shortcomings,²⁶ scant attention has been paid to the cognitive and situational elements that define the internal adjudicatory environment within that court. As such, this Article undertakes an exploration of the behavioral factors that may underlie the various complaints about the Federal Circuit, with a specific focus on the cognitive and

²¹ See, e.g., Jennifer Steinhauer, *Congress Nearing End of Session Where Partisan Input Impeded Output*, N.Y. TIMES (Sept. 18, 2012), available at <http://www.nytimes.com/2012/09/19/us/politics/congress-nears-end-of-least-productive-session.html> (“The 112th Congress is set to enter the Congressional record books as the least productive body in a generation, passing a mere 173 public laws as of last month. That was well below the 906 enacted . . . by the body President Harry S. Truman referred to as the ‘do-nothing’ Congress . . . ”).

²² Paul M. Bator, *What is Wrong with the Supreme Court?*, 51 U. PIT. L. REV. 673, 680 (1990).

²³ Golden, *supra* note 19, at 701 (“[C]entralized review [of patent law] by the Federal Circuit means that the real danger is ossification . . . ”).

²⁴ See Rochelle Cooper Dreyfuss, *In Search of Institutional Identity: The Federal Circuit Comes of Age*, 23 BERKELEY TECH. L.J. 787, 827 (2008) [hereinafter Dreyfuss, *Institutional Identity*] (observing that the Federal Circuit has been deficient in “using its expertise to keep patent law responsive to changing technological facts and emerging national interests”).

²⁵ Craig Allen Nard & John F. Duffy, *Rethinking Patent Law’s Uniformity Principle*, 101 Nw. U. L. REV. 1619, 1622 (2007).

²⁶ See *infra* Part I.B.

situational elements that allow suboptimal precedents to be generated and maintained. In doing so, this Article draws lessons not only from the literature on judicial behavior, but also from cognitive psychology and management science—in particular, organizational behavior²⁷—in evaluating the difficulty of self-correction. As described in greater detail *infra*,²⁸ this analytical path suggests that a potential solution may lie in changing the *organizational structure* of the Federal Circuit to mitigate the behavioral elements that may negatively affect the court's ability to take timely actions to refine or otherwise repair suboptimal case law.²⁹

When the complaints about the Federal Circuit are viewed through a cognitive and situational lens, two possibilities emerge. *First*, with certain precedents, some judges may simply fail to recognize the need to take corrective action. As discussed in greater detail *infra*,³⁰ a Federal Circuit judge's inability to recognize the existence of a problem could be an artifact of his or her expertise. Specifically, a phenomenon known in the cognitive psychology literature as the “curse of expertise”³¹ may prevent experts (i.e., Federal Circuit judges)³² from properly weighing criticism from others, and may also impair their ability to accurately assess the difficulties encountered by non-experts (e.g., district judges).³³ *Second*, with other precedents, some Federal Circuit judges may be fully

²⁷ Organizational behavior is “primarily concerned with the psychosocial, interpersonal, and behavioral dynamics in organizations.” Debra L. Nelson & James Campbell Quick, *UNDERSTANDING ORGANIZATIONAL BEHAVIOR* 4 (3d ed. 2008). “Organizational behavior is a blended discipline” that draws from psychology, sociology, engineering, anthropology, management, and medicine. *Id.* at 5. The federal judiciary, while not a company, is a type of organization, such that the literature pertaining to improving organizational performance might contain valuable lessons for the courts.

²⁸ See *infra* Part III.

²⁹ Cf. Chip Heath, Richard P. Larrick, & Joshua Klayman. *Cognitive Repairs: How Organizational Practices Can Compensate for Individual Shortcomings*, 20 *REV. ORGANIZATIONAL BEHAVIOR* 1, 3 (1998) (discussing how organizational practices can repair or mitigate cognitive shortcomings of individuals within an organization).

³⁰ See *infra* Part II.A.

³¹ See *infra* note 93 and accompanying text.

³² The high concentration of patent cases on their docket allows judges on the Federal Circuit to develop expertise in patent law. For example, in 2012, patent-related matters constituted 45% of the Federal Circuit’s docket. *Appeals Filed, by Category, FY 2012*, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT, available at http://www.cafc.uscourts.gov/images/stories/the-court/statistics/Caseload_by_Category_Appeals_Filed_2012.pdf (last visited Mar. 30, 2014).

³³ Patent cases constitute a small fraction of the docket of a typical district judge. For example, in the 12-month period ending March 31, 2012, 285,260 civil cases were filed in the federal district courts, of which 4,446 or 1.6% were patent cases. *Caseload Statistics 2012, Table C-2, U.S. District Courts—Civil Cases Commenced, by Basis of Jurisdiction and Nature of Suit*,

aware that problems do exist for which correction is necessary, but the court, as an institution, is unable to undertake timely remedial action. This second problem, as explored *infra*,³⁴ is known in the management science literature as the “knowing-doing gap,”³⁵ which may arise from the situational dynamics among the Federal Circuit judges.

Taken together, the curse of expertise and the knowing-doing gap may impair the Federal Circuit’s ability to address the suboptimalities in its case law in a timely manner because the former may prevent the court from realizing that a problem exists, while the latter may hinder the court from taking action on the problems that it is aware of.

This Article contributes to the literature on the institutional analysis of the Federal Circuit in two ways: *First*, it combines lessons from the literature on judicial behavior, cognitive psychology, and management science to evaluate possible behavioral explanations for how and why the Federal Circuit generates or maintains suboptimal precedent. *Second*, based on this behavioral analysis, a proposal is introduced that may improve the Federal Circuit’s ability to identify and self-correct suboptimal precedents: staffing the court with district judges who serve staggered terms of limited duration.

In essence, by changing the organizational structure of the Federal Circuit, it may be possible to compensate for, or at least mitigate, some of the cognitive biases and situational influences³⁶ within the court’s deliberative environment that may inhibit timely self-correction. This proposal focuses on a beneficial effect of regular changes in personnel that has not been fully appreciated in the literature relating to judicial term limits and rotations, which tends to concentrate on the Supreme Court³⁷ and issues relating to democratic accountability, the politicization

During the 12-Month Periods Ending March 31, 2011 and 2012, U.S. COURTS, available at <http://www.uscourts.gov/Viewer.aspx?doc=/uscourts/Statistics/FederalJudicialCaseloadStatistics/2012/tables/C02Mar12.pdf> (last visited Mar. 30, 2014).

³⁴ See *infra* Part II.B.

³⁵ See *infra* note 123 and accompanying text.

³⁶ See *supra* note 29 and accompanying text.

³⁷ See, e.g., Steven G. Calabresi & James Lindgren, *Term Limits for the Supreme Court: Life Tenure Reconsidered*, 29 HARV. J.L. & PUB. POL’Y 769, 772 (2006) (proposing staggered, eighteen-year terms for Supreme Court justices); John O. McGinnis, *Justice Without Justices*, 16 CONST. COMMENTARY 541, 546 (1999) (suggesting term limit of two years for a Supreme Court staffed with rotating judges from inferior courts); Symposium, *Term Limits For Judges?*, 13 J.L. & POL. 669, 687 (1997) (statement of Judge Laurence H. Silberman) (suggesting five-year terms for Supreme Court Justices); L.A. Powe, Jr., *Old People and Good Behavior*, 12 CONST. COMMENTARY 195, 196 (1995) (“Life tenure is the Framers’ greatest lasting mistake.”); Ahkil

of nominations, and mental decrepitude,³⁸ rather than the ability of an intermediate appellate tribunal to self-correct.

This Article proceeds in four parts. Part I describes the Federal Circuit's internal mechanisms for self-correction, and also summarizes several existing proposals in the literature that endeavor to remedy or compensate for the Federal Circuit's deficiencies. Part II identifies potential cognitive and situational barriers to timely self-correction at the Federal Circuit—namely, the curse of expertise and the knowing-doing gap. Part III analyzes how the cognitive and situational barriers identified in Part II may be overcome by staffing the Federal Circuit with district judges who serve staggered terms of limited duration. Part IV addresses various objections and concerns about the proposal, and is followed by a brief conclusion.

I THE CURRENT STATE

A. Internal Mechanisms for Quality Control

As an institution, the Federal Circuit has several internal “quality control” mechanisms for precedential opinions. They generally fall into two categories: before issuance and after issuance.

Reed Amar & Steven G. Calabresi, *Term Limits for the High Court*, WASH. POST (Aug. 9, 2002) (“Congress should try to nudge the justices toward a better model of judicial independence based on fixed judicial terms.”). *But see* Ward Farnsworth, *The Regulation of Turnover on the Supreme Court*, 2005 U. ILL. L. REV. 407, 407-08 (defending life tenure at Supreme Court, while proposing age limit); David R. Stras & Ryan W. Scott, *Retaining Life Tenure: The Case for the Golden Parachute*, 83 WASH. U. L.Q. 1397, 1397-98 (2005) (arguing that life tenure should be retained, while proposing incentives for early retirement).

A few commentators have extended the case for term limits to the circuit court level on the basis that, given the rarity of Supreme Court review, the court of last resort in most cases is the circuit court. *See, e.g.*, Michael J. Mazza, *A New Look at an Old Debate: Life Tenure and the Article III Judge*, 39 GONZ. L. REV. 131, 133 (2003); Paul D. Carrington, *Restoring Vitality to State and Local Politics by Correcting the Excessive Independence of the Supreme Court*, 50 ALA. L. REV. 397, 455 & n.300 (1999).

³⁸ *See, e.g.*, Calabresi & Lindgren, *supra* note 37, at 809 (“[L]ater retirement and less frequent vacancies . . . have three primary consequences for the current state of the judiciary: the [Supreme] Court’s resistance to democratic accountability, the increased politicization of the judicial confirmation process, and the potential for greater mental decrepitude of those remaining too long on the bench.”); Stras & Scott, *supra* note 37, at 1422 (noting that “the three most powerful critiques of life tenure” are directed to concerns about “democratic accountability,” “strategic retirement behavior,” and “mental or physical infirmity”).

1. Before Issuance: Review of Precedential Opinions

Shortly after the Federal Circuit was formed, its first Chief Judge, Howard Markey,³⁹ and Judge Giles Rich, one of the drafters of the 1952 Patent Act,⁴⁰ touted the adoption of two procedures designed to help the newly-formed appeals court fulfill its mandate of bringing uniformity to patent law. *First*, every draft precedential opinion would be circulated to the entire court for several working days in order to allow the non-panel judges to weigh in and provide comments prior to issuance.⁴¹ (Presently, the review period is ten working days.⁴²) *Second*, the Federal Circuit's internal administrative departments would include an office of the "Senior Technical Assistant" (STA),⁴³ whose staff members are charged with analyzing draft precedential opinions during the review period and circulating memos to the entire court that highlight potential conflicts with existing case law.⁴⁴

While these two mechanisms for pre-issuance correction of precedential opinions have endured throughout the Federal Circuit's existence, the persistent complaints about the court suggest that Judges Markey and Rich might have

³⁹ Patricia Sullivan, *Howard Markey: First Chief Judge of Federal Circuit Appellate Court*, WASH. POST (May 5, 2006), available at <http://www.washingtonpost.com/wp-dyn/content/article/2006/05/04/AR2006050402155.html>.

⁴⁰ Jon Thurber, *Judge Giles Rich: Patent Law Authority*, L.A. TIMES (June 14, 1999), available at <http://articles.latimes.com/1999/jun/14/news/mn-46460>.

⁴¹ *First Annual Judicial Conference of the United States Court of Appeals for the Federal Circuit*, 100 F.R.D. 499, 502 (1983) (statement of Chief Judge Howard T. Markey) ("[W]hen a panel has completed work on an opinion and it is ready to issue, that opinion is circulated for seven days to all the non-panel members of the Court."); *see also* Giles S. Rich, *Columbia Law School Julius Silver Program in Law, Science & Technology - Inaugural Lecture*, 68 J. PAT. & TRADEMARK OFF. SOC'Y 604, 617 (1986) ("When the panelists are finally finished, the opinion or opinions are then circulated to the entire court for 7 days (14 in summer), every judge having a chance to criticize."). In recent years, the number of review days has increased to ten working days. *Internal Operating Procedures*, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT #10, ¶5 (July 7, 2010), available at <http://www.cafc.uscourts.gov/rules-of-practice/internal-operating-procedures.html> [hereinafter IOP].

⁴² IOP, *supra* note 41, at #10, ¶5 (July 7, 2010).

⁴³ 28 U.S.C. § 715(c) & (d) (2012) (providing specific authorization for the position of "Senior Technical Assistant" at the Federal Circuit).

⁴⁴ *First Annual Judicial Conference*, 100 F.R.D. at 502 (statement of Chief Judge Howard T. Markey) ("[O]ur Senior Technical Assistant and his assistant have a major duty of reading every opinion before it goes out and comparing it with earlier decisions. If they even think there even might be a conflict, they notify the judges immediately."); *see also* Rich, *supra* note 41 at 617 (noting that the Senior Technical Advisor is tasked with "commenting on any suspected departure from precedent or suggesting additional citations" for precedential opinions that are circulated prior to issuance).

overestimated their effectiveness. The utility of circulating draft precedential opinions to the entire court is dependent on the willingness of the non-panel judges to closely monitor them, provide substantive comments, and, if necessary, issue “hold sheets” that prevent their issuance until substantive concerns are addressed.⁴⁵ At the same time, the receptiveness of the authoring judge and the other panel members to suggestions from the rest of the court may also be a significant factor. However, persistent concerns about panel-dependent outcomes⁴⁶ and the existence of divergent lines of precedent⁴⁷ suggest that the internal circulation of draft opinions may be a weak mechanism for self-correction.

As for the STA’s memos analyzing draft opinions for conflicting precedent, they are merely advisory, and, for that reason, it is possible that some Federal Circuit judges disregard them.⁴⁸ Notably, the STA’s conflicts check procedure has actually been *scaled back* in recent years: when the STA’s office was first established at the Federal Circuit, it reviewed *every* draft precedential opinion for potential conflicts prior to issuance;⁴⁹ however, on July 7, 2010, the Federal Circuit’s Internal Operating Procedures (IOPs) were changed so that the STA reviews a draft precedential opinion for conflicts *only if requested*.⁵⁰ The Federal Circuit’s decision to scale back the original role of the STA’s office is puzzling, if not troubling, especially when divergent lines of precedent still persist—and, in some instances, have emerged after July 7, 2010, on issues such as patentable

⁴⁵ At the Federal Circuit, a non-panel judge may prevent the issuance of an opinion by submitting a “hold sheet.” IOP, *supra* note 41, at #10, ¶5 (“A nonpanel member judge in regular active service may submit a hold sheet pending a request for an en banc poll. Absent transmittal of a hold sheet or a request for an en banc poll during the circulation period, the authoring judge sends the opinion . . . to the clerk for issuance.”).

⁴⁶ See *supra* note 7 and accompanying text.

⁴⁷ See generally Matthew F. Weil & William C. Rookridge, *Stare Un-Decisis: The Sometimes Rough Treatment of Precedent in Federal Circuit Decision-Making*, 80 J. PAT. & TRADEMARK OFF. SOC’Y 791 (1998) [hereinafter Weil & Rookridge, *Stare Un-Decisis*] (describing various ways in which the Federal Circuit generates conflicting precedent).

⁴⁸ See William C. Rookridge & Matthew F. Weil, *En Banc Review, Horror Pleni, and the Resolution of Patent Law Conflicts*, 40 SANTA CLARA L. REV. 787, 808 n.92 (2000) [hereinafter Rookridge & Weil, *En Banc Review*] (“It seems likely that these conflicts [in precedent] can arise when judges ignore the efforts of the Senior Technical Assistant.”).

⁴⁹ *First Annual Judicial Conference*, 100 F.R.D. at 502 (statement of Chief Judge Howard T. Markey) (noting that the Senior Technical Assistant has “a major duty of reading every opinion before it goes out”).

⁵⁰ Compare IOP, *supra* note 41, at #10 ¶5 (July 7, 2010), with *Internal Operating Procedures*, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT #10, ¶5 (Nov. 14, 2008) (copy on file with author).

subject matter⁵¹—and decisional disagreement at the court is becoming more severe.⁵²

2. After Issuance: The *En Banc* Process

Once issued, precedential panel decisions may be overruled only by an en banc court.⁵³ However, the en banc process is seldom invoked: according to an empirical study by Christopher Cotropia, the Federal Circuit's en banc rate is relatively low.⁵⁴ This is unsurprising as the en banc process is viewed by judges as a time-consuming, labor-intensive endeavor⁵⁵ whose uncertain outcomes might not be worth the cost of disturbing the collegial atmosphere that courts strive to maintain.⁵⁶ As a result, an extended period of time may elapse before the “right”

⁵¹ See, e.g., *CLS Bank Int'l v. Alice Corp.*, 717 F.3d 1269 (Fed. Cir. 2013) (en banc); see generally Dina Roumiantseva, Note, *The Eye of the Storm: Software Patents and the Abstract Idea Doctrine in CLS Bank v. Alice*, 28 BERKELEY TECH. L.J. 569, 571 (2013) (examining “the current split regarding software patentability in the Federal Circuit”).

⁵² Jason Rantanen & Lee Petherbridge, *Disuniformity* (unpublished manuscript) at 13, available at <http://ssrn.com/abstract=2351993> (November 10, 2013) (reporting data suggesting that “Federal Circuit panels are formally disagreeing with increasing frequency about the content of patent law”).

⁵³ IOP, *supra* note 41, at #13, ¶1 (Nov. 14, 2008) (“En banc consideration is required to overrule a prior holding of this or a predecessor court expressed in an opinion having precedential status.”).

⁵⁴ Christopher A. Cotropia, *Determining Uniformity Within the Federal Circuit by Measuring Dissent and En Banc Review*, 43 LOY. L.A. L. REV. 801, 816-17 (2010) (reporting that en banc opinions constituted 0.18% of Federal Circuit opinions issued during 1998 through 2009).

⁵⁵ Douglas H. Ginsburg & Donald Falk, *The Court En Banc: 1981-1990*, 59 GEO. WASH. L. REV. 1008, 1020 (1991) (observing that “one case reheard en banc consumes as much of the court’s resources as five or six cases heard by a panel”).

⁵⁶ Judge Patricia Wald of the D.C. Circuit describes the dynamics that militate against en banc consideration, as follows:

Perhaps the most effective antidote against profligate en bancing is the very human desire of judges to coexist in peace. Apart from the inordinate demands on the time and resources of judges, en bancs heighten tensions on the court. No judge likes to have her opinions en banced, and although she may expect it from those with whom she frequently disagrees, she may resent it from usual allies. Some judges do indeed regard a vote in favor of en bancing *their* cases as tantamount to betrayal. Especially on a divided court, we are thus tempted occasionally to rationalize voting *against* an en banc of one of our colleagues’s opinions for purposes of collegiality (“It’s not that important, I can distinguish the opinion in the future if I have to”).

Patricia M. Wald, *Changing Course: The Use of Precedent in the District of Columbia Circuit*, 34 CLEV. ST. L. REV. 477, 488 (1986) [hereinafter Wald, *Changing Course*] (emphases in original); see also Douglas H. Ginsburg & Brian M. Boynton, *The Court En Banc: 1991-2002*,

case appears for which a majority of judges would agree is worth the hassle of en banc consideration. In some instances, a change in the composition of the court may be necessary in order for an issue to be ever considered en banc.⁵⁷ And when en banc review finally does occur, there is no guarantee that the outcome will necessarily improve the situation: the en banc court might simply reaffirm the status quo,⁵⁸ take the precedent in a more problematic direction,⁵⁹ or create further uncertainty by issuing a highly fractured decision with no majority opinion.⁶⁰

B. Existing Proposals in the Literature

The literature offers a variety of proposals for remedying or compensating for the deficiencies in the Federal Circuit's case law and its decision-making process.

One popular proposal is to develop patent law expertise at the trial level⁶¹ such as by establishing specialized trial courts⁶² or by changing the venue rules so

⁷⁰ GEO. WASH. L. REV. 259, 260 (2002) (observing that decline in D.C. Circuit's en banc rate may be attributable in part to collegiality and judges' "keen[] sense of the high costs and uncertain benefits of rehearing a case en banc").

⁵⁷ For example, in early 2013, when the Federal Circuit had only nine active judges—such that only five votes would be needed for en banc review—the court issued an en banc order in *Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 500 F. App'x 951 (Fed. Cir. 2013), to reconsider the rule in *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448 (Fed. Cir. 1998) (en banc), that established the de novo standard of review of claim construction rulings.

⁵⁸ See, e.g., *Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 2014 U.S. App. LEXIS 3176 (Feb. 21, 2014) (en banc) (reaffirming the de novo standard of review for claim construction issues); *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In dissent, Judge Mayer summarized the *Phillips* en banc opinion as follows: "[A]fter proposing no fewer than seven questions, receiving more than thirty amici curiae briefs, and whipping the bar into a frenzy of expectation, we say nothing new, but merely restate what has become the practice over the last ten years" *Id.* at 1330 (Mayer, J., dissenting).

⁵⁹ See, e.g., *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012) (en banc). According to Judge Linn, the majority impermissibly "broaden[ed] the doctrine of inducement, such that no predicate act of direct infringement is required." *Id.* at 1342 (Linn, J., dissenting).

⁶⁰ See, e.g., *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269 (Fed. Cir. 2013) (en banc).

⁶¹ See, e.g., Rochelle Cooper Dreyfuss, *The Federal Circuit: A Continuing Experiment in Specialization*, 54 CASE W. RES. L. REV. 769, 798-99 (2004) [hereinafter Dreyfuss, *Continuing Experiment*].

⁶² See, e.g., Jay P. Kesan & Gwendolyn G. Ball, *Judicial Experience and the Efficiency and Accuracy of Patent Adjudication: An Empirical Analysis of the Case for a Specialized Patent Trial Court*, 24 HARV. J.L. & TECH. 393 (2011); Arti K. Rai, *Specialized Trial Courts: Concentrating Expertise on Fact*, 17 BERKELEY TECH. L.J. 877 (2002); John B. Pegram, *Should*

as to concentrate the filing of patent cases to certain districts.⁶³ This proposal has largely come to fruition in the form of the “Patent Pilot Program,”⁶⁴ which helps district judges cultivate patent law expertise through the reassignment of patent cases from judges who seek to avoid them to judges who are interested in hearing more of them.⁶⁵ However, empirical support for the expected benefits⁶⁶ of enhancing trial judge expertise is, at best, mixed.⁶⁷ Furthermore, specialization at both the trial and appellate levels could exacerbate the Federal Circuit’s “exceptionalist” approach to patent law.⁶⁸

Rather than focusing on the trial courts, some commentators have questioned the unitary appellate regime for patent cases. Craig Nard and John Duffy propose expanding the number of circuit courts that hear patent appeals, on the theory that “a polycentric, competitive appellate structure” may facilitate doctrinal development through incremental innovation and experimentation, as well as provide clearer signals to the Supreme Court to intervene.⁶⁹ Judge Diane Wood of the U.S. Court of Appeals for the Seventh Circuit has expressed support for a

There Be a U.S. Trial Court with a Specialization in Patent Litigation?, 82 J. PAT. & TRADEMARK OFF. SOC’Y 765 (2000).

⁶³ See, e.g., Jeanne C. Fromer, *Patentography*, 85 N.Y.U. L. REV. 1444, 1447 (2010) (“[C]onstraining venue . . . would improve district courts’ decisionmaking and encourage the Federal Circuit to defer more appropriately to district courts’ factual findings.”).

⁶⁴ Pub. L. No. 111-349, 124 Stat. 3674 (2011) (codified at 28 U.S.C. § 137 note).

⁶⁵ *District Courts Selected for Patent Pilot Program*, U.S. COURTS (June 7, 2011), http://www.uscourts.gov/News/NewsView/11-06-07/District_Courts_Selected_for_Patent_Pilot_Program.aspx.

⁶⁶ See, e.g., Kesan & Ball, *supra* note 62, at 423 (“One of the principal arguments for the creation of a patent trial court is that it would resolve cases more efficiently, thereby saving time and money for both litigants and the court system.”); Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. Rev. 889, 932 (2001) (“[A] specialized tribunal would develop expertise in patent law and the resolution of patent cases, increasing its accuracy and efficiency at resolving these cases.”).

⁶⁷ Compare David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223, 258-59 (2008) (reporting results from empirical study suggesting that “[t]here is no compelling evidence that trial court judges are improving with experience on claim construction”), with Kesan & Ball, *supra* note 62, at 444 (reporting results of empirical study suggesting that “the impact on the efficiency and accuracy of patent adjudication provides a real but modest case for the development of patent-specific judicial human capital at the trial level”).

⁶⁸ Dreyfuss, *Institutional Identity*, *supra* note 24, at 804 (“Two levels of specialized courts would . . . likely produce law that is substantially out of the mainstream.”); see also Paul R. Gugliuzza, *The Federal Circuit as a Federal Court*, 54 WM. & MARY L. REV. 1791, 1817-18 (2013) [hereinafter Gugliuzza, *Federal Circuit*] (discussing Federal Circuit exceptionalism).

⁶⁹ Nard & Duffy, *supra* note 25, at 1651-55.

similar proposal.⁷⁰ As some commentators have observed, however, it is unclear whether inter-circuit percolation is likely to provide benefits adequate to offset the loss of uniformity,⁷¹ especially in the event the other circuit courts find it expedient to defer to the expertise of the Federal Circuit by adopting its case law.⁷² In addition, with the enactment of the Leahy-Smith America Invents Act,⁷³ Congress has reaffirmed its commitment to a unitary appellate regime in patent cases by abrogating *Holmes Group, Inc. v. Vornado Air Circulation Systems, Inc.*⁷⁴ and channeling all patent-related appeals to the Federal Circuit, including those appeals raising a patent issue that was introduced only through a counterclaim.⁷⁵

Others have considered whether the scope of the Federal Circuit's jurisdiction might be a source of its dysfunction. Paul Gugliuzza, for example, proposes modifying the Federal Circuit's jurisdiction so that it has a mix of cases that is closer to that of the regional circuits,⁷⁶ under the theory that Federal Circuit judges who are exposed to a more generalized docket would be "more policy conscious, less formalist, and, ideally, more responsive to the different innovation dynamics present in different industries."⁷⁷ This proposal presupposes that the adjudicatory style of individual Federal Circuit judges may change if their

⁷⁰ Diane P. Wood, *Keynote Address: Is it Time to Abolish the Federal Circuit's Exclusive Jurisdiction in Patent Cases?*, 13 CHI.-KENT J. INTELL. PROP. 1 (2013), available at http://studentorgs.kentlaw.iit.edu/ckjip/?attachment_id=1076.

⁷¹ Golden, *supra* note 19, at 661 (observing that Nard and Duffy's "solution threatens to sacrifice substantial benefits of unified review under the Federal Circuit while providing little assurance of adequate percolation").

⁷² Dreyfuss, *Institutional Identity*, *supra* note 24, at 811 (observing that "Nard and Duffy's solution may produce fewer splits and less dialogue than they expect" because the non-specialized courts may "sav[e] resources by simply adopting the Federal Circuit's law based on its presumed expertise, rather than because they are persuaded the Federal Circuit's views are accurate").

⁷³ Pub. L. No. 112-029, 125 Stat. 284 (2011).

⁷⁴ 535 U.S. 826, 833-34 (2002) (holding that Federal Circuit's jurisdiction is limited to cases where patent claim appears on the face of the plaintiff's well-pleaded complaint, and not where patent claim exists only in counterclaim).

⁷⁵ Leahy-Smith America Invents Act, Pub. L. No. 112-029, § 19, 125 Stat. 284, 331-32 (2011) (codified at 28 U.S.C. § 1295(a)(1), as amended). See generally Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. B.J. 539, 539-40 (2012) (footnotes omitted) ("Section 19 of the AIA, at subsections (a) through (c), enacts the so-called *Holmes Group* fix. These provisions . . . extend the Federal Circuit's appellate jurisdiction to compulsory patent and plant-variety-protection counterclaims, thereby abrogating *Holmes Group, Inc. v. Vornado Air Circulation Systems, Inc.* . . .").

⁷⁶ Paul R. Gugliuzza, *Rethinking Federal Circuit Jurisdiction*, 100 GEO. L.J. 1437, 1498-99 (2012) [hereinafter Gugliuzza, *Rethinking*].

⁷⁷ *Id.* at 1499.

knowledge of generalist legal principles is enhanced. As will be discussed later, a substantial part of the problem with the Federal Circuit may not only be a lack of certain knowledge, but also the lack of the will to act on that knowledge.⁷⁸

A common limitation in the aforementioned proposals is that they may not be adequate to counteract the primary pathology underlying the complaints about the Federal Circuit, which, as identified by John Golden, is the ossification of precedent⁷⁹ resulting in “suboptimal legal equilibria.”⁸⁰ Golden’s solution to the ossification problem requires the Supreme Court to assume the role of “prime percolator,” which periodically grants review to disturb those suboptimal Federal Circuit precedents that have “frozen legal doctrine either too quickly or for too long.”⁸¹ In addition, Golden suggests that the Federal Circuit itself can further promote percolation by not writing or reading panel opinions unnecessarily broadly, and granting *en banc* review when precedent has reached a “suboptimal doctrinal equilibrium.”⁸²

There are several limitations to Golden’s proposals. *First*, given the overall rarity of certiorari grants,⁸³ and the limitations of Federal Circuit dissents as signaling devices,⁸⁴ the Supreme Court’s execution of its percolation function may not be timely and frequent enough to materially improve the performance of the Federal Circuit beyond its current state—especially where the Federal Circuit views itself as the “expert,” and, as a result, may be unreceptive to suggestions from non-experts, even those located in a superior position in the judicial hierarchy.⁸⁵ *Second*, it is unclear how the tendency of some Federal Circuit judges to write (or interpret) broadly may be effectively restrained. A “maximalist”-style⁸⁶

⁷⁸ See *infra* Part II.B.

⁷⁹ Golden, *supra* note 19, at 701.

⁸⁰ *Id.* at 720; *see also id.* at 673 (observing that the Federal Circuit in its current operation may “be more likely to produce a suboptimal body of legal doctrine that sticks — that is unlikely to be abandoned or seriously questioned, even after its negative consequences have become clear”).

⁸¹ *Id.* at 662.

⁸² *Id.* at 717.

⁸³ See *supra* note 20.

⁸⁴ See Dreyfuss, *Institutional Identity*, *supra* note 24, at 810 (“[T]he judges on the Federal Circuit have become quite adept at writing dissents signaling the need for Supreme Court attention Signaling for Supreme Court review can only work a few times before collegial sentiments within the appellate court fray or the interest of the [Supreme] Court wanes.”).

⁸⁵ See *infra* notes 111-113 and accompanying text.

⁸⁶ Cass R. Sunstein, ONE CASE AT A TIME: JUDICIAL MINIMALISM ON THE SUPREME COURT 9-10 (1999) (defining judicial “maximalism” as “a shorthand reference for those who seek to

of opinion-writing that makes broad, sweeping pronouncements could be viewed by some Federal Circuit judges as wholly appropriate, if not obligatory, for a court whose primary mission is to provide uniform guidance on patent law.⁸⁷ Furthermore, by invoking judicial efficiency concerns, the Federal Circuit has, on occasion, decided issues beyond those needed to dispose of the specific case at hand, such as construing claim terms that are not necessary to the judgment.⁸⁸ Finally, as discussed previously, going *en banc* is a labor-intensive and unpredictable process,⁸⁹ such that case law may be stuck in a suboptimal legal equilibrium until the “right” case comes along or if the composition of the court changes.⁹⁰

At a high level, the above-mentioned proposals highlight different approaches to improving the operation of the Federal Circuit. What is missing, however, is an approach that focuses on the behavioral elements that may inhibit timely reconsideration of suboptimal precedents. To this end, the next section explores some of the behavioral elements that may influence how Federal Circuit case law is produced.

II

THE COGNITIVE AND SITUATIONAL BARRIERS TO SELF-CORRECTION

This section introduces two theories directed to the behavioral elements that may hinder self-correction at the Federal Circuit: (1) the “curse of expertise,” which may impair the ability of Federal Circuit judges to recognize potential

decide cases in a way that sets broad rules for the future and that also gives ambitious theoretical justifications for outcomes”).

⁸⁷ See Rooklidge & Weil, *En Banc Review*, *supra* note 48, at 802-03.

⁸⁸ See, e.g., *Regents of the Univ. of Cal. v. DakoCytomation Cal., Inc.*, 517 F.3d 1364, 1379 (Fed. Cir. 2008) (“While we need not reach [the construction of the term ‘morphologically identifiable cell nucleus’] . . . we will do so in the interest of judicial efficiency, as the issue has been fully briefed and that term will likely be at issue on remand.”); *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1375 n.2 (Fed. Cir. 2005) (“We also address the proper construction of the term ‘atomized precipitated silica particulates’ . . . [T]he construction of this second disputed term was not dispositive to the district court’s decision, but may be relevant on remand.”); *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1351 (Fed. Cir. 2004) (“[That the district court properly construed certain key limitations] leads to our affirmance . . . However . . . we consider it to be in the interest of judicial efficiency, as well as in the interest of any future litigation concerning these patents, to review the other contested claim limitations.”).

⁸⁹ See *supra* Part I.A.2.

⁹⁰ See Wald, *Changing Course*, *supra* note 56, at 489 (“[En banc] is not always possible, given the posture of the case, the makeup of the court, or the limited energies of its members . . .”); see also *supra* note 57, and accompanying text.

problems in existing case law; and (2) the “knowing-doing gap,” which may contribute to the court’s failure to take corrective action despite some judges recognizing the existence of a problem.

A. The Curse of Expertise

In general, the patent law expertise of Federal Circuit judges is viewed as a positive trait.⁹¹ Although expertise may enhance one’s ability to analyze problems involving complex subject matter—such as patent law—experts are susceptible to certain systematic errors and biases.⁹² As described in the cognitive psychology literature, the “curse of expertise” is a term that captures the cognitive pitfalls to which experts are particularly susceptible,⁹³ such as underestimating the difficulties of non-experts⁹⁴ and resisting correction.⁹⁵

For the purpose of analyzing the curse of expertise in the context of the Federal Circuit, the “experts” are the Federal Circuit judges, and the “non-experts” are the generalist district judges. The practitioners, who are also active consumers of the Federal Circuit’s decisional output, include a wide range of individuals, from experts (e.g., specialists who have practiced patent law exclusively for decades) to non-experts (e.g., general litigators who have recently become involved in a patent case). However, the discussion of the curse of expertise in this Article will focus primarily on the expert/non-expert comparison between Federal Circuit judges and district judges because both are engaged in the same function—namely, the adjudication of patent disputes.

1. Underestimation of Difficulties of Non-Experts

According to experiments conducted by Pamela Hinds, experts may be prone to underestimating the difficulties encountered by non-experts who attempt

⁹¹ See, e.g., Rochelle Cooper Dreyfuss, *What the Federal Circuit Can Learn from the Supreme Court—And Vice Versa*, 59 AM. U. L. REV. 787, 792 (2010); Timothy B. Dyk, *Does the Supreme Court Still Matter?*, 57 AM. U. L. REV. 763, 772 (2008) (“The Supreme Court has repeatedly confirmed that the Federal Circuit has useful expertise in patent law, and that the Supreme Court benefits from having its views.”).

⁹² See Peter Ayton, *On the Competence and Incompetence of Experts*, in EXPERTISE AND DECISION SUPPORT 77, 77 (George Wright & Fergus Bolger eds., 1992).

⁹³ See generally Pamela J. Hinds, *The Curse of Expertise: The Effects of Expertise and Debiasing Methods on Predictions of Novice Performance*, 5 J. EXPERIMENTAL PSYCHOL.: APPLIED 205 (1999) [hereinafter Hinds, *Curse of Expertise*].

⁹⁴ See *infra* Part II.A.1.

⁹⁵ See *infra* Part II.A.2.

to perform tasks within the expert's field.⁹⁶ At the Federal Circuit, the curse of expertise is at work when it skews the Federal Circuit judges' perceptions regarding the clarity or the soundness of the court's precedents, such that they may fail to recognize when existing case law may warrant reconsideration. That is, the expertise of the Federal Circuit judges could potentially interfere with their ability to recognize when an error in the judgment below may be primarily attributable to vague, conflicting, or unworkable case law, as opposed to the district judge's failure to apply otherwise sound precedent.

By way of illustration, consider the following pair of claim construction canons: the claims must be read in light of the specification;⁹⁷ however, limitations may not be imported therefrom.⁹⁸ District judges have struggled with these canons, which govern the use of the specification in claim construction.⁹⁹ Although the Federal Circuit has acknowledged that a fine line separates these canons,¹⁰⁰ it nevertheless believes that they may be reliably applied¹⁰¹—even though a schism exists in the court's claim construction methodology, which places different emphases on the specification vis-à-vis the claims.¹⁰² This schism, which has endured despite the *en banc* restatement of claim construction principles in *Phillips*,¹⁰³ has made it difficult for district courts to correctly apply these

⁹⁶ Hinds, *Curse of Expertise*, *supra* note 93, at 205 (reporting results from experimental study suggesting that “experts may have a cognitive handicap that leads to underestimating the difficulty novices face”).

⁹⁷ *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996) (“Claims must be read in view of the specification, of which they are a part.”).

⁹⁸ *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 904 (Fed. Cir. 2004) (“[I]t is improper to read a limitation from the specification into the claims.”).

⁹⁹ See, e.g., Andrew T. Zidel, *Patent Claim Construction in the Trial Courts: A Study Showing the Need for Clear Guidance from the Federal Circuit*, 33 SETON HALL L. REV. 711, 748 (2003) (“One of the leading reasons the CAFC reversed trial court claim construction decisions in 2001 was the trial court’s improper importation of limitations from the specification into the claims . . . ”).

¹⁰⁰ *Comark Comm., Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998) (“We recognize that there is sometimes a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification.”).

¹⁰¹ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (*en banc*) (“[T]he line between construing terms and importing limitations can be discerned with reasonable certainty and predictability if the court’s focus remains on understanding how a person of ordinary skill in the art would understand the claim terms.”).

¹⁰² Greg Reilly, *Improvidently Granted: Why the En Banc Federal Circuit Chose the Wrong Claim Construction Issue*, 80 U. CHI. L. REV. DIALOGUE, 43, 45-46 (2013).

¹⁰³ See *supra* note 12; see also *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 (Fed. Cir. 2005) (*en banc*) (Mayer, J. dissenting) (“[W]e say nothing new, but merely restate what has become the practice over the last ten years . . . ”).

complementary canons because the “correct” methodology is panel-dependent. Either the canons need to be updated or the schism needs to be resolved, but with the exception of Judge Kimberly Moore (and possibly Chief Judge Randall Rader),¹⁰⁴ the Federal Circuit does not appear to view the current state of the law on claim construction methodology to be problematic enough to warrant en banc consideration.

2. Resistance to Correction

Hinds’s experiments also suggest that experts, when compared to non-experts, may be unusually resistant to correcting or changing their positions even when presented with “debiasing” information that could help increase the accuracy of their analysis.¹⁰⁵ This comports with the general understanding that experts are “often wrong but rarely in doubt.”¹⁰⁶ It is possible then, that Federal Circuit judges, by virtue of their expertise in patent law, may be prone to approaching their work with a level of overconfidence that may render them relatively unreceptive to reconsidering their analysis in the face of debiasing information.¹⁰⁷

One potential indication of the Federal Circuit’s resistance to debiasing may be its decision to scale back the generation of the STA’s reports of potential conflicts in draft precedential opinions.¹⁰⁸ Another indication may be the court’s perceived reluctance to give substantive consideration to relevant scholarship.¹⁰⁹

¹⁰⁴ See *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 659 F.3d 1369, 1373 (Fed. Cir. 2011) (Moore, J., dissenting) (noting the existence of “a fundamental split within the court as to the meaning of *Phillips* and *Markman* as well as the proper approach to claim interpretation,” and suggesting en banc resolution of “the clear intra-circuit split on the claim construction process”). Chief Judge Rader joined Judge Moore’s dissent. *Id.* at 1370.

¹⁰⁵ See Hinds, *Curse of Expertise*, *supra* note 93, at 217 (“The results reported here suggest that experts’ superior knowledge actually interferes with their ability to predict novice task performance times [The experts] were also unable to correct their estimates when they were prompted with a presentation intended to help them reduce their underestimation.”).

¹⁰⁶ Dale Griffin & Amos Tversky, *The Weighing of Evidence and the Determinants of Confidence*, 24 COGNITIVE PSYCHOL. 411, 412 (1992); see also Jeffrey J. Rachlinski & Cynthia R. Farina, *Cognitive Psychology and Optimal Government Design*, 87 CORNELL L. REV. 549, 560 (2002) (“[E]xperts tend to be overconfident about their decisions. . . . People in general tend to overestimate their own abilities in areas about which they believe themselves to have some greater-than-average knowledge.”).

¹⁰⁷ See Hinds, *Curse of Expertise*, *supra* note 93, at 212.

¹⁰⁸ See *supra* notes 48-52 and accompanying text.

¹⁰⁹ See, e.g., Nard & Duffy, *supra* note 25 at 1647-49; Dreyfuss, *Institutional Identity*, *supra* note 24, at 821 (noting the Federal Circuit’s “low regard for scholarship and its unwillingness to use scholarship as an alternative sounding board”); see also Craig Allen Nard, *Toward a Cautious Approach to Obedience: The Role of Scholarship in Federal Circuit Patent Law*

But perhaps the most profound indication that the Federal Circuit may be unreceptive to debiasing is the seemingly weak corrective influence of the Supreme Court.¹¹⁰ For example, some Federal Circuit judges appear to be resisting the Supreme Court's directive to apply the patentable subject matter requirement more rigorously.¹¹¹ Indeed, the rapid succession of patentable subject matter cases heard by the Supreme Court in recent years¹¹² suggests that it might be engaged in a "battle of wills" with the Federal Circuit. It is possible that some Federal Circuit judges may be reluctant to accord much weight to the guidance provided on issues within their realm of expertise by a non-expert, yet hierarchically-superior, tribunal.¹¹³ This, along with the sparse and episodic nature of Supreme Court review, likely creates a situation where the Federal Circuit is potentially operating without any meaningful moderating influence.

3. *Aggravating Factors*

Research on cognitive heuristics suggests that the key factors contributing to the curse of expertise include anchoring effects¹¹⁴—i.e., the heavy reliance on initial information or impressions¹¹⁵—as well as the "availability heuristic"¹¹⁶—

Jurisprudence, 39 Hous. L. Rev. 667, 668 (2002) (suggesting that the Federal Circuit "should be more receptive to empirical and social science scholarship when deciding patent cases").

¹¹⁰ The Author thanks Laura Pedraza-Fariña for this insight.

¹¹¹ See, e.g., *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341, 1356-57 (Fed. Cir. 2012) (Prost, J., dissenting) ("The majority resists the Supreme Court's unanimous directive to apply the patentable subject matter test with more vigor."), *vacated en banc*, 484 F. App'x 559 (Fed. Cir. 2012), *cert. granted*, 134 S. Ct. 734 (Dec. 6, 2013) (No. 13-298).

¹¹² See, e.g., *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341 (Fed. Cir. 2012), *cert. granted sub. nom. Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 734 (Dec. 6, 2013) (No. 13-298); *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013) (reversing Federal Circuit, in part); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012) (reversing Federal Circuit); *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) (affirming Federal Circuit judgment on other grounds and stressing that "nothing in today's opinion should be read as endorsing interpretations of [35 U.S.C.] § 101 that the Court of Appeals for the Federal Circuit has used in the past").

¹¹³ See Dan Levine, *Insight: Rocker Judge Juggles Tech Policy, Supreme Court and the Stones*, REUTERS (Dec. 11, 2013), available at <http://www.reuters.com/article/2013/12/11/us-usa-judge-rader-insight-idUSBRE9BA06D20131211> ("Given [Chief Judge Randall] Rader's competitiveness and depth of patent knowledge, his friend [Judge Dee] Benson said the Supreme Court's increased interest in the field is particularly challenging . . . 'I don't think that [Chief Judge Rader is] going to be easily convinced that the Supreme Court is right.'").

¹¹⁴ See Hinds, *Curse of Expertise*, *supra* note 93, at 206.

¹¹⁵ DANIEL KAHNEMAN, *THINKING, FAST AND SLOW* 119-20 (2011).

¹¹⁶ Hinds, *Curse of Expertise*, *supra* note 93, at 218 ("The primary difference between those with more and those with less expertise was the accuracy with which they recalled their own

i.e., the tendency to rely on information that readily comes to mind.¹¹⁷ This suggests that the adverse effects of the curse of expertise may be aggravated by the selection effects introduced by the appeals process: the mix of patent cases and issues that reach the Federal Circuit may not be representative of what the district judges encounter. If the Federal Circuit judges over- or under-estimate the severity of the problems associated with certain doctrines, they may consequently over- or under-correct them. This skew in perception may be the most severe for those issues that come before the Federal Circuit infrequently but arise often at the district court level (and vice versa), such as discovery issues and evidentiary rulings, for which seasonable appellate review might be available only through discretionary means.¹¹⁸ Deficient or suboptimal Federal Circuit precedents affecting issues that arise frequently at the district court level, but which rarely make it to the appellate level, not only will have a major adverse impact, but also will endure because the opportunities to develop and refine those precedents will be rare. For example, it took over twenty years for the “adverse inference” and “affirmative duty” rules in *Underwater Devices, Inc. v. Morrison-Knudsen Co.*,¹¹⁹ which presented thorny privilege and waiver issues for accused infringers, to be overruled in *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*¹²⁰ and *In re Seagate Tech., LLC*,¹²¹ respectively.

* * *

In weighing the relative benefits of expertise against the drawbacks discussed above, it is worth noting that the Federal Circuit, by virtue of its expertise, may be quite comfortable with making broad pronouncements on a variety of issues—which, as mentioned earlier, is something that the court should refrain from doing to avoid lock-in of suboptimal precedents.¹²² At the same time, if a given pronouncement proves to be overly broad or otherwise problematic, the cognitive pitfalls associated with expertise could make it difficult for the court to realize that there is a problem. The tradeoff then, is whether an expert court that

novice performance of the task. . . . Evidence from these data suggest that the availability bias is the key contributor to experts’ relative inaccuracy in estimating novice performance times.”).

¹¹⁷ Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 COGNITIVE PSYCHOL. 207, 207-08 (1973).

¹¹⁸ For example, a petition for a writ of mandamus. See *In re Calmar, Inc.*, 854 F.2d 461, 464 (Fed. Cir. 1988) (“Mandamus may be employed in exceptional circumstances to correct a clear abuse of discretion or usurpation of judicial power by a trial court.”).

¹¹⁹ 717 F.2d 1380 (Fed. Cir. 1983).

¹²⁰ 383 F.3d 1337 (Fed. Cir. 2004) (en banc).

¹²¹ 497 F.3d 1360 (Fed. Cir. 2007) (en banc).

¹²² See *supra* note 82 and accompanying text.

might be difficult to correct is preferable to a non-expert court that might be easier to correct. As will be discussed in later sections, there are benefits associated with staffing the Federal Circuit with non-experts that could potentially tip the balance toward the latter option.

B. The Knowing-Doing Gap

The cognitive elements discussed in the previous section are not the only considerations relevant to evaluating the ability of a group of individuals to self-correct. The situational dynamics of the organization, as a whole, may be just as salient. Organizational inaction despite recognition of the existence of a problem is known in the management science literature as the “knowing-doing gap.”¹²³ A canonical example is the disturbingly low rate of hand-washing by healthcare professionals who are fully aware that hand hygiene is essential for minimizing hospital-acquired infections.¹²⁴ Another common example is a corporation hiring expensive management consultants (sometimes on multiple occasions) to provide recommendations on improving operations or solving a problem, but failing to implement their recommendations.¹²⁵

The concept of the “knowing-doing gap” may be useful in the judicial decision-making context as well, as a means for evaluating how suboptimal precedents may be generated and ultimately persist. Although persistence can arise naturally out of stare decisis and by operation of the Federal Circuit’s IOPs, this Article focuses on the behavioral elements beyond those mechanisms. That is, why does the Federal Circuit have difficulty using the tools available to it to prevent the issuance of, or to timely repair, case law that has been identified as problematic not only by observers outside the court, but also by its own judges?¹²⁶ Such

¹²³ See generally JEFFREY PFEFFER & ROBERT I. SUTTON, THE KNOWING-DOING GAP: HOW SMART COMPANIES TURN KNOWLEDGE INTO ACTION 4 (2000) (“[W]e embarked on a quest to explore one of the great mysteries in organizational management: why knowledge of what needs to be done frequently fails to result in action or behavior consistent with that knowledge. We came to call this the *knowing-doing problem* . . .” (emphasis in original)).

¹²⁴ See, e.g., Keith L. Cummings, Deverick J. Anderson & Keith S. Kaye, *Hand Hygiene Noncompliance and the Cost of Hospital-Acquired Methicillin-Resistant Staphylococcus aureus Infection*, 31 INFECTION CONTROL & HOSP. EPIDEMIOLOGY 357, 357 (2010) (footnotes omitted) (“Noncompliance with hand hygiene recommendations is widely recognized as the most important modifiable cause of hospital-acquired infections. . . . Unfortunately, rates of compliance with hand hygiene recommendations are unacceptably low in most hospitals. Results from most studies suggest that overall hand hygiene compliance rates are below 50%.”).

¹²⁵ Pfeffer & Sutton, *supra* note 123, at 2-3.

¹²⁶ A dissent from a denial of rehearing en banc is one of the clearest ways that a Federal Circuit judge can signal the need to reconsider precedent.

institutional inertia is the “knowing-doing gap.” Jeffrey Pfeffer and Robert Sutton suggest that the existence of a “knowing-doing gap” is dependent primarily on organizational considerations, rather than the personal characteristics of individual actors.¹²⁷ As such, a solution for overcoming the “knowing-doing gap” could potentially lie in modifying the institutional structure of the Federal Circuit so that it becomes less susceptible to inertia—regardless of who is serving on the court at any given time. It may be helpful, then, to evaluate the internal dynamics of the appellate decision-making environment to determine how the Federal Circuit’s structure could be modified to inhibit institutional inertia from setting in when it becomes advisable to take remedial action.

In this regard, there are several situational considerations within the appellate decision-making environment that may be worth exploring. For example, a judge may decide to stand firm on an issue because he wants to act consistently with his prior positions. Another reason for standing firm is that the judge has a deep-seated conviction regarding how the case should be decided. At the same time, a judge may desire to maintain a collegial working environment (or *détente*). And finally, a judge may endeavor to defer laborious or otherwise costly tasks if there is no urgency. At first blush, some of these considerations might appear mutually exclusive, in particular, consistency and conviction versus collegiality. However, they may exist as complementary considerations among different judges on different issues as enabled by the third consideration—the lack of urgency.¹²⁸ As explained in greater detail below, these situational considerations may be classified as having a structural origin because they appear to be byproducts of the particular manner in which the Federal Circuit is staffed—namely, lifetime appointments.

1. Consistency and Conviction

Suboptimal precedents could emerge or be maintained when judges refuse to reconsider their prior positions. This refusal may arise from a desire to maintain consistency, a deep-seated conviction on an issue, or a combination of both.

¹²⁷ See Pfeffer & Sutton, *supra* note 123, at 6 (“Some organizations are consistently able to turn knowledge into action Other organizations . . . fail to translate their knowledge . . . into action These differences across firms come more from their management systems and practices than from differences in the quality of their people.”).

¹²⁸ See *infra* Part II.B.3.

In the environment of an appellate court, the desire to maintain personal consistency¹²⁹ could contribute to the perpetuation of problematic case law, particularly when correcting it may require one or more judges to take positions inconsistent with their prior votes or opinions, which could expose them to the risk of losing face.¹³⁰ If the membership of a court has split into opposing camps, the resolve of individual judges to seek vindication and to stay consistent may be heightened. At the same time, it may take less work for a judge to default to his or her prior position, because crafting an opinion that justifies a change of position on principled grounds may be labor-intensive.¹³¹ As such, for judges who wish to maximize the “leisure” aspect of the judicial utility function,¹³² staying consistent may be an attractive option. So long as there is no urgency,¹³³ a judge may decide to defer the investment of the necessary mental and emotional energy required to properly reconsider a prior ruling.

For other judges, the refusal to reconsider may not be driven by the need to appear consistent or to avoid extra work, but rather by a deep-seated conviction on a specific issue. In these instances, the judge is highly unlikely to yield or be convinced to deviate from his or her position, and he or she may be more than willing to undertake the additional work required to write a dissent, if necessary. It is possible that such principled persistence could be more problematic, and at the same time more severe, at the Federal Circuit than in the regional circuits. This is because some Federal Circuit judges might view the court as having an implicit

¹²⁹ Cf. Craig S. Lerner & Nelson Lund, *Judicial Duty and the Supreme Court’s Cult of Celebrity*, 78 GEO. WASH. L. REV. 1255, 1271-72 (2010) (“[T]he [Supreme Court] Justices have become noticeably concerned with remaining *personally* consistent over time. . . . [I]t is striking how frequently one sees members of the Court adhering to their own personal ‘precedents’ rather than deferring to the Court’s actual precedents.” (emphasis in original)).

¹³⁰ See ROBERT B. CIALDINI, *INFLUENCE: THE PSYCHOLOGY OF PERSUASION* 60 (2007) (“Inconsistency is commonly thought to be an undesirable personality trait. The person whose beliefs, words, and deeds don’t match may be seen as indecisive, confused, two-faced, or even mentally ill. On the other side, a high degree of consistency is normally associated with personal and intellectual strength.”); cf. Frederick Schauer, *Incentives, Reputation, and the Inglorious Determinants of Judicial Behavior*, 68 U. CIN. L. REV. 615, 629 (2000) (footnote omitted) (“It is widely recognized that reputation or esteem provides a powerful money-independent incentive for many people.”).

¹³¹ See CIALDINI, *supra* note 130, at 61 (“[Consistency] allows us a convenient, relatively effortless, and efficient method for dealing with complex daily environments that make severe demands on our mental energies and capacities.”).

¹³² See Richard A. Posner, *What Do Judges and Justices Maximize? (The Same Thing Everybody Else Does)*, 3 SUP. CT. ECON. REV. 1, 2 (1993) [hereinafter Posner, *Judges Maximize*] (observing that “judicial utility is a function mainly of income, leisure, and judicial voting”).

¹³³ See *infra* Part II.B.3.

policy-oriented “mission,” i.e., to protect and encourage innovation in the United States,¹³⁴ as opposed to simply deciding cases. As such, some judges may develop strong beliefs as to what the law *ought* to be on certain issues in order to further the court’s “mission.” In addition, as Cotropia suggests, the fact that Federal Circuit judges are repeatedly exposed to the same issues might render them prone to sharp disagreement over nuances.¹³⁵

When viewed together, the desire for consistency and/or to vote one’s conviction likely contribute to the formation of camps within the Federal Circuit, which could drive panel-dependent outcomes. (At a high level, panel-dependence could also be indicative of a more fundamental problem with the case law: The precedents associated with a given doctrine may be so indeterminate¹³⁶ that they comfortably accommodate inconsistent approaches favored by different camps of judges.) Although the desire to be consistent and to remain steadfast on an issue can, under certain circumstances, have beneficial effects in contributing to the stability of case law, they may become problematic when they impede the timely reconsideration of defective or otherwise suboptimal precedents.

2. *The Need to Maintain Collegiality or Détente*

Initially, the desire for consistency and conviction-voting might provide the most intuitive explanations for the Federal Circuit’s difficulty with self-correction. However, they provide only part of the story.

The collective need of a group of judges to maintain collegiality or détente¹³⁷ on a daily basis,¹³⁸ and to avoid fruitless battles with colleagues who

¹³⁴ See Levine, *supra* note 113 (“[Chief Judge] Rader said he thinks his biggest strength is drawing his colleagues into a broader vision for the court as a protector of innovation in the United States . . .”); Pauline Newman, *The Federal Circuit in Perspective*, 54 AM. U. L. REV. 821, 826-27 (2005) (“I marvel at the rapidity with which industrial and entrepreneurial activity responded to the restoration of basic stability to patent law. This history demonstrates that the appropriate application of patent law can indeed be a force for industrial and scientific advance . . .”).

¹³⁵ Cotropia, *supra* note 54, at 820.

¹³⁶ See Paul R. Michel, *The Court of Appeals for the Federal Circuit Must Evolve to Meet the Challenges Ahead*, 48 AM. U. L. REV. 1177, 1191 (1999) (“[T]he complaint regarding panel dependency may be symptomatic of broader ills, such as, ‘indeterminacy’ or ‘unpredictability.’”).

¹³⁷ See RICHARD A. POSNER, *HOW JUDGES THINK* 143 (2008) (“[B]ecause appellate judges sit in panels rather than by themselves, there is a premium on cooperative behavior. The downside is the risk of factions and (though I believe this is quite rare in the federal judiciary) of logrolling (vote trading.”).

might serve with them for decades,¹³⁹ may, at times, take priority over correcting suboptimal case law, which might involve resurrecting disputes over which the judges have “agreed to disagree.” Although a certain degree of collegiality is indispensable to effective decision-making,¹⁴⁰ the risk of “settling” behavior nevertheless exists¹⁴¹: when a group of judges serves together long enough, its members will become intimately familiar with each others’ views to an extent that would allow them to reach a state of equilibrium where the judges fall into a predictable pattern in their voting and opinion-writing.¹⁴² This predictability, in turn, could lead to the ossification of suboptimal precedent.¹⁴³ And because the en

¹³⁸ See Ruth Bader Ginsburg, *Remarks on Writing Separately*, 65 WASH. L. REV. 133, 150 (1990) (“Judges on appellate tribunals . . . live daily with the competing claims or demands of collegiality and individuality. It is up to each judge to keep those claims in fair balance.”).

¹³⁹ Judge Patricia M. Wald of the D.C. Circuit characterizes life on a federal appellate court thusly:

Real friendships are rare on the court. Heartfelt differences of philosophy and ideology militate against them. Powerful egos often impede them, even among philosophical allies. Judges are like monks without the unifying bonds of a common faith. They are consigned to one another’s company for life. They cannot speak about their work outside the walls of the monastery. Lingering resentments and hostilities must be kept under wraps—and a bottle of Mylanta at hand—to preserve the image of a court that is impartial and neutral enough to decide other people’s disputes.

Patricia M. Wald, *Some Real-Life Observations About Judging*, 26 IND. L. REV. 173, 179 (1992).

¹⁴⁰ See generally Harry T. Edwards, *The Effects of Collegiality on Judicial Decision Making*, 151 U. PA. L. REV. 1639 (2003).

¹⁴¹ See Erwin Chemerinsky & Larry Kramer, *Defining the Role of the Federal Courts*, 1990 BYU L. REV. 67, 72 (1990) (“The danger when judges have strong collegial relationships is that they may be reluctant to challenge colleagues and so decide cases or join opinions to preserve those relationships.”). *But see* Edwards, *supra* note 140, at 1646 (“In my view, it is collegiality that allows judges to disagree freely and to use their disagreements to improve and refine the opinions of the court.”).

¹⁴² Cf. Pauline T. Kim, *Deliberation and Strategy on the United States Courts of Appeals: An Empirical Exploration of Panel Effects*, 157 U. PA. L. REV. 1319, 1369 (2009) (“Because of the routine, ongoing interactions among judges within a circuit, the views of their immediate colleagues will be far more salient for panel members when they deliberate than the preferences of the Supreme Court.”).

¹⁴³ An example of ossified precedent is the *de novo* standard of review for claim construction established in *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448 (Fed. Cir. 1998) (en banc), which, despite intense criticism, has endured. Another example is the nonobviousness case law prior to *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). See Nard & Duffy, *supra* note 25, at 1661 (observing that, prior to the Supreme Court’s *KSR* decision, the Federal Circuit had used “boilerplate citations to the [teaching-suggestion-motivation] test, rarely if ever providing new policy justifications for the rule or considering new alternatives or adjustments to the test,” and

banc process is fraught with drama, high cost, and uncertainty,¹⁴⁴ individual panels are left with essentially two options for handling precedents they find troublesome: distinguish them or ignore them.¹⁴⁵ As a result, over time, divergent lines of precedent could emerge that may prove increasingly difficult to reconcile.

The willingness of appellate judges to not only live with, but also allow the creation and maintenance of, suboptimal precedents and divergent case law¹⁴⁶ may be explained by certain behaviors characterized by Judge Richard Posner as “going along” voting and “live and let live” opinion-joining.¹⁴⁷ “Going along” voting in a panel occurs when the judges who are relatively indifferent about the outcome cast their votes with the member having the strongest views.¹⁴⁸ Otherwise, if one or both of the indifferent judges were to vote differently from the opinionated judge, they will need to respond to the spirited arguments of the opinionated judge in either a majority opinion or a dissent.¹⁴⁹ To an indifferent judge, “going along” is less costly than devoting resources to an issue he may not feel strongly about.¹⁵⁰ Relatedly, “live and let live” opinion-joining occurs when a judge joins an opinion that contains remarks he disagrees with, but which are perceived by the joining judge to be *dictum*.¹⁵¹ A judge may rationally view the effort to eliminate *dictum*

concluding that the “doctrinal stagnation shows the weakness of the common-law process at the Federal Circuit, for the suggestion test remained unrefined and unchallenged for decades”).

¹⁴⁴ See *supra* Part I.A.2.

¹⁴⁵ See generally Weil & Rooklidge, *Stare Un-Decisis*, *supra* note 47.

¹⁴⁶ See, e.g., Dreyfuss, *Continuing Experiment*, *supra* note 61, at 776 (observing that “an examination of the way the court handles open questions lends support to the concern that the court is not making fruitful attempts to achieve consensus”); see also Weil & Rooklidge, *Stare Un-Decisis*, *supra* note 47, at 806 (footnote omitted) (“Even as the [Federal Circuit] continues its institutional efforts to keep litigants from attempting to tailor their legal arguments to appeal to particular judges’ perceived biases and predilections, it simultaneously allows fissures to open and widen in the edifice of its jurisprudence.”).

¹⁴⁷ Posner, *Judges Maximize*, *supra* note 132, at 20-21.

¹⁴⁸ *Id.* at 20.

¹⁴⁹ *Id.* Judge Douglas Ginsburg of the D.C. Circuit characterizes dissents as costly endeavors: Even one dissident judge can impose upon me the cost, in time and aggravation, of having to respond to a dissenting opinion -- and the further risk that I will lose my majority in the panel (or upon rehearing en banc). . . . [O]n the court the concurrence of a colleague is the coin of the realm.

Douglas H. Ginsburg & Donald Falk, *The Court En Banc: 1981-1990*, 59 GEO. WASH. L. REV. 1008, 1017 (1991).

¹⁵⁰ Posner, *Judges Maximize*, *supra* note 132, at 20.

¹⁵¹ *Id.* at 20-21.

with which he disagrees as not worth the hassle and potential clashes with the authoring judge.¹⁵²

The “going-along” voting and “live and let live” opinion-joining described by Judge Posner constitute a set of behaviors that may be characterized more generally as “collegial concurrence,” which Cass Sunstein and others define as a form of deference to one’s colleagues¹⁵³ that arises out of a sense of realism,¹⁵⁴ where an individual judge rationally views any attempt to “correct” the other members of the panel as costly and futile. Collegial concurrence may also be at work when a draft precedential opinion setting forth a problematic rule is circulated to the entire court,¹⁵⁵ and the non-panel judges acquiesce in its issuance without substantive revisions.¹⁵⁶

The risk of perpetuating and creating problematic case law also exists if there is a split panel, particularly when the judges belong to opposing camps. In such cases, suboptimal precedents may result when panel members unduly focus on vindicating their respective positions or when lingering resentments or jealousies surface,¹⁵⁷ such that the collective will may not exist to undertake a labor-intensive analysis to reconcile competing considerations and craft a workable rule. Furthermore, when the dissenting judge has been “written off” by the majority, which may often happen to chronic dissenters,¹⁵⁸ it is possible that the majority may take more extreme positions than if it were endeavoring to convert the dissenter into a joiner.

¹⁵² *Id.*

¹⁵³ CASS R. SUNSTEIN, DAVID SCHKADE, LISA M. ELLMAN & ANDRES SAWICKI, ARE JUDGES POLITICAL?: AN EMPIRICAL ANALYSIS OF THE FEDERAL JUDICIARY 64 (2006).

¹⁵⁴ *Id.* at 65 (“A collegial concurrence might well result from a simple calculus: The majority view may be right, and in any case, a dissenting opinion will not do any good even if the majority is wrong.”).

¹⁵⁵ See *supra* Part I.A.1.

¹⁵⁶ See *supra* note 45 and accompanying text.

¹⁵⁷ According to Judge Richard Posner,

[Judges] rarely level with the public—and not always with themselves—concerning the seamier side of the judicial process. This is the side that includes the unprincipled compromises and petty jealousies and rivalries that accompany collegial decision making . . .

RICHARD A. POSNER, THE PROBLEMS OF JURISPRUDENCE 190 (1990).

¹⁵⁸ Diane P. Wood, *When to Hold, When to Fold, and When to Reshuffle: The Art of Decisionmaking on a Multi-Member Court*, 100 CALIF. L. REV. 1445, 1463 (2012) (observing that “if the dissenter becomes branded as a frequent complainer about one or more issues . . . the dissenter will have lost credibility and may be disregarded altogether”).

* * *

It may appear counterintuitive that the concerns relating to consistency/conviction and the need for collegiality may not only co-exist within a single court, but also could jointly contribute to the generation and maintenance of suboptimal precedent. Indeed, consistency/conviction and collegiality can be influences that may be present concurrently on the *same* panel because they may arise for different issues for different judges. Listed below are the possible configurations for a three-judge panel (for en banc panels, additional configurations may exist):

- (a) *All three judges are relatively indifferent regarding the issues on appeal:* Collegial concurrence will likely be the dominant influence on the manner in which the opinion is crafted.
- (b) *One judge has strong opinions on an issue (because of consistency/conviction), and the other two judges are relatively indifferent:* The indifferent judges are likely to “go along” with the opinionated judge.
- (c) *Two judges have strong opinions that are incompatible with each other (because of consistency/conviction), and the remaining judge is indifferent:* The indifferent judge will likely “go along” with one of the two opinionated judges, and the opinionated judge who is in the minority is likely to dissent.
- (d) *All three judges have strong opinions that are incompatible with each other (because of consistency/conviction):* Separate opinions are likely, and there may or may not be a majority opinion.

3. Lack of Urgency

It is not often that a critical mass of appellate judges will perceive an urgent need to correct some defective precedent and willingly “rock the boat”¹⁵⁹ in undertaking the laborious en banc process.¹⁶⁰ A sense of urgency arises infrequently because the consequences of inaction are unlikely to be concrete and immediate for a permanent appellate judge. Rather, the impact of suboptimal decisions from the Federal Circuit is most immediate on the practitioners, who may

¹⁵⁹ See William M. Richman & William L. Reynolds, *Elitism, Expediency, and the New Certiorari: Requiem for the Learned Hand Tradition*, 81 CORNELL L. REV. 273, 324 (1996) (“Judges who know, like, and depend on each other might be less likely to risk their relationship by disagreeing on matters of importance to one or the other. . . . A ‘don’t-rock-the-boat’ mentality might pervade the courts.”).

¹⁶⁰ See *supra* Part I.A.2.

need to update their case strategies, and on the district judges, who must apply the newly-minted precedents in the first instance, under the threat of reversal. For Federal Circuit judges, the impact of problematic case law on their day-to-day work is considerably attenuated, as they can distinguish it in subsequent cases or effectively disregard it¹⁶¹ largely without fear of reversal, as review by the en banc court¹⁶² or the Supreme Court is rare.¹⁶³ Accordingly, the more immediate concerns, such as appearing consistent, saving face, conviction-voting, maintaining collegiality or détente, and avoiding fruitless battles with colleagues who may serve with them for an indefinite period of time, may take precedence over engaging in a potentially costly analysis. Overcoming the “knowing-doing gap,” then, may require changing the adjudicatory environment in a way that decreases the salience of these concerns.

III

SURMOUNTING THE BARRIERS TO SELF-CORRECTION

To overcome both the curse of expertise and the knowing-doing gap, this Article proposes staffing the Federal Circuit with a rotating group of district judges who serve staggered terms of limited duration. A suitable term served by each district judge could be two¹⁶⁴ to four years, which could help guard against the development of the blind spots and inertia associated with the accumulation of expertise and prolonged tenure, respectively,¹⁶⁵ as well as reduce the likelihood of capture by special interests.¹⁶⁶

This proposal resembles a common arrangement within the federal judiciary for staffing tribunals that exercise jurisdiction over specialized subject matter. For example, the Foreign Intelligence Surveillance Court, which reviews applications for orders authorizing electronic surveillance within the United States to obtain

¹⁶¹ See Weil & Rookridge, *Stare Un-Decisis*, *supra* note 47.

¹⁶² See *supra* note 54 and accompanying text.

¹⁶³ See *supra* note 20 and accompanying text.

¹⁶⁴ By way of comparison to suggested term limits for Supreme Court justices, John McGinnis has proposed two years as an appropriate term for a Supreme Court staffed with rotating judges from inferior courts. McGinnis, *supra* note 37, at 546. As another example, Stephen Legomsky has proposed staffing a specialized immigration court of appeals with judges who serve two-year terms. Stephen H. Legomsky, *Restructuring Immigration Adjudication*, 59 DUKE L.J. 1635, 1694-95 (2010).

¹⁶⁵ See *supra* Part II.

¹⁶⁶ See Legomsky, *supra* note 164, at 1695 (arguing that the term of judges serving on a proposed specialized immigration court of appeals should be two years because it “minimizes both the profit in lobbying and the opportunity for capture”).

foreign intelligence information,¹⁶⁷ is staffed by district judges¹⁶⁸ who serve non-renewable, staggered terms of up to seven years.¹⁶⁹ The Judicial Panel on Multidistrict Litigation (JPML), which is empowered to transfer to a single district multiple civil cases whose pretrial proceedings may benefit from consolidation and coordination,¹⁷⁰ is staffed by a mix of district judges and circuit judges.¹⁷¹ The Bankruptcy Appellate Panels (BAPs) that exist in some circuits¹⁷² are staffed by bankruptcy trial judges who are appointed for limited terms¹⁷³ to hear bankruptcy appeals in three-judge panels.¹⁷⁴ As such, the federal judiciary has a variety of existing models as well as the requisite logistical experience for successfully implementing this proposal. In a similar vein, judicial rotation has been suggested as a way of staffing a potential specialized Article III appeals court for immigration, in which district judges and circuit judges serve two-year terms.¹⁷⁵

Moreover, given that the Federal Circuit, in some respects, behaves not unlike an administrative agency that promulgates substantive rules,¹⁷⁶ it may be

¹⁶⁷ Foreign Intelligence Surveillance Act § 103, 50 U.S.C. § 1803 (2006 & Supp. V 2012). See generally *Foreign Intelligence Surveillance Court*, FED. JUDICIAL CTR., http://www.fjc.gov/history/home.nsf/page/courts_special_fisc.html (last visited Mar. 30, 2014).

¹⁶⁸ 50 U.S.C. § 1803(a)(1).

¹⁶⁹ *Id.* at § 1803(d).

¹⁷⁰ 28 U.S.C. § 1407 (2006); *Judicial Panel on Multidistrict Litigation*, FED. JUDICIAL CTR., http://www.fjc.gov/history/home.nsf/page/courts_special_jpml.html (last visited Mar. 30, 2014).

¹⁷¹ *Judicial Panel on Multidistrict Litigation*, *supra* note 170.

¹⁷² 28 U.S.C. §158(b)(1). Currently, only the First, Sixth, Eighth, Ninth, and Tenth Circuits have BAPs. *Bankruptcy Appellate Panels*, U.S. COURTS, <http://www.uscourts.gov/FederalCourts/UnderstandingtheFederalCourts/CourtofAppeals/BankruptcyAppellatePanels.aspx> (last visited Mar. 30, 2014).

¹⁷³ For example, in the Ninth Circuit, BAP judges are appointed to seven-year terms, while in the Tenth Circuit, they are appointed to five-year terms. APPEALS BEFORE THE BANKRUPTCY APPELLATE PANEL OF THE NINTH CIRCUIT 3 (Sep. 2013), <http://www.ca9.uscourts.gov/datastore/bap/2013/02/04/LitigantsManual2013.pdf>; see List of Current Judges, U.S. BANKRUPTCY APPELLATE PANEL FOR THE TENTH CIRCUIT, <http://www.bap10.uscourts.gov/judges.php>.

¹⁷⁴ *Bankruptcy Appellate Panels*, *supra* note 172.

¹⁷⁵ Legomsky, *supra* note 164, at 1686-87.

¹⁷⁶ See, e.g., Sapna Kumar, *The Accidental Agency?*, 65 FLA. L. REV. 229, 231 (2013) (“The Federal Circuit engages in two agency-like functions: promulgating substantive rules and adjudicating disputes. The court has historically engaged in a form of rulemaking by issuing mandatory bright-line rules.”); Ryan Vacca, *Acting Like an Administrative Agency: The Federal Circuit En Banc*, 76 MO. L. REV. 733, 733 (2011) (“When Congress created the Federal Circuit in 1982, it intended to create a court of appeals. Little did it know that it also was creating a quasi-administrative agency that would engage in substantive rulemaking and set policy in a manner substantially similar to administrative agencies.”).

appropriate to change its composition regularly, just like the other government agencies involved in the development of patent policy. For example, the U.S. Patent & Trademark Office and the Department of Justice are each headed by political appointees who typically change along with the presidential administration,¹⁷⁷ and the Federal Trade Commission and the International Trade Commission are each led by commissioners who serve staggered terms of limited duration.¹⁷⁸

A. Combating the Curse of Expertise with District Judges

As previously discussed, the curse of expertise creates a blind spot for the Federal Circuit regarding its perception of the soundness of its precedents: it may render the court prone to misjudging the difficulties encountered by non-expert district judges in applying Federal Circuit case law. In addition, it may render the “expert” Federal Circuit judges resistant to considering debiasing information that may help them recognize potential problems.¹⁷⁹

One way of combating the curse of expertise at the Federal Circuit may be to replace the experts, i.e., the permanent Federal Circuit judges, with non-experts, i.e., district judges. More specifically, the Federal Circuit could be staffed with district judges who have handled a sufficient number of patent cases so as to have developed a sense of which precedents might be suboptimal, and how new or modified precedents might affect the quality of adjudication. In selecting the district judges to serve on the Federal Circuit, the experience threshold may be based on a variety of metrics such as the number of claim construction orders issued or the average number of patent cases handled per year.

That district judges with patent experience may be particularly suitable for the Federal Circuit is suggested by Hinds’s experimental studies demonstrating that those with an intermediate level of knowledge may outperform both experts

¹⁷⁷ See 35 U.S.C. § 3(a) (“[The] Director of the United States Patent and Trademark Office . . . shall be appointed by the President, by and with the advice and consent of the Senate.”); 28 U.S.C. § 503 (“The President shall appoint, by and with the advice and consent of the Senate, an Attorney General of the United States. The Attorney General is the head of the Department of Justice.”).

¹⁷⁸ See 15 U.S.C. § 41 (specifying that the FTC has five commissioners who serve staggered seven-year terms); 19 U.S.C. § 1330(a)-(b) (specifying that the ITC is composed of six commissioners who serve staggered nine-year terms).

¹⁷⁹ See *supra* Part II.A.

and novices in anticipating difficulties faced by novices in completing a task.¹⁸⁰ An expert whose learning experience is a distant memory may not be able to recall his initial difficulty with the task as readily as someone who has learned it more recently,¹⁸¹ while a novice may not have an adequate understanding of the task to make accurate predictions about the behavior of other novices.¹⁸² Applying these lessons to patent case adjudication, it is possible that district judges who have handled multiple patent cases (i.e., the intermediate users of patent case law) may be better than either permanent Federal Circuit judges (i.e., the experts) or district judges who have little or no experience with patent cases (i.e., the novices) at identifying suboptimal precedents, particularly those that have proven difficult for district judges to apply reliably.

Hinds's experiments also suggest that those with an intermediate level of knowledge may be more receptive than experts to debiasing information that could help improve the quality of their decision-making.¹⁸³ It is likely then, that compared to the current version of the Federal Circuit that is staffed with "expert" judges, a version of the court that is staffed with non-expert, yet experienced, district judges might give greater consideration to the conflicts memos prepared by the STA,¹⁸⁴ the relevant academic literature,¹⁸⁵ the views of expert agencies such as the Federal Trade Commission,¹⁸⁶ analogous case law from the regional circuits, and feedback from other district judges and practitioners. In addition, experienced district judges may be less influenced by the appellate selection effects that would

¹⁸⁰ See Hinds, *Curse of Expertise*, *supra* note 93, at 212 (reporting results demonstrating that those with intermediate levels of knowledge outperformed both experts and novices in predicting time required for novices to perform task).

¹⁸¹ *Id.* at 206.

¹⁸² *Id.* at 212 ("Novices . . . have little understanding of the task they are being asked to predict and are unlikely to understand the subtasks involved.").

¹⁸³ *Id.* ("In both debiasing conditions combined, intermediate users improved their predictions by 20%, whereas experts gave predictions that were 2% worse in the debiased than in the unaided trials. . . . [E]xperts were more resistant to debiasing, in general, than intermediate users.").

¹⁸⁴ See *supra* Part I.A.1.

¹⁸⁵ See *supra* note 109 and accompanying text.

¹⁸⁶ The FTC actively studies the patent system and its impact on competition. See e.g., FED. TRADE COMM'N, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION (2011), available at www.ftc.gov/os/2011/03/110307patentreport.pdf; FED. TRADE COMM'N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>.

otherwise provide an inaccurate picture of the relative frequency and severity of certain problems at the district court level.¹⁸⁷

Furthermore, those with an intermediate level of knowledge, i.e., the patent-experienced district judges, may have a greater ability to craft workable precedents than either experts or novices. In another experimental study, Pamela Hinds, along with Michael Patterson and Jeffrey Pfeffer, found that experts tend to use more abstract concepts when imparting specialized, technical information to novices, while beginners tend to use more concrete statements.¹⁸⁸ And while novices instructed by experts demonstrated a greater ability to transfer their knowledge to different, analogous tasks,¹⁸⁹ the novices instructed by beginners learned to complete a specific task more effectively.¹⁹⁰ The results of this experimental study suggest that the pedagogically-optimal mix might be achieved by an individual whose skill level falls in between that of an expert and a beginner, and who, as a result, is more likely to provide an appropriate mix of abstract and concrete guidance. It is possible, then, that opinions authored by patent-experienced district judges—who are neither experts nor beginners—may be more amenable to reliable application at the trial level than those authored by permanent “expert” appellate judges or by district judges who have little substantive experience with patent cases. This is particularly important for patent appeals involving issues (e.g., discovery) that are frequently in contention at the district court level, but are infrequently reviewed on the merits at the appellate level, such that it is critical to get such cases “right” whenever they reach the Federal Circuit because there may be limited opportunities for correcting such precedents in the future.¹⁹¹

The proposed arrangement whereby district judges craft appellate precedents—that they will later follow under the threat of reversal—could be viewed as a quality-control measure that bears a conceptual resemblance to a software development process known as “eating one’s own dog food” or

¹⁸⁷ See *supra* Part II.A.3.

¹⁸⁸ Pamela J. Hinds, Michael Patterson & Jeffrey Pfeffer, *Bothered by Abstraction: The Effect of Expertise on Knowledge Transfer and Subsequent Novice Performance*, 86 J. APPLIED PSYCHOL. 1232, 1232 (2001) [hereinafter Hinds et al., *Bothered by Abstraction*].

¹⁸⁹ *Id.* at 1240 (“In Hypothesis 4, we argued that the benefits of beginner instruction would not necessarily be obtained when novices were asked to perform a different task of the same type. . . . Although not statistically significant, expert-instructed novices as compared with beginner-instructed novices took less time to perform the nontarget task”).

¹⁹⁰ *Id.* (“[W]e found that novices instructed by experts made more errors ($M = 1.64$ vs. 0.58) and required more time to complete the project ($M = 368$ vs. 237 s) than novices instructed by beginners”).

¹⁹¹ See *supra* Part II.A.3.

“dogfooding,” where software developers use internally the products they are developing in order to improve their ability to test and debug them.¹⁹² Examples include Google’s employees internally using Android™ products before making them available to the public,¹⁹³ and Microsoft internally using the Windows® operating system.¹⁹⁴ This practice tightens and strengthens the software development feedback loop between the developers and the end users because they include the same people. Likewise, the substitution of permanent Federal Circuit judges with district judges could similarly strengthen the “feedback loop” between the appellate and trial levels by having one of the primary consumers of Federal Circuit case law (i.e., district judges) contribute directly to its creation and revision. More generally, district judges who have struggled to apply Federal Circuit precedents may have a better sense than the current group of permanent Federal Circuit judges (most of whom do not have any experience as trial judges)¹⁹⁵ of how existing precedents should be clarified, modified, limited or overruled so that generalist district judges, as well as litigants, may reliably apply them in a manner that improves the overall quality of patent case adjudication.

B. Combating the Knowing-Doing Gap with Rotations

Although district judges may help mitigate the problems arising from the curse of expertise, permanently elevating individual district judges to the Federal Circuit is an incomplete solution. Rather, the district judges should serve staggered terms of limited duration in order to decrease the influence of the three elements that contribute to the knowing-doing gap.¹⁹⁶

¹⁹² See Heath et al., *supra* note 29, at 16-17.

¹⁹³ E.g., Mario Queiroz, *An Android Dogfood Diet for the Holidays*, GOOGLE MOBILE BLOG (Dec. 12, 2009, 8:58 AM), <http://googlemobile.blogspot.com/2009/12/android-dogfood-diet-for-holidays.html>.

¹⁹⁴ E.g., Terrence O’Brien, *Microsoft Details Its Own Windows 8 Rollout, Lessons Learned From ‘Dogfooding’*, ENGADGET (Sept. 28, 2012, 4:11 PM), <http://www.engadget.com/2012/09/28/microsoft-details-its-own-windows-8-rollout>.

¹⁹⁵ Of the eighteen active and senior judges who are serving on the Federal Circuit as of February 1, 2014, only four have served as judges on a subordinate tribunal prior to their appointment, with only one former district judge among them: Judge Rader (U.S. Court of Federal Claims), Judge Mayer (U.S. Court of Federal Claims), Judge O’Malley (U.S. District Court for the Northern District of Ohio), and Judge Wallach (U.S. Court of International Trade). *Judges, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT*, <http://www.cafc.uscourts.gov/judges>.

¹⁹⁶ See *supra* Part II.B.

First, to overcome the consistency/conviction element that promotes overcommitment to prior decisions, changes in personnel may be necessary.¹⁹⁷ As discussed previously, a judge's reputational investment in his prior positions, the convenience of relying on previous analyses, and/or his deep-seated convictions, may make it difficult for him to change course.¹⁹⁸ Rather than waiting for one or more Federal Circuit judges to perform the unusually self-disciplined act of making a public about-face on an issue and engaging in a labor-intensive analysis to limit or overrule precedents they had authored or voted for in the past,¹⁹⁹ the task of precedent correction should be entrusted to a new set of judges who were not involved in creating or perpetuating the precedents at issue, and, as a result, may be less hesitant to make changes when necessary.²⁰⁰ To be clear, the consistency/conviction element will not be completely eliminated in a Federal Circuit staffed with rotating district judges. However, its ability to hinder self-correction may be substantially attenuated because the judges will be serving for limited terms.

Second, regularly rotating the membership of the Federal Circuit may help prevent the court from reaching an unproductive equilibrium, in which judges fall into predictable patterns of voting that may allow suboptimal precedents to issue and remain uncorrected.²⁰¹ Compared to a group of permanent judges with a long history of service together, a group of temporary judges who serve staggered, limited terms might be more amenable to rethinking existing doctrines. Each rotation of temporary judges will introduce new members who may bring fresh perspectives and whose views may not be firm on certain issues. Because a temporary judge may not be fully aware of the ideological or doctrinal alignments of the other temporary judges—and the extent to which their views are set—he may perceive more opportunities (than a permanent Federal Circuit judge) for

¹⁹⁷ Cf. Barry M. Staw & Jerry Ross, *Knowing When to Pull the Plug*, HARV. BUS. REV. 68, 72 (March-April 1987) (“One way to reduce the commitment to a losing course of action is to replace those associated with the original policy or project. If overcommitment stems from psychological and social forces facing the originators of the action, then their removal eliminates some of the sources of commitment.”).

¹⁹⁸ See *supra* Part II.B.1.

¹⁹⁹ Cf. Michael J. Gerhardt, *The Limited Path Dependency of Precedent*, 7 U. PA. J. CONST. L. 903, 952 (2005) (“It has been extremely rare for [Supreme Court] Justices to join in overruling a prior decision that they wrote or joined. In only four cases has a Court with no change in membership overruled itself.”).

²⁰⁰ Cf. *id.* at 953 (“It may . . . be easier to persuade [Supreme Court] Justices that the Court erred in opinions in which they did not participate. Indeed, it is possible new Justices might be more inclined to reconsider precedent.”).

²⁰¹ See *supra* Part II.B.

persuading his colleagues to critically re-evaluate existing case law. The regular rotation of judges may also inhibit the formation of opposing camps that give rise to panel-dependent outcomes and divergent lines of precedent. In addition, judges who serve limited terms may feel freer to “rock the boat” by invoking the labor-intensive *en banc* procedure because the term-limited nature of their appointments may heighten their sense of purpose—i.e., to improve the adjudication of patent disputes—while decreasing the relative importance of maintaining a predictable adjudicatory equilibrium that allows judges to serve comfortably for an indefinite period of time with the same colleagues.²⁰²

Some, however, may point to the high level of dissent at the Federal Circuit²⁰³ as indicative of a court with diverse views that is frequently engaged in a critical analysis of its precedents. However, the frequency of dissent and separate opinion-writing may be largely a reflection of circuit culture and norms.²⁰⁴ Moreover, a high dissent rate may indicate a high degree of entrenchment²⁰⁵ with established camps of judges that have settled into an equilibrium of “agreeing to disagree,” where, on a given panel, neither the majority nor the dissenter perceives a compelling need to temper its views to reach a unanimous result.²⁰⁶ Perhaps because of the high concentration of patent cases on its docket, the Federal Circuit, by design, might be particularly susceptible to camps developing among its permanent judges, whose views may have become progressively nuanced and

²⁰² See *supra* notes 137-142 and accompanying text.

²⁰³ E.g., *Cotropia*, *supra* note 54, at 803 (reporting that the Federal Circuit’s dissent rate is the second highest among six circuits studied).

²⁰⁴ See Virginia A. Hettinger, Stefanie A. Lindquist & Wendy L. Martinek, *JUDGING ON A COLLEGIAL COURT: INFLUENCES ON FEDERAL APPELLATE DECISION MAKING* 67 (2006) (“In circuits with the highest level of separate opinion writing, an individual judge is nearly two and a half times as likely to publish a concurrence or dissent as compared to the baseline.”); see also Rochelle Cooper Dreyfuss, *The Federal Circuit as an Institution: What Ought We Expect?*, 43 LOY. L.A. L. REV. 827, 832 (2010) [hereinafter Dreyfuss, *What Ought We Expect?*] (“Each circuit has its own traditions and heritage. . . . [T]he dissent and *en banc* rates in any circuit can be as much a function of a tribunal’s culture and the composition of its docket as it is a demonstration of a unique level of diversity in the viewpoints of its judges.”).

²⁰⁵ See Dreyfuss, *What Ought We Expect?*, *supra* note 204, at 835 (“[Cotropia’s] findings are equally (if not more) consistent with the view that each judge locks into a position from which he or she refuses to deviate.”).

²⁰⁶ Cf. *id.* at 833 (“To the extent that the judges are not, in fact, reaching consensus on open issues, the apparent improvements in patent litigation may be something of an illusion. . . . [T]he law could still be highly dependent on the panel hearing the case.”).

divergent as a consequence of the repeated exposure to the same issues over a prolonged period of time.²⁰⁷

Rather than the rate of dissent, the en banc rate may provide a better sense of whether precedential ossification has set in.²⁰⁸ The Federal Circuit's en banc rate is relatively low,²⁰⁹ which may indicate that, despite the frequency of dissents, the majority of Federal Circuit judges are choosing to avoid a costly, time-consuming endeavor whose outcome may be uncertain.²¹⁰ Ultimately then, the high rate of dissents, when coupled with the relatively low rate of taking cases en banc, may be indicative of a court where its members have settled into camps that give rise to multimodal, panel-dependent outcomes, and where the collective will to resolve conflicting precedents may be weak.

Third, having district judges serve limited terms may help create a sense of urgency at the Federal Circuit for fixing suboptimal precedents. As previously discussed,²¹¹ permanent judges may view the process of correcting precedents as a labor-intensive endeavor that may be conveniently deferred by defaulting to their prior positions,²¹² engaging in forms of collegial concurrence such as “going-along voting” and “live and let live opinion-joining,”²¹³ and studiously avoiding the en banc process.²¹⁴ Unlike a judge with a permanent appointment at the Federal Circuit, a district judge who serves for a limited time knows that after returning to the district court level, she will be required to follow the precedents she created—under the threat of reversal. Accordingly, district judges serving temporarily at the Federal Circuit may feel a heightened need to “get it right” compared to permanent judges,²¹⁵ such that they might be more willing to undertake the effort to correct, or prevent the issuance of, suboptimal precedents.

²⁰⁷ *Cotropia, supra* note 54, at 820.

²⁰⁸ *Id.* at 821-22 (“[T]he rate of en banc reviews may be the best metric for determining how willing a court of appeals is to innovate new legal rules, percolate these concepts, and then eventually adopt them in future decisions.”).

²⁰⁹ *Id.* at 803-04 (reporting that “the Federal Circuit’s percentage of en banc review is relatively low but statistically indistinguishable from those of three other circuits studied”).

²¹⁰ *See supra* Part I.A.2.

²¹¹ *See supra* Part II.B.

²¹² *See supra* notes 131-132 and accompanying text.

²¹³ *See supra* notes 147-154 and accompanying text.

²¹⁴ *See supra* Part I.A.2.

²¹⁵ *Mazza, supra* note 37, at 134 (“[F]ederal judges who serve only periodically at the appellate level may be more inclined to craft their opinions with greater care for their implications, knowing that they will have to live under them at the district level . . .”).

At a more general level, the rotation of judges at the Federal Circuit may create a form of de facto percolation through regular changes in *personnel*, which may be a faster form of percolation involving more judges than increasing the number of circuit courts that hear patent appeals (i.e., percolation through *space*).²¹⁶ or waiting for Supreme Court intervention (i.e., percolation through *time*).²¹⁷ That is, with regular changes in personnel, the process of case law development at the Federal Circuit is likely to be more responsive than it is currently. If a rule is sound, subsequent instantiations of the Federal Circuit with a new slate of district judges will likely maintain it.²¹⁸ And if a rule is unsound, subsequent instantiations may be less hesitant to reconsider it and make adjustments. Ultimately, by allowing percolation to occur through regular changes in personnel, Federal Circuit precedents can be developed by individuals from a much wider variety of backgrounds and perspectives than is currently possible, while at the same time preserving a single appellate venue for patent cases.²¹⁹

IV CONCERNS AND OBJECTIONS

A. Stability of Case Law

Some might object to staffing the Federal Circuit with a rotating group of district judges on the ground that it could potentially destabilize patent case law.

This proposal is certainly not without costs, and the potential for doctrinal fluctuations is one of them. However, because Federal Circuit case law has limited opportunities for the type of corrective percolation that occurs among the regional circuits,²²⁰ and, at the same time, must adapt to changes in technology,²²¹ the

²¹⁶ Nard & Duffy, *supra* note 25; *see also* Golden, *supra* note 19, at 662 (characterizing Nard & Duffy's proposal as percolation through "greater appellate space" (emphasis in original)).

²¹⁷ Golden, *supra* note 19, at 662 (arguing that Supreme Court should periodically review substantive patent law to "combat undesirable ossification of legal doctrine" and describing "how the Supreme Court and the Federal Circuit can work to ensure better and more complete percolation of patent law issues over time" (emphasis in original)).

²¹⁸ Cf. RICHARD A. POSNER, THE FEDERAL COURTS: CRISIS AND REFORM 163 (1985) (noting that "a difficult question is more likely to be answered correctly if it is allowed to engage the attention of different sets of judges deciding factually different cases than if it is answered finally by the first panel to consider it").

²¹⁹ Cf. Dreyfuss, *Institutional Identity*, *supra* note 24, at 811 (describing need for "new voices" to develop case law while expressing reservations about Nard & Duffy's proposal to increase number of appellate venues for patent cases).

²²⁰ See *supra* note 25 and accompanying text.

²²¹ See *supra* note 24 and accompanying text.

benefits associated with a more responsive system for reconsidering and updating precedent, as provided by the judicial rotation proposal, are expected to outweigh the costs associated with any temporary doctrinal fluctuations. Moreover, the current status of the Federal Circuit as “the *de facto* administrator of the Patent Act”²²² may tilt the cost-benefit analysis in favor of implementing some mechanism for regularly rotating its membership. Whether judicial rotations may be cost-justified for any of the regional circuits is an issue left to future research.²²³

The entrenchment of suboptimal precedents may be a more serious problem for the Federal Circuit than the transient doctrinal swings that may result from the court’s attempts to further refine its case law based on fresh insights that new members may bring with each rotation. The development of sound precedent is necessarily an iterative process, and the use of term-limited, rotating judges could cause fluctuations in precedent to occur more frequently within a shorter time period. At the same time, the case law associated with a particular doctrine may be less prone to getting stuck in a suboptimal state. In contrast, with permanent judges, the process of self-correction by the court may be much slower such that suboptimal case law might have the *appearance* of stability or doctrinal “consistency” because it is not being actively reconsidered, as opposed to enduring on its merits.

The potential for doctrinal instability under the rotation proposal could be mitigated, in part, by amending the Federal Circuit’s IOPs. For example, to avoid the potential loss of institutional or historical knowledge regarding Federal Circuit case law when a group of temporary judges rotates off the court, the IOPs could be amended so that the STA would once again provide the judges with reports analyzing *every* draft precedential opinion for potential conflicts prior to issuance. And, as compared to the permanent Federal Circuit judges, the rotating district judges, as non-experts, might pay closer attention to the STA’s reports.²²⁴ If the proliferation of too many precedential opinions in the course of self-correction is a concern,²²⁵ the IOPs could be changed so that the rate of issuance of precedential

²²² Kumar, *supra* note 176, at 233.

²²³ One commentator, Michael Mazza, has suggested that *all* federal appeals court judges should have term-limited appointments, after which they would continue their service at the district court level. Mazza, *supra* note 37, at 133. However, Mazza did not provide a cost-benefit analysis of his proposal for each circuit.

²²⁴ See *supra* text accompanying note 184.

²²⁵ The Federal Circuit may already be producing too many precedential opinions. See Haldane Robert Mayer, *Foreword: Reflections on the Twentieth Anniversary of the Court of Appeals for the Federal Circuit*, 52 AM. U. L. REV. 761, 767 (2003) (“The Federal Circuit is a prolific producer of precedential opinions. . . . On average, therefore, we write more than 200

opinions decreases, while allowing more non-precedential dispositions and Rule 36 judgments to issue, so as to dampen any precedential whipsawing that might occur from the accelerated percolation resulting from the rotations. Currently, an election to issue a Rule 36 judgment requires panel unanimity, while a majority is required to issue an opinion as nonprecedential.²²⁶ To decrease the proportion of dispositions classified as precedential, the IOPs could be amended so that an opinion may be issued as precedential only if *all* panel members agree on that designation.²²⁷ Alternatively, the election to make an opinion precedential could be taken away from the panel that decided the case, and instead given to a different panel of judges.

Finally, the opposite concern might also arise: whether the district judge rotation proposal could actually make doctrinal change *less* likely. That is, when in doubt, might the district judges be inclined to defer to an existing body of law created by “the experts”? It is possible that this inclination could exist at the very beginning of the tenure of a district judge who has rotated onto the Federal Circuit. However, this inclination may be tempered as the district judge settles into his appellate role and delves into the body of Federal Circuit case law on a regular basis. Overall, the potential for undue deference to prior case law is likely to be weak because the district judges who are selected for the rotations, while not experts, are not novices either.²²⁸ Moreover, based on their experiences with adjudicating patent cases at the trial level, the district judges may relish the opportunity to revisit those doctrines have been troublesome for them, especially because they will have to live with the precedents they create when their rotations end.

B. Quality of Adjudication

Some may argue that the participation of district judges in Federal Circuit appeals could compromise the quality of adjudication, because their level of patent

precedential opinions a year. That is a number I believe we should work to reduce. Too many opinions in well-trod areas of the law contribute to uncertainty and instability.”).

²²⁶ IOP, *supra* note 41, at #10.

²²⁷ For an empirical study on the effect of publication rules on the rate of opinion publication, see Deborah Jones Merritt & James J. Bradney, *Stalking Secret Law: What Predicts Publication in the United States Courts of Appeals*, 54 VAND. L. REV. 71 (2001). A limitation of Merritt & Bradney’s study, which analyzes only the regional circuits, is that it was conducted prior to the addition of Federal Rule of Appellate Procedure 32.1, effective December 1, 2006, which prohibits restrictions on the citation of nonprecedential opinions issued on or after January 1, 2007.

²²⁸ See *supra* Part III.A.

law expertise is lower than that of permanent Federal Circuit judges, and that the selection criteria applied to individuals who become district judges may be somehow less rigorous than that of Federal Circuit judges.²²⁹ However, as suggested by Nard & Duffy's proposal to expand the number of circuit courts to hear patent appeals to allow inter-circuit percolation,²³⁰ and Judge Wood's endorsement thereof,²³¹ patent law expertise at the appellate level may not be nearly as important as ensuring that robust mechanisms exist to facilitate reconsideration and correction of case law. The Federal Circuit's susceptibility to expertise-induced blind spots²³² and lack of receptivity to debiasing information²³³—combined with the institutional inertia arising from lifetime appointments²³⁴—may well result in suboptimal case law that is likely to endure. The tradeoff then, is whether an expert court that might be difficult to correct is preferable to a non-expert court that might be easier to correct. In view of the unique requirements of patent case law—namely, uniformity and the ability to adapt to changing technologies—the latter option might be preferable.

In addition, staffing a “specialized court” with a group of generalist district judges may check the tendency of that court to develop case law that unnecessarily deviates from the mainstream practice of the regional circuits.²³⁵ Permanent Federal Circuit judges may see themselves as “boosters” of patent law,²³⁶ such that the appropriate patentee-public balance in patent case law might be better maintained by a Federal Circuit that is staffed by temporary judges whose reputations are not solely dependent on their work at that court, and, as a result,

²²⁹ See Dreyfuss, *Continuing Experiment*, *supra* note 61, at 796 (“If it is true that the judges of the Federal Circuit have greater facility with the technical materials involved in patent disputes, then the outcome of the cases on which a judge from another circuit participated might be compromised, or viewed as compromised Differences in the selection criteria and experience of district court judges may also contribute to a sense that lower quality justice was being dispensed.”).

²³⁰ See *supra* note 69 and accompanying text.

²³¹ See *supra* note 70 and accompanying text.

²³² See *supra* Part II.A.1.

²³³ See *supra* Part II.A.2.

²³⁴ See *supra* Part II.B.

²³⁵ See Gugliuzza, *Federal Circuit*, *supra* note 68, at 1817-18 (describing Federal Circuit exceptionalism).

²³⁶ Specifically referring to the Federal Circuit, Judge Richard Posner has observed that “[a] specialized court tends to see itself as a booster of its speciality.” Declan McCullagh, *Left Gets Nod from Right on Copyright Law*, CNET (Nov. 20, 2002), <http://news.cnet.com/2100-1023-966595.html>; see also John R. Allison & Mark A. Lemley, *How Federal Circuit Judges Vote in Patent Validity Cases*, 27 FLA. ST. U. L. REV. 745, 765 n.44 (2000) (noting that “one perceived goal of the Federal Circuit was to strengthen patent rights”).

would be less inclined to develop precedents in a direction that would enhance the court's influence at the expense of other governmental institutions and the public.²³⁷ Furthermore, because the generalized nature of their dockets regularly exposes district judges to issues that lie at the federal-state court interface, they may be more sensitive to the need to strike an appropriate jurisdictional balance between federal and state courts in cases involving state law claims that raise issues related to patent law.²³⁸ Finally, whether someone is appointed to a circuit court versus a district court is less a function of qualifications and more a function of politics and chance.²³⁹

Another concern with staffing the Federal Circuit with only district judges is that they might be reluctant to reverse a fellow district judge on appeal based on sympathy or other reasons unrelated to the merits.²⁴⁰ However, this may not be a

²³⁷ See William M. Landes & Richard A. Posner, *An Empirical Analysis of the Patent Court*, 71 U. CHI. L. REV. 111, 111-12 (2004) (“It was predictable that a specialized patent court would be more inclined than a court of generalists to take sides on the fundamental question whether to favor or disfavor patents . . .”); Gugliuzza, *Federal Circuit*, *supra* note 68 at 1853 (discussing how a specialized court may attempt to enhance its prestige as an institution); *cf. Term Limits For Judges?*, *supra* note 37 at 687 (statement of Judge Laurence H. Silberman) (suggesting 5-year term limits for Supreme Court Justices on the theory that they “would think of themselves more as judges and less as platonic guardians”); McGinnis, *supra* note 37, at 545 (“Requiring the Supreme Court’s work to be done by [a rotating group of] ordinary judges would make it more likely that they would only do the Court’s proper work.”). *But see* Nard & Duffy, *supra* note 25, at 1628 & n.40 (observing that whether the Federal Circuit acts to aggrandize the importance of its jurisdiction “remains a matter of significant dispute”).

²³⁸ Federal Circuit Judge Kathleen O’Malley, who is the sole former district judge on the Federal Circuit, has been critical of the court’s attempts to expand its jurisdiction over state law claims. *See, e.g.*, *Byrne v. Wood, Herron & Evans, LLP*, 676 F.3d 1024, 1027 (Fed. Cir. 2012) (O’Malley, J., dissenting from denial of rehearing en banc) (“It is time we stop exercising jurisdiction over state law malpractice claims. I dissent from the court’s refusal to consider this matter *en banc* . . .”). Judge O’Malley’s position was subsequently vindicated by the Supreme Court. *See* *Gunn v. Minton*, 133 S. Ct. 1059, 1065 (2013) (“Although [state legal malpractice claims based on underlying patent matters] may necessarily raise disputed questions of patent law, those cases are by their nature unlikely to have the sort of significance for the federal system necessary to establish jurisdiction.”).

²³⁹ Posner, *Judges Maximize*, *supra* note 132, at 3-4 (“Politics, personal friendships, ideology, and pure serendipity play too large a role in the appointment of federal judges to warrant treating the judiciary as a collection of genius-saints miraculously immune to the tug of self-interest.”); *see also* McGinnis, *supra* note 37, at 545 (“The variation in legal ability that now exists within the federal judiciary is relatively small What distinguishes the [Supreme Court] Justices as a group from other federal judges is not so much their talent as the luck and the political skills that got them onto the high court . . . ”).

²⁴⁰ *See, e.g.*, Stephen L. Wasby, “*Extra*” Judges in a Federal Appellate Court: The Ninth Circuit, 15 L. & SOC’Y REV. 369, 379 (1980) (“District judges may simply be disinclined to

substantial risk: according to one study of appeals terminated in the federal appellate courts from 1987 to 1992, the reversal rate for appeals from district courts where the panel included a district judge sitting by designation (18.54%) was indistinguishable from that of all panels in appeals originating from the district courts (18.57%).²⁴¹ It is possible, however, that the similarity in reversal rates might be partially attributable to the designated district judges deferring to the appellate judges on their panels,²⁴² such that a panel comprised of only district judges might feel freer to affirm more often. To decrease the likelihood of undeserved affirmances under the judicial rotation proposal, the cases assigned to a panel should not include any appeal from the home district of any panel member. Also, if the identity of the author is masked through the issuance of a “per curiam” opinion, a district judge might feel more comfortable authoring an opinion reversing a fellow district judge. To the extent that the affirmation rate might increase by a nontrivial margin in a district-judge-only Federal Circuit, it could reflect a salutary development that counterbalances the previous expansion of the number of issues subject to *de novo* review.²⁴³ In addition to the standard for reviewing claim construction,²⁴⁴ the Federal Circuit recently extended *de novo* review to the objective prong of the willfulness standard,²⁴⁵ and the objective

reverse other district judges, with whose problems they sympathize and with whom they may have strong personal ties. Or they may be over-sensitive to reversals because of their own experience.”).

²⁴¹ Richard B. Saphire & Michael E. Solimine, *Diluting Justice on Appeal?: An Examination of the Use of District Court Judges Sitting by Designation on the United States Courts of Appeals*, 28 U. MICH. J.L. REFORM 351, 368, 369 tbl.3 (1995).

²⁴² *Id.* at 378.

²⁴³ Some Federal Circuit judges have expressed concerns about the expansion of the number of issues subject to *de novo* review. *See, e.g.*, Highmark, Inc. v. Allcare Health Mgmt. Sys., 701 F.3d 1351, 1362 (Fed. Cir. 2012) (Moore, J., dissenting from denial of rehearing en banc) (“We need to avoid the temptation to label everything legal and usurp the province of the fact finder with our manufactured *de novo* review.”); Highmark, Inc. v. Allcare Health Mgmt. Sys., 687 F.3d 1300, 1320 (Fed. Cir. 2012) (Mayer, J., dissenting) (“The fact that we have been vested with exclusive appellate jurisdiction in patent cases does not, however, grant us license to invade the fact-finding province of the trial courts.”).

²⁴⁴ Cybor Corp. v. FAS Techs. Inc., 138 F.3d 1448, 1451 (1998) (en banc) (“[C]laim construction, as a purely legal issue, is subject to *de novo* review on appeal.”).

²⁴⁵ Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., 682 F.3d 1003, 1005 (Fed. Cir. 2012) (“The court . . . holds that the threshold objective prong of the willfulness standard enunciated in *Seagate* is a question of law based on underlying mixed questions of law and fact and is subject to *de novo* review.”).

reasonableness determination for an exceptional case under 35 U.S.C. § 285.²⁴⁶ If the Federal Circuit were staffed by only district judges, the court may be less amenable to expanding the number of issues that are reviewed *de novo* and may even reverse this trend, which could ultimately bring greater stability—not less—in the adjudication of certain issues on appeal.²⁴⁷

Another potential objection to staffing an appellate court with only district judges is that they are allegedly less comfortable than circuit judges with the type of group decision-making that takes place at the appellate level, as opposed to the solitary decision-making process at the trial level.²⁴⁸ This claim appears weak in light of the frequency with which district judges sit by designation on, or are elevated to, appellate courts. As for including appellate judges from the regional circuits in the Federal Circuit rotation, it would likely make the proposal less effective, as very few regional circuit judges have any experience with patent cases (let alone an *intermediate* level of experience that is recommended for the rotations).²⁴⁹ At the same time, regional circuit judges may be less accountable because they are unlikely to be in a position to apply the precedents they create at the Federal Circuit as binding authority when they return to their home courts. In addition, the hierarchical difference between the regional circuit judges and the district judges might adversely affect the district judges' independence of judgment required to critically re-evaluate precedents.²⁵⁰

While the analysis of the district judge rotation proposal has focused primarily on its potential impact on the Federal Circuit's patent case law, the effect of the rotations on the non-patent portions of the Federal Circuit's docket is expected to be approximately neutral. Much of the Federal Circuit's non-patent docket originates from agency tribunals, the Court of Federal Claims, and the

²⁴⁶ *Highmark, Inc. v. Allcare Health Mgmt. Sys.*, 687 F.3d 1300, 1309 (Fed. Cir. 2012) ("We review the court's determination of objective reasonableness without deference since it is a question of law.").

²⁴⁷ *See Highmark, Inc. v. Allcare Health Mgmt. Sys.*, 701 F.3d 1351, 1362 (Fed. Cir. 2012) (Moore, J., dissenting from denial of rehearing en banc) ("When we convert factual issues, or mixed questions of law and fact, into legal ones for our *de novo* review, we undermine the uniformity and predictability goals this court was designed to advance.").

²⁴⁸ *See* Saphire & Solimine, *supra* note 241, at 377 & n.106.

²⁴⁹ *See supra* Part III.A. Notably, the idea of creating a national patent appellate court staffed by circuit judges on temporary assignment was proposed as early as 1900 by the ABA. John F. Duffy, *The Festo Decision and the Return of the Supreme Court to the Bar of Patents*, 2002 SUP. CT. REV. 273, 292.

²⁵⁰ *See infra* notes 269-271 and accompanying text.

Court of International Trade.²⁵¹ The variety of cases that a generalist district judge typically handles is far greater than the Federal Circuit docket—in terms of the types of government agencies, tribunals, parties, and issues,²⁵²—such that it is unlikely that the rotating judges will have difficulty with, or materially affect the quality of, the adjudication of the Federal Circuit’s non-patent docket, particularly when the scope of appellate review is often restricted in such cases.²⁵³

C. Are There Less Radical Alternatives?

Some may question the need for regular rotations at the Federal Circuit, given that turnover does occur, albeit at a slower pace. Since 2010, six new judges have been appointed to the court: Kathleen O’Malley,²⁵⁴ Jimmie Reyna,²⁵⁵ Evan Wallach,²⁵⁶ Richard Taranto,²⁵⁷ Raymond Chen,²⁵⁸ and Todd Hughes.²⁵⁹ The new

²⁵¹ See *Appeals Filed in Major Origins*, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT, <http://www.cafc.uscourts.gov/images/stories/Statistics/hist%20casel%20by%20origin%20 10-year.pdf> (last visited Mar. 30, 2014).

²⁵² See *U.S. District Courts—Civil Cases Commenced, by Basis of Jurisdiction and Nature of Suit, During the 12-Month Periods Ending March 31, 2012 and 2013*, U.S. COURTS, <http://www.uscourts.gov/uscourts/Statistics/FederalJudicialCaseloadStatistics/2013/tables/C02Mar13.pdf> (last visited Mar. 30, 2014).

²⁵³ See, e.g., *Leyga v. Shinseki*, 2013 U.S. App. LEXIS 22498, at *3-4 (Fed. Cir. Nov. 6, 2013) (“[The Federal Circuit’s] review of Veterans Court decisions is strictly limited by statute . . . [W]e may not review findings of fact or application of law to the facts, except to the extent that an appeal presents a constitutional issue. 38 U.S.C. § 7292(d)(2).”); *Addison v. HHS*, 945 F.2d 1184, 1186 (Fed. Cir. 1991) (“We must affirm the Board’s decision unless it is arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law, obtained without procedures required by rule, law, or regulation, or unsupported by substantial evidence. 5 U.S.C. § 7703(c) (1988) . . .”).

²⁵⁴ *Kathleen M. O’Malley, Circuit Judge*, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT, <http://www.cafc.uscourts.gov/judges/kathleen-m-omalley-circuit-judge.html> (last visited Mar. 21, 2014).

²⁵⁵ *Jimmie V. Reyna, Circuit Judge*, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT, <http://www.cafc.uscourts.gov/judges/jimmie-v-reyna-circuit-judge.html> (last visited Mar. 21, 2014).

²⁵⁶ *Evan J. Wallach, Circuit Judge*, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT, <http://www.cafc.uscourts.gov/judges/evan-j-wallach-circuit-judge.html> (last visited Mar. 21, 2014).

²⁵⁷ *Richard G. Taranto, Circuit Judge*, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT, <http://www.cafc.uscourts.gov/judges/richard-g-taranto-circuit-judge.html> (last visited Mar. 21, 2014).

²⁵⁸ *Raymond T. Chen, Circuit Judge*, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT, <http://www.cafc.uscourts.gov/judges/raymond-t-chen-circuit-judge.html> (last visited Mar. 21, 2014).

judges constitute half of the twelve authorized active judgeships.²⁶⁰ Based on this turnover, might the culture of the Federal Circuit change so that it is more amenable to timely self-correction? In drawing an analogy to the assimilation of immigrants, Rochelle Dreyfuss suggests that it might take three generations of Federal Circuit judges to shed the defensive culture of the Markey-era and internalize the general norms of the rest of the federal judiciary.²⁶¹ But the behavioral elements²⁶² that impair timely self-correction will likely remain, as they are grounded not in the culture of the court, but rather in the organizational structure based on the types of individuals involved (i.e., experts) and their operating environment (i.e., working with colleagues having lifetime appointments).

Others may wonder if changes to the Federal Circuit's IOPs may be sufficient to improve the court's ability to timely address suboptimal case law, so as to obviate the need for structural changes. For example, the impact of the consistency/conviction element on the ability of a court to reconsider precedent may be weakened by revising the IOPs so that the panel judges are excluded from participating in the *en banc* consideration of an opinion issued by their panel. In addition, if all opinions were issued "per curiam," it may better focus the panel judges' attention on reaching the right result by decreasing the influence of considerations related to the authoring judge's need to publicly save face or seek vindication of prior positions.²⁶³ Furthermore, the IOPs could be amended to make it more difficult to designate opinions as precedential (e.g., requiring a majority vote of *non-panel* judges) in order to prevent the proliferation of divergent or

²⁵⁹ *Todd M. Hughes, Circuit Judge, U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT*, <http://www.cafc.uscourts.gov/judges/todd-m-hughes-circuit-judge.html> (last visited Mar. 21, 2014).

²⁶⁰ 28 U.S.C. § 44(a).

²⁶¹ Dreyfuss, *Institutional Identity*, *supra* note 24, at 823.

²⁶² See *supra* Part II.

²⁶³ Cf. Lerner & Lund, *supra* note 129, at 1259-60 ("Congress [should] require that all Supreme Court opinions, including concurrences and dissents, be issued anonymously. This should lead to fewer self-indulgent separate opinions, more judicious majority opinions, and more reason for future Justices to treat the resulting precedents respectfully."). In contrast to the Supreme Court, Lerner & Lund believe that preserving the practice of signed opinions may be useful at the circuit court level, on the ground that signed opinions encourage diligence in working on otherwise low-stakes, mundane cases. *Id.* at 1280-81. The Federal Circuit, however, is unique among the circuit courts in exercising exclusive appellate jurisdiction over certain subject areas, and in having its precedents apply nationwide. In addition, patent cases are often deemed high-profile, "bet the company" matters. As such, like the Supreme Court justices, the judges who serve on the Federal Circuit may not need the additional incentive of signing one's name to an opinion in order to refrain from shirking.

suboptimal precedents. To further enhance intra-circuit percolation, the IOPs could be changed so that the presiding judge on the merits panel would be assigned randomly, without regard to seniority, to ensure that the authorship of significant opinions is as varied as possible.²⁶⁴ And finally, the STA's review of all precedential opinions could be reinstated.

While the current version of the Federal Circuit could, in theory, implement these suggested changes to its internal procedures, they are highly unlikely to be adopted. This is because such changes might be perceived as impairing the ability of individual judges to fully participate in the development of precedents (especially if their ability to participate on an en banc panel is restricted) and to establish a legacy (especially if they cannot be identified as the author of a specific opinion), which may be unacceptable to those permanent Federal Circuit judges who, unlike the district judges on temporary rotations, may have their judicial identities closely—and exclusively—associated with the Federal Circuit. And, just as the STA's conflict memos were scaled back, the court may change its IOPs at any time, so any changes may not last.

Finally, some may object to the proposal on the ground that a less radical option exists: have more district judges sit by designation at the Federal Circuit²⁶⁵ and vice versa.²⁶⁶ However, increased designation practice may not be an adequate substitute.

Having district judges sit by designation more often at the Federal Circuit might increase awareness among the Federal Circuit judges that certain precedents are problematic. However, visiting judges do not participate in the Federal

²⁶⁴ Currently, the Federal Circuit uses seniority in choosing the presiding judge for a panel. IOP, *supra* note 41, at #1, ¶2. Because the presiding judge (or the most senior active judge in the majority if the presiding judge dissents) has the power to assign opinion authorship, *id.* at #8, ¶2, the active judges on the court with the highest levels of seniority may exert a disproportionate influence on the shape and direction of Federal Circuit case law. Cf. Amar & Calabresi, *supra* note 37 (observing that “the [Supreme] [C]ourt’s seniority system gives more experienced justices increased power to speak for the court”).

²⁶⁵ See, e.g., Gugliuzza, *Rethinking*, *supra* note 76, at 1474 (“By inviting a wider variety of district judges to sit by designation, the Federal Circuit could cause its law to evolve in a way more cognizant of the role of federal law in the nation and the commercial economy.”).

²⁶⁶ See, e.g., Dreyfuss, *Continuing Experiment*, *supra* note 61, at 796 (“Having judges on the Federal Circuit sit on trial courts might also be beneficial, as it would help the court assess the impact of its practices (such as its refusal to hear interlocutory appeals from claim constructions) on the trial process, and on litigants and jurors.”).

Circuit's en banc process,²⁶⁷ and the additional insights supplied by visiting district judges may have little effect on closing the knowing-doing gap. As discussed previously, an environment that is conducive to self-correction is not one in which an unproductive equilibrium exists with predictable voting patterns, but rather one in which the judges share a sense of urgency in undertaking the effort to reconsider and take corrective action on problematic case law.²⁶⁸ The current adjudicatory environment of the Federal Circuit that is maintained by the permanent judges is unlikely to be materially changed by the district judges who sit by designation, as the latter will be both outnumbered and outranked by the former. Staffing panels with a mix of judges at different levels of the judicial hierarchy may result in district judges subconsciously deferring to the circuit judges, such that the former may dissent less often,²⁶⁹ while the latter may subconsciously assert their superior position in the hierarchy.²⁷⁰ Indeed, the hierarchical disparity between permanent Federal Circuit judges and visiting district judges may adversely affect the latter's independence of judgment necessary to engage the other judges in a critical, rigorous analysis directed to reconsidering existing precedents.²⁷¹

Conversely, if Federal Circuit judges were to sit by designation in the district courts more often, it is possible that it could improve their understanding of the

²⁶⁷ IOP, *supra* note 41, at #14, ¶2(f) (May 24, 2012) ("[T]he court en banc shall consist of all circuit judges in regular active service who are not recused or disqualified and any senior circuit judge of the court who participated in the decision of the panel and elects to sit . . .").

²⁶⁸ See *supra* Part III.B.

²⁶⁹ For example, a district judge, Walter H. Rice, sitting by designation at the Sixth Circuit prefaced his dissent with a statement that he was "not unmindful of the temerity required of a district judge in dissenting from the opinion of an appellate panel on which he sits by designation." *Anderson v. Evans*, 660 F.2d 153, 161 (6th Cir. 1981) (Rice, J., dissenting). See also *Hettinger et al.*, *supra* note 204, at 67 ("A district court judge sitting by designation is less than half as likely as a circuit court judge to write a dissenting opinion."); Paul M. Collins, Jr. & Wendy L. Martinek, *The Small Group Context: Designated District Court Judges in the U.S. Courts of Appeals*, 8 J. EMPIRICAL LEGAL STUD. 177, 177 (2011) (reporting results from empirical study suggesting that "designated district court judges . . . are more susceptible to the influence of their peers than are regular members of the courts of appeals in a nontrivial number of cases"); James J. Brudney & Corey Ditslear, *Designated Diffidence: District Court Judges on the Courts of Appeals*, 35 L. & SOC'Y REV. 565, 597 (2001) (concluding from empirical study that "[a]s panel participants, district judges were markedly less assertive than their appellate colleagues").

²⁷⁰ Cf. Thomas G. Walker, *Behavioral Tendencies in the Three-Judge District Court*, 17 AM. J. POL. SCI. 407, 409, 413 (1973) (analyzing results from empirical study of three-judge district courts staffed by one circuit judge and two district judges, and concluding that "[t]he appeals court judge appears to be the most influential member" and "is the most frequent opinion writer and receives the most support for his opinions").

²⁷¹ Cf. Saphire & Solimine, *supra* note 241, at 376-77.

impact of Federal Circuit case law at the district court level. However, a Federal Circuit judge may need to spend at least a year at a district court handling a full district court docket in order to meaningfully experience the challenges district judges face in managing patent cases with the rest of their caseload. In this regard, the current practice whereby some circuit judges preside over cherry-picked district court patent cases²⁷² is wholly inadequate. Furthermore, it is unlikely that a critical mass of Federal Circuit judges will sit by designation at the district court level because they may have neither the interest nor the necessary skill set (e.g., greater familiarity with trial practice, enhanced project management skills, and facility with a wide range of subject matter, especially criminal procedure). But even if every Federal Circuit judge were to sit by designation at the district court level, there is no guarantee that they will use their newly-acquired knowledge to correct suboptimal precedents when they return to the Federal Circuit—the knowing-doing gap will likely exist so long as the environment of the Federal Circuit remains one where a group of experts serve terms of indefinite duration.

CONCLUSION

If the courts are to solve the patent crisis,²⁷³ the precedents issued by the Federal Circuit must strike the proper balance between private and public interests. And if the precedents become obsolete, unworkable, or are otherwise suboptimal, the Federal Circuit should take prompt remedial measures.

In response to concerns about the Federal Circuit's limited ability to experiment and adapt its precedents to changing needs,²⁷⁴ this Article explores the cognitive and situational considerations that may underlie the Federal Circuit's inability to correct its precedents in a timely manner, and proposes a solution. By staffing the Federal Circuit with a rotating group of district judges, the blind spots and institutional inertia arising from the curse of expertise and the knowing-doing gap, respectively, could be mitigated. Otherwise, by maintaining the present staffing arrangement whereby a group of judges are permanently assigned to the

²⁷² Cf. Gugliuzza, *Rethinking*, *supra* note 76, at 1470 (“Federal Circuit judges do sometimes sit by designation in district courts, but these visits seem to focus on gaining exposure to patent litigation at the trial level rather than gaining a broader understanding of federal law.”).

²⁷³ See generally DAN L. BURK & MARK A. LEMLEY, THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT (2009).

²⁷⁴ See Nard & Duffy, *supra* note 25, at 1647 (noting “growing skepticism about the [Federal Circuit’s] ability to experiment successfully, to adapt its jurisprudence to changing scientific norms, and to develop a common law that accurately reflects the patent system’s varied role in fostering technological innovation”).

Federal Circuit, timely self-correction may occur only if the judges behave in ways that are unusually self-aware and self-disciplined.