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Patent Law Viewed Through an Evidentiary Lens: The “Suggestion Test” as a Rule of Evidence

*Christopher A. Cotropia**

I. INTRODUCTION

Patent quality in the United States is the subject of much recent discussion.¹ There is a general sentiment that many of the inventions for which patents are issued and successfully enforced do not meet the requirement of patentability. The existence and enforcement of these patents hampers competition and, in the end, hurts the consumer.² Stories of patent holding companies harassing honest businesses with invalid patents are becoming commonplace in the popular press.³ The existence of these “trolls,”⁴ and the bad patents

* Associate Professor of Law, Intellectual Property Institute, University of Richmond School of Law. I would like to thank Graeme Dinwoodie, Cynthia Ho, Tim Holbrook, Mark Lemley, Greg Mandel, Joe Miller, Jonathan Nash, Rafael Pardo, Arti Rai, Matt Sag, Katherine Strandburg, and the participants at the Spring 2006 Chicago Intellectual Property Colloquium for their helpful comments and thoughts on an early draft of this Article.

1. See, e.g., ADAM B. JAFFE & JOSH LERNER, *INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT* 34–35 (2004) (arguing that the patent system is broken and improperly creates and enforces patent rights that are too strong); Joseph Farrell & Robert P. Merges, *Incentives To Challenge and Defend Patents: Why Litigation Won't Reliably Fix Patent Office Errors and Why Administrative Patent Review Might Help*, 19 *BERKELEY TECH. L.J.* 943, 945–46 (2004) (identifying problems with patent quality); Bronwyn H. Hall & Dietmar Harhoff, *Post-Grant Reviews in the U.S. Patent System—Design Choices and Expected Impact*, 19 *BERKELEY TECH. L.J.* 989, 995–99 (2004) (detailing problems with the United States patent system that result in low patent quality); Michael S. Mireles, Jr., *The United States Patent Reform Quagmire: A Balanced Proposal*, 6 *MINN. J. L. SCI. & TECH.* 709, 735 (2005) (book review).

2. See Hall & Harhoff, *supra* note 1, at 992–94.

3. See, e.g., Michelle Kessler, *Patent Lawsuits Hit Tech Titans*, *USA TODAY*, Feb. 13, 2006, at B3 (detailing the recent rise of patent suits against large companies); Rachel Laing, *Down to Wire for Blackberry?*, *SAN DIEGO UNION-TRIB.*, Feb. 24, 2006, at A1 (discussing the patent infringement suit against Research-in-Motion that potentially could have caused all Blackberry devices to shut down).

4. “Patent trolls” are companies or individuals who try to “game the system” by obtaining patents and try to “capture not only the value of their inventions, but the value of complementary assets and irreversible investments made by” others. Mark A. Lemley, *Patenting Nanotechnology*, 58 *STAN. L. REV.* 601, 630 (2005).

they seek to enforce, suggests the United States patent system is not working. In fact, the perceived desperate state of the patent system is getting congressional attention, causing the most significant patent reform bill since 1952 to be introduced in Congress this past legislative session.⁵

The focus of much of the criticism is on a particular requirement for patentability—nonobviousness.⁶ The nonobviousness requirement in patent law has been termed the “ultimate condition for patentability.”⁷ It ensures that “even if an invention is new and useful,” that invention represents a measurable technological advance beyond what has already been done.⁸ Only those inventions warrant patent protection. The requirement carries most of the burden of maintaining a balance in patent law between providing an incentive for inventions to be created while not protecting so many minor inventions that protection becomes socially harmful.⁹ Most recent commentary and criticism regarding nonobviousness focuses on the United States Court of Appeals for the Federal Circuit, the court that exclusively handles appeals in patent cases.¹⁰ The main thrust of this criticism is that the Federal Circuit has relaxed the nonobviousness requirement, thereby allowing too much patent protection and, as a result, harming innovation. The criticism is directed at recent Federal Circuit jurisprudence and its alleged modification of the nonobviousness standard.

5. See Patent Reform Act of 2005, H.R. 2795, 109th Cong. (2005).

6. Nonobviousness is also a common target for the popular press’s critiques of the patent system, evidenced by the numerous articles that use the phrase “patently obvious” in their titles. See, e.g., Reed Hundt, *Patently Obvious*, FORBES, Jan. 30, 2006, at 36.

7. See NONOBVIOUSNESS—THE ULTIMATE CONDITION OF PATENTABILITY (John F. Witherspoon ed., 1980).

8. See Robert P. Merges, *Commercial Success and Patent Standards: Economic Perspectives on Innovation*, 76 CAL. L. REV. 803, 812 (1988).

9. See FED. TRADE COMM’N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY ch. 4, at 6–7 (2003) (asserting that a “but for” test instituted by the nonobviousness requirement ensures a proper balance between patent protection and competition).

10. See 28 U.S.C. § 1295(a)(4) (2000) (giving the Federal Circuit exclusive appellate authority over patent appeals). *But see* *Holmes Group, Inc. v. Vornado Air Circulation Sys., Inc.*, 535 U.S. 826, 834 (2002) (limiting the Federal Circuit’s exclusive jurisdiction); Christopher A. Cotropia, “*Arising Under*” *Jurisdiction and Uniformity in Patent Law*, 9 MICH. TELECOMM. & TECH. L. REV. 253, 286–302 (2003) (explaining how the *Holmes* decision disturbed the Federal Circuit’s exclusive jurisdiction).

Recent criticism includes two highly publicized reports—one by the Federal Trade Commission in 2003 and another by the National Research Council in 2004.¹¹ In addition, the Federal Circuit’s nonobviousness case law is the subject of a highly publicized case pending before the Supreme Court—*KSR International Co. v. Teleflex, Inc.*¹² The Petitioner, KSR, is supported by intellectual property law professors, economists, legal historians, many Fortune 500 technology companies, and the Solicitor General.¹³ Furthermore, the Federal Circuit’s nonobviousness jurisprudence has been the subject of multiple academic articles asserting the court improperly applies the doctrine.¹⁴

All of this criticism of the Federal Circuit’s case law focuses, in one form or another, on the “suggestion test” part of the nonobviousness analysis. The suggestion test requires a finding that there was some suggestion before the invention’s creation to combine or modify the prior art—things that have already been done—in such a way as to make the claimed invention.¹⁵ The suggestion test is meant to discern whether there already was a suggestion to create what is claimed to be patentable, and thus, patent protection was not needed to prompt the invention’s creation.

The Federal Circuit is said to improperly limit the suggestion test inquiry. The court requires a suggestion to come from the prior art itself. Other commonly accepted sources of undocumented

11. See generally FED. TRADE COMM’N, *supra* note 9; COMM. ON INTELLECTUAL PROP. RIGHTS IN THE KNOWLEDGE-BASED ECON. ET AL., A PATENT SYSTEM FOR THE 21ST CENTURY (Stephen A. Merrill, Richard C. Levin & Mark B. Myers eds., 2004).

12. 126 S. Ct. 2965, 2965 (2006) (granting certiorari).

13. See, e.g., Brief of Intellectual Property Law Professors as Amici Curiae in Support of Petitioner, *KSR Int’l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Aug. 22, 2006), 2006 WL 2452369 [hereinafter Brief of IP Professors]; Brief of Economists and Legal Historians as Amici Curiae in Support of Petitioner, *Teleflex*, No. 04-1350 (U.S. Aug. 22, 2006), 2006 WL 2452359; Brief of Amici Curiae Cisco Sys. Inc. et al. in Support of Reversal, *KSR Int’l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Aug. 22, 2006), 2006 WL 2452365 [hereinafter Cisco Brief]; Brief for Amici Curiae Time Warner Inc. et al. in Support of Petitioner, *Teleflex*, No. 04-1350 (U.S. Aug. 22, 2006), 2006 WL 2452363; Brief of Intel Corp. & Micron Tech., Inc. as Amici Curiae in Support of Petitioner, *Teleflex*, No. 04-1350 (U.S. Aug. 22, 2006), 2006 WL 2453606; Brief for the United States as Amicus Curiae Supporting Petitioner, *Teleflex*, No. 04-1350 (U.S. Aug. 22, 2006), 2006 WL 2453601s.

14. See, e.g., Rebecca Eisenberg, *Obvious to Whom? Evaluating Inventions from the Perspective of PHOSITA*, 19 BERKELEY TECH. L.J. 885 (2004).

15. See *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 665 (Fed. Cir. 2000).

suggestions, such as the common knowledge of those skilled in the relevant technology or the nature of the problem the invention is solving, are ignored. This “narrow” suggestion test focuses solely on the prior art. Commentators contend that the narrow suggestion test relaxes the nonobviousness requirement because it limits the grounds upon which a suggestion can be found. As a result, the narrow suggestion test allows obvious inventions to be improperly found nonobvious and receive patent protection. Critics, therefore, call for a full, broader application of the suggestion test that considers other factual bases for suggestion—a “broad” suggestion test. One should be allowed to rely on the knowledge in the art or the nature of the problem being solved—undocumented suggestions—to render an invention obvious.

This Article tests the validity of this criticism and finds that the Federal Circuit has not narrowed the suggestion test. By taking a novel look at the jurisprudence, this Article concludes that the court has instead adopted an evidentiary-like aspect of the suggestion test. Those cases where it appears the court is focusing only on the prior art are actually instances where the court is exercising an evidentiary aspect of the suggestion test. The suggestion test’s “rule of evidence” excludes undocumented evidence of suggestion that does not contain the requisite detail and analysis. This rule of evidence is tailored to adjust the level of detail and analysis required to correspond to the complexity of the technology at issue. As a result, the suggestion test’s rule of evidence helps to reduce overvaluation of suggestion evidence and the resulting, incorrect obviousness determinations. However, the rule may produce some erroneous nonobviousness determinations of its own, particularly at the United States Patent and Trademark Office (“USPTO”), and thus should be relaxed in this context. Finally, this use of an evidentiary lens to look at, and evaluate, patent doctrine has application in patent law far beyond nonobviousness and the suggestion test.

This Article reaches these conclusions in the following manner. It first focuses on the Federal Circuit’s recent usage of the suggestion test.¹⁶ Specifically, a descriptive study will concentrate on recent Federal Circuit cases addressing nonobviousness.¹⁷ The specific focus

16. The particulars of the descriptive study are detailed in Part IV of this Article. See *infra* Part IV and notes 101–04.

17. *Id.*

of the descriptive inquiry will be the contours of the suggestion test the court uses.

The initial results of this study are mixed. There are clearly cases where the court ignores all grounds for suggestion other than prior art. Cases such as *Teleflex*, which is currently pending before the Supreme Court, provide good examples of the court apparently using a narrow suggestion test.¹⁸ However, just as many cases are found where the court uses the traditional, broad suggestion test. For example, in *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, the court based its finding of suggestion on knowledge in the art and the nature of the problem being solved.¹⁹ Both narrow and broad suggestion test cases can be found in appeals from patent infringement decisions by district courts and appeals from final rejections of patent applications by the USPTO.

As a result of this initial finding, this Article then takes a second look at this apparent conflict in the substantive law of the suggestion test.²⁰ Instead of focusing on whether the narrow suggestion test is the result of a change in substantive law, this Article asks whether the results in those cases are the product of an evidentiary-like rule. That is, does the suggestion test also have an evidentiary component?

In order to test this hypothesis, this Article compares the undocumented evidence of suggestion the Federal Circuit accepts and rejects in the narrow and broad suggestion test cases. From this comparison, a clear “rule of evidence” emerges.²¹ The Federal Circuit has never deviated from the substance of the traditional, broad suggestion test, as critics argue. Instead, the court has given the suggestion test an evidentiary-like aspect that excludes certain types of undocumented suggestion evidence. What are thought by critics to be instances where the court would accept only prior art as evidence of suggestion are really situations where the undocumented suggestion evidence did not meet the suggestion test’s rule of evidence. That undocumented suggestion evidence was therefore not considered, leaving only prior art for consideration.

18. See *Teleflex, Inc. v. KSR Int’l Co.*, 119 F. App’x 282 (Fed. Cir. 2005).

19. 411 F.3d 1332, 1338–39 (Fed. Cir. 2005).

20. See *infra* Part V.

21. The phrase “rule of evidence” is used as shorthand to emphasize the evidentiary-like features of the aspect of the suggestion test being discussed. The phrase is not used to indicate that this part of the suggestion test behaves in every way like a true rule of evidence. See *infra* note 197.

The suggestion test's rule of evidence requires testimony on undocumented suggestions to be both detailed and thorough in its analysis. The level of detail and analysis required varies with the level of technological complexity of the invention at issue. The more complex the invention, the greater detail and analysis needed for the undocumented suggestion evidence to be "admissible." As the sophistication of the invention decreases, so do the evidentiary requirements.

Once the suggestion test's rule of evidence is articulated, this Article performs a normative analysis of the rule.²² In particular, the rule is evaluated to see if it furthers the substantive goals of the nonobviousness doctrine. This analysis is performed by looking at the rule under evidence theory. Specifically, the rule is evaluated to see if it prevents overvaluation of undocumented suggestion evidence. The rule does prevent overvaluation by both mitigating the effects of hindsight bias and increasing the reliability of admitted testimony on suggestion. By mitigating overvaluation, the rule reduces the number of erroneous findings of obviousness (Type I errors).²³

However, the rule does nothing to reduce incorrect conclusions of nonobviousness (Type II errors).²⁴ The overvaluation the rule prevents only creates improper conclusions of suggestion, and thus obviousness, failing to work in the other direction. Furthermore, the rule may introduce Type II errors of its own by hampering one's ability to prove obviousness by reducing the universe of evidence that can be used to establish an undocumented suggestion. However, the likelihood of Type II errors is diminished by the tailoring the rule performs, ensuring that in those instances where concern of an obvious patent issuing are at their highest, the evidentiary requirement for an undocumented suggestion is at its lowest. Still, a lessening of the evidentiary standard in the USPTO setting would further minimize the possibility of Type II errors without hampering the rule's ability to prevent Type I errors.

This Article concludes by identifying other areas of patent law that may benefit from a similar, evidentiary focused analysis. Two

22. See *infra* Part VI.

23. Type I errors are false-positives, which, in the context of this Article, are incorrect conclusions of obviousness. Cf. *infra* note 271.

24. Type II errors are false-negatives, which, in the context of this Article, are incorrect conclusions of nonobviousness. Cf. *infra* note 271.

specific areas are discussed: claim interpretation and inventorship. Both areas have evidentiary-like rules that can be better described and analyzed through an evidentiary lens. This Article's focus on evidence law not only helps inform and further the nonobviousness discussion, it can also assist in further study of patent law in general.

II. NONOBVIOUSNESS AND THE "SUGGESTION TEST"

In order to obtain a patent in the United States or successfully enforce a patent in district court, the patent must claim an invention that meets the patentability requirements.²⁵ The claimed invention must be directed towards patentable subject matter²⁶ and be useful and novel.²⁷ The patent must also describe the claimed invention and enable those of ordinary skill in the relevant technology to practice the invention.²⁸ Finally, the claimed invention must be nonobvious.²⁹ The final requirement for patentability—nonobviousness—is the focus of this Article.

A. Purpose of the Nonobviousness Requirement

At the core of the United States patent system is the right to exclude. With patent protection comes the ability to exclude others from making and using a protected invention.³⁰ One of the major concerns such protection presents is the "underuse of the invention due to patent monopolies."³¹ The power of exclusion a patent gives its owner can lead to "higher prices for and underutilization of the

25. See 35 U.S.C. § 131 (2000) (noting that the USPTO will examine patent applications to see if the "applicant is entitled to a patent under the law"); *id.* § 282 (noting that invalidity is a defense to a patent infringement action); Scott R. Boalick, *Patent Quality and the Dedication Rule*, 11 J. INTELL. PROP. L. 215, 225–30 (2004) (detailing the requirements for patentability).

26. See *Diamond v. Diehr*, 450 U.S. 175, 182 (1981) (noting that Congress intended for patent protection to extend to statutory subject matter that included "anything under the sun that is made by man" (quoting S. Rep. No. 1979, at 5 (1952); H.R. Rep. No. 1923, at 6 (1952), as reprinted in 1952 U.S.C.C.A.N.)).

27. See 35 U.S.C. §§ 101–102 (setting forth the utility and novelty requirements).

28. See *id.* § 112 (setting forth the written description and enablement requirements). The patent must also describe the best method of practicing the invention known to the inventor at the time of the patent's filing. See *id.*

29. See *id.* § 103 (setting forth the nonobviousness requirement).

30. See *id.* § 271(a).

31. See Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839, 868 (1990) (detailing the downside to patent protection and utilizing economic tools to analyze the pros and cons of patent protection).

patented process or product during the period of exclusion.”³² Exclusion, therefore, introduces certain social costs that are not present when patent protection is absent. These “costs that arise ex post from exclusion” are acceptable if the resulting benefits from the ex ante incentives of patent protection prove to be greater.³³ Patent protection becomes cost beneficial in situations where it is needed to prompt an invention’s creation and the invention it induces is of a level of social value that exceeds the costs associated with exclusion.

The nonobviousness requirement is meant to maintain the optimal balance between the benefits and harms of patent protection.³⁴ An invention must be new and useful to qualify for patent protection.³⁵ But nonobviousness, the “final gatekeeper of the patent system,”³⁶ requires more—the invention must also be “a significant enough technical advance to merit the award of a patent.”³⁷ The requirement attempts to measure the “technical accomplishment reflected in an invention,” and in turn make sure that patents cover subject matter that is more than a mere “trivial step forward in the art.”³⁸

The nonobviousness requirement for patentability also “ask[s] whether an invention would likely emerge in roughly the same time frame—that is, without significant delay—‘but for’ the prospect of the patent.”³⁹ Patents should be granted only for those inventions that would have not been created but for the incentive of patent protection. The nonobviousness doctrine implements this “but for” test by ensuring that patent protection is not given to inventions in

32. 1 DONALD S. CHISUM, CHISUM ON PATENTS § 3.01 (2002).

33. Glynn S. Lunney, Jr., *Patent Law, the Federal Circuit, and the Supreme Court: A Quiet Revolution*, 11 SUP. CT. ECON. REV. 1, 41 (2004).

34. Because of this aspect of the requirement, it has been termed the “ultimate condition of patentability.” See NONOBVIOUSNESS—THE ULTIMATE CONDITION OF PATENTABILITY, *supra* note 7.

35. 35 U.S.C. §§ 101–102.

36. *Merges*, *supra* note 8, at 812.

37. ROBERT MERGES & JOHN DUFFY, PATENT LAW AND POLICY: CASES AND MATERIALS 644 (3d ed. 2002); *Merges*, *supra* note 8, at 812 (“[The] requirement asks whether an invention is a big enough technical advance.”).

38. *Merges*, *supra* note 8, at 812 (emphasis omitted).

39. FED. TRADE COMM’N, *supra* note 9, ch. 4, at 6–7 (asserting that this “but for” test instituted by the nonobviousness requirement ensures a proper balance between patent protection and competition).

those instances where “others would have developed the idea even without the incentive of a patent.”⁴⁰

Without the nonobviousness requirement, the patent system would introduce more social harm than good. First, if merely trivial technological advances were patentable, the system would provide incentives for the creation of inventions that arguably produce little to no social value. This would skew the patent system’s incentive structure—focusing would-be inventors on minor developments as opposed to significant technological advances. In turn, these “economically insignificant patents” would clog the inventive pathways to highly beneficial technological advances.⁴¹ Exclusive control over these minor developments would act as roadblocks, creating disincentives to future inventors. Many patents on small technical advances make it extremely difficult and “expensive to search and to license” these patents in order to produce further innovations.⁴² These high costs will either prevent the public from enjoying certain technologies altogether because they will never be commercialized, or be passed along to the public in the form of higher prices.

Second, even if an invention reaches the requisite level of technological merit, conditions may be such that the invention would have been created and disseminated in the absence of patent protection. In such a situation, providing exclusivity over subject matter that fails the “but for” test introduces the costs of exclusivity when such costs did not need to be imposed. Thus, “eliminating the nonobviousness requirement may impose some social loss by granting patents to innovations that would have been discovered and disclosed even without the inducement of a patent.”⁴³

Nonobviousness, therefore, represents a substantial and significant barrier to protection under the United States patent system.⁴⁴ The doctrine plays a central role in deciding which

40. MERGES & DUFFY, *supra* note 37, at 646; *see also* Lunney, *supra* note 33, at 50–51.

41. MERGES & DUFFY, *supra* note 37, at 646–47; *see also* Christopher A. Cotropia, “After-Arising” Technologies and Tailoring Patent Scope, 61 N.Y.U. ANN. SURV. AM. L. 151, 178–85 (2005) (detailing how patent protection can deter would be follow-on inventors).

42. FED. TRADE COMM’N, *supra* note 9, ch. 4, at 3 (quoting MERGES & DUFFY, *supra* note 37, at 647).

43. Lunney, *supra* note 33, at 38.

44. *See* Glynn S. Lunney, Jr., *E-Obviousness*, 7 MICH. TELECOMM. & TECH. L. REV. 363, 370 (2001).

inventions are patentable—and therefore get a limited period of exclusivity—and those that get no protection. Its effective and proper enforcement is crucial to maintaining the social cost-benefit balance the patent system attempts to implement.

Standing in the way of such proper implementation is the difficulty of articulating the doctrine for usage by the courts, the USPTO, patentees, and other patent observers.⁴⁵ What standard or rule can ensure that both of the determinations already discussed—that an invention reaches a particular level of technical advancement and that the invention would not have been created but for the incentives of the system—are properly and easily made by these patent players? Articulating the goals of the doctrine is fairly easy. Crafting a requirement to effectuate these goals is much more difficult.

B. Modern Implementation of the Nonobviousness Requirement

There is a significant amount of important history leading up to the creation of the modern nonobviousness requirement.⁴⁶ For the purposes of this Article, however, the discussion will begin with the codification of the nonobviousness requirement at 35 U.S.C. § 103 by the 1952 Patent Act.⁴⁷ This statute was meant to “structure judicial thinking about obviousness” and place the requirement on “more solid footing.”⁴⁸ The statutory test for nonobviousness indicates that

[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.⁴⁹

45. The term “observers” is borrowed from Clarisa Long’s work in the patent area. See Clarisa Long, *Information Costs in Patent and Copyright*, 90 VA. L. REV. 465, 468 (2004). The term “observer” is meant to capture all of those who do not own patents but “need to learn and comprehend the boundaries and qualities” of patents for various reasons. *Id.*

46. A short summary can be found in one of Professor Robert Merges’s works on the subject. See Merges, *supra* note 8, at 812–16 (noting the evolution from a highly abstract “test of invention” to the “formal,” “structure[d]” approach of 35 U.S.C. § 103).

47. See 35 U.S.C. § 103 (2000).

48. Merges, *supra* note 8, at 813.

49. 35 U.S.C. § 103(a).

The Supreme Court addressed this codified nonobviousness test in *Graham v. John Deere Co.*⁵⁰ In *Graham*, the Supreme Court noted that § 103 “lends itself to several basic factual inquiries.”⁵¹ The Supreme Court explicitly articulated three such inquiries: (1) identifying the “scope and content of the prior art,” (2) determining the “differences between the prior art and the claims,” and (3) ascertaining “the level of ordinary skill in the pertinent art.”⁵² The Court then indicated that “[a]gainst this background, the obviousness or nonobviousness of the subject matter is determined.”⁵³ The Supreme Court also acknowledged that secondary factors, that is, objective factors such as the commercial success of the invention, could also be properly considered in making the obviousness determination.⁵⁴

In some respects, the rule of law set forth in *Graham* is pretty clear. The opinion explicitly spells out the three initial steps to any nonobviousness analysis. In addition, the usage of secondary considerations as indicia of nonobviousness is clearly noted. But, the decision leaves a significant gap—how does a decision-maker go from the result of the three initial factual inquiries to the ultimate conclusion of nonobviousness or obviousness?⁵⁵ The Supreme Court’s opinion may have even foreshadowed the presence of this gap by noting that, even with the guidance from its opinion, determinations of obviousness would be difficult.⁵⁶ This gap has been, and still is, at the center of any issue of nonobviousness considered by courts, the USPTO, patentees, and other patent observers.

50. 383 U.S. 1, 3–4 (1966).

51. *Id.* at 17.

52. *Id.*

53. *Id.*

54. *Id.* at 17–18. “These secondary considerations include evidence of commercial success, fulfillment of a long-felt but unsolved need, licensing to potential competitors, copying by an infringer, progress of the patent application through the Patent and Trademark Office, near-simultaneous invention by another researcher in the field, and professional approval by experts in the field.” Dorothy Whelan, Note, *A Critique of the Use of Secondary Considerations in Applying the Section 103 Nonobviousness Test for Patentability*, 28 B.C. L. REV. 357, 366 (1987).

55. See FED. TRADE COMM’N, *supra* note 9, ch. 4, at 9 & n.49 (citing Professor John Duffy who testified that the *Graham* Factors “sort of leave off at the very point you think the analysis should start”).

56. *Graham*, 383 U.S. at 18.

The Federal Circuit and its predecessor court, the Court of Customs and Patent Appeals, established a test to fill this gap—the “suggestion test.”⁵⁷ Once the three initial inquiries articulated in *Graham* are made, Federal Circuit case law requires a showing that there is some “suggestion, teaching, or motivation” that would have led a person of ordinary skill in the art to combine or change the relevant art teachings to make the patented invention.⁵⁸ The suggestion test is a required component of any nonobviousness analysis in patent infringement litigation and part of the *prima facie* case of obviousness during patent examination.⁵⁹ This suggestion test provides an analytical tool to determine when the jump can properly be made from defining the relevant prior art, the skill in the art, and differences between the art and the invention to the ultimate conclusion of obviousness.

The suggestion test is formulated to further the goals of the nonobviousness requirement.⁶⁰ First, it attempts to ensure a certain level of technological advancement from that already known in the relevant field of art. If the elements of the invention existed prior to the invention and a motivation or suggestion to use these elements to make the invention was already present, the actual creation of the invention is not a significant enough development to warrant patent protection. The suggestion test also mimics the “but for” analysis commonly associated with the nonobviousness inquiry. The suggestion test asks whether a person of ordinary skill in the art would have, at the time of the invention, been motivated to combine

57. See DONALD S. CHISUM, CHISUM ON PATENTS § 5.04[1][e] (Supp. 2005).

58. *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1351–52 (Fed. Cir. 1998). While suggestion is usually discussed in the context of a suggestion to combine one or more prior art teachings, a suggestion may also be to simply modify a single prior art reference. See *Graham*, 383 U.S. at 21–26 (finding a plow design obvious in light of a single piece of prior art); *Merck & Co. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989) (finding that a single prior art reference is sufficient to render the innovation obvious).

59. See *In re Thrift*, 298 F.3d 1357, 1363 (Fed. Cir. 2002); *C.R. Bard*, 157 F.3d at 1351–52.

60. The suggestion test is not the only part of the nonobviousness inquiry that is meant to further the goals of the doctrine. For example, the secondary considerations are arguably tailored to further the same goals targeted by the suggestion test. See, e.g., Richard L. Robbins, Note, *Subtests of “Nonobviousness”: A Nontechnical Approach to Patent Validity*, 112 U. PA. L. REV. 1169, 1172–83 (1964). Others have argued that certain secondary considerations, such as commercial success, are “a poor indicator of patentability.” *Merges*, *supra* note 8, at 838–59; see also Edmund W. Kitch, *Graham v. John Deere Co.: New Standards for Patents*, 1966 SUP. CT. REV. 293, 330–35 (1966).

what was already known—the prior art teachings—in the same manner as the invention at issue. In other words, when such a suggestion or motivation was present before the invention, one can conclude that there was no, or very little, need for an incentive from the patent system to spark the creation of the invention. With little to no barrier to the invention’s creation due to the existence of a motivation or suggestion, the incentive of patent protection is not needed. In this environment, if the invention has some social value, the rents available, however minimal, from tangible property rights alone will likely be enough to prompt the invention’s creation.⁶¹ The suggestion test, along with the other parts of the *Graham* analysis, becomes a proxy for ensuring that the “but for” assumption to patent protection is implemented.

The suggestion test is also used to avoid “hindsight bias” in the nonobviousness analysis by requiring any finding of suggestion be grounded in specific factual proof. The threat of a nonobvious invention being found to be obvious after it exists, particularly after the fact finder has studied it, is quite high. The nonobviousness analysis is inherently *ex post* because it necessarily takes place after the invention has already been created, but the question asked (Was the invention obvious at the time the invention was made?) is asked *ex ante*. In applying the test, the “decision-maker must step backward in time to a moment when the invention was unknown” to determine nonobviousness.⁶² When making determinations from this perspective, the patented invention should not act as a blueprint as to how to combine different teachings in the prior art together to invalidate the invention. The nonobviousness doctrine, therefore, asks the decision-makers to ignore what they have already learned.⁶³

The problem is that “[h]umans are cognitively incapable of ignoring what they have learned.”⁶⁴ Armed with the knowledge of the patented invention, the skilled artisan’s selection and combination of the prior art to make the claimed invention becomes

61. Lunney, *supra* note 33, at 39 (noting how tangible property rights provide some vehicle for the recapture of sunk costs).

62. Gregory Mandel, *Patently Non-obvious: Empirical Demonstration that the Hindsight Bias Renders Patent Decisions Irrational* 6 (1st Annual Conference on Empirical legal studies paper, 2006), <http://ssrn.com/abstract=871684> (studying whether hindsight bias truly effects patent decisions).

63. *Id.*

64. *Id.*

much easier to comprehend. The conceptualization of the invention's creation is prompted by the invention's current existence. This situation creates a hindsight bias—making an invention more likely to appear obvious to a decision-maker.

In order for the nonobviousness analysis to be performed properly and for the goals of the doctrine to stay true, the doctrine must take hindsight bias into account. The suggestion test is meant to de-bias the decision-maker.⁶⁵ The suggestion test requires the decision-maker to ground any conclusion she may have initially arising from hindsight bias in specific proof. “[T]he best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”⁶⁶ Without the de-biasing effects of the suggestion test, most inventions would be found obvious because all of the elements of those inventions are most likely found in the prior art and the invention itself will act as a road map for how these pieces of prior art can be put together. So the suggestion test not only furthers the main policies behind the nonobviousness requirement, but it also reduces the likelihood that the invention itself will be used against the inventor, biasing the decision-maker, via hindsight, into concluding that the invention is obvious.

While the purposes of the suggestion test are rather easily understood, where such suggestions can be legitimately found is trickier. The Federal Circuit, in almost all of its nonobviousness opinions, recites three sources from which a suggestion may be found: (a) the prior art references themselves, (b) the knowledge of those of ordinary skill in the art, and (c) the nature of the problem to be solved.⁶⁷ The first source, prior art references, is defined by statute and includes those technical journals, articles, and physical devices in existence at the time of the invention's creation.⁶⁸ Basically, this first

65. See *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351 (Fed. Cir. 2001) (“To prevent hindsight invalidation of patent claims, the law requires some ‘teaching, suggestion or reason’ to combine cited references.” (quoting *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 1579 (Fed. Cir. 1999))).

66. *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1997), *abrogated on other grounds by In re Gartside*, 203 F.3d 1305 (Fed. Cir. 2000).

67. *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 665 (Fed. Cir. 2000).

68. See 35 U.S.C. § 102 (2000) (setting forth categories of prior art). The specific contours of “prior art” in patent law are a bit more nuanced than simply what was documented before the invention's creation. See, e.g., *id.* § 102(b) (defining a category of prior art that may

source includes suggestions stemming from the knowledge that was documented at the time of the invention.⁶⁹ The second and third sources focus on the general knowledge of, or interpretation of the problem being solved by, a person skilled in the relevant technological field at the time of the invention. These latter categories include suggestions coming from information that was undocumented at the time of the invention.⁷⁰

III. CRITICISM OF THE FEDERAL CIRCUIT'S NONOBVIOUSNESS JURISPRUDENCE

Most of the recent criticism surrounding the nonobviousness doctrine and the Federal Circuit centers on the suggestion test.⁷¹ Critics assert that the Federal Circuit's implementation of the suggestion test has "reduce[d] the size of the step required for patentability—that is, reducing the rigor of the nonobviousness standard."⁷² While some critics have called for the abolishment of the suggestion test altogether,⁷³ others assert that the Federal Circuit improperly applies a "narrow" suggestion test by recognizing a suggestion or motivation to combine from only prior art references.⁷⁴ The court should, instead, apply a "broad" suggestion

be dated after the invention's creation, but more than one year before the filing date of the invention's patent application); *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1401–04 (Fed. Cir. 1997) (noting that most subsections of § 102 qualify as prior art for consideration in a nonobviousness analysis under § 103).

69. This Article will refer to this first category as "documented suggestions."

70. This Article will refer to these latter two categories, collectively, as "undocumented suggestions."

71. Criticism also focuses on the use of "commercial success" as an objective indicator of nonobviousness. *See, e.g.*, FED. TRADE COMM'N, *supra* note 9, ch. 4, at 15–19 (2003). Discussion of secondary considerations and the commercial success indicia are beyond the scope of this Article.

72. *Id.* at 8.

73. *See, e.g.*, Cisco Brief, *supra* note 13, at 10–11. This Article will focus on the assertion that the Federal Circuit employs a narrow suggestion test and, thus, will not discuss the propriety of the abolishment or replacement of even the broad suggestion test. However, the normative discussion in Part VI of this Article, *infra*, necessarily has some application to the broader nonobviousness debate.

74. As will be explained in more detail below, critics may not identify a specific change to the suggestion test, just that the complete nonobviousness analysis must be based on the prior art and not other, undocumented information. *See, e.g.*, Brief of IP Professors, *supra* note 13, at 10–13 ("As applied in this case, the knowledge of those of ordinary skill in the art is used to help determine the scope and content of the applicable prior art, but there appears to be no room for the application of routine problem-solving skill. The nature of the problem

test that would allow for the consideration of both documented and undocumented suggestions in the search for a suggestion to combine.⁷⁵ The usage of a narrow suggestion test produces a less rigorous nonobviousness standard, which, in turn, results in more obvious patents being issued and successfully enforced.⁷⁶ Such a situation upsets the specific incentives the nonobviousness doctrine is meant to preserve and, instead, introduces social costs the patent system is supposed to avoid.

Two recent reports on the United States patent system examined the Federal Circuit's implementation of the suggestion test. The first is a 2003 report on patent law and competition written by the Federal Trade Commission (FTC). The FTC focused, in part, on the Federal Circuit's use of the suggestion test when determining nonobviousness.⁷⁷ The FTC observed from the hearings it held that while the Federal Circuit articulates three sources from which a suggestion can arise, the "feel of the case law" is that the court recognizes suggestions only from the prior art and not the two other categories.⁷⁸ Motivations must come from literal readings of the references, not from the knowledge in the art or the nature of the problem being solved.⁷⁹ This narrowing of the suggestion test, the FTC concluded, is evidenced in both the Federal Circuit's handling of appeals from patent infringement cases and decisions by the USPTO.⁸⁰ The FTC report particularly noted that the Federal

similarly serves only to motivate a search for references addressing the specific problem at hand.").

75. This distinction between a broad and a narrow suggestion test may also be articulated as the difference between an explicit and implicit suggestion to combine. Such labels cannot be considered equivalent for the purposes of this Article. Broad versus narrow foci on where a suggestion may be found—either in just the prior art or also in the skill in the art or the nature of the problem. Explicit versus implicit speaks to how the suggestion appears in a given source, not a definition of the source itself. *See, e.g.,* *Ecolchem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1375 (Fed. Cir. 2000) (quoting *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1355 (Fed. Cir. 1999)) (articulating the suggestion test as requiring either an "explicit or implicit teaching[...]" found within any of the three commonly recited sources for a suggestion).

76. This situation will be referenced in Part VI of this Article, *infra*, as a "Type II error"—a false finding of an invention's nonobviousness. *See infra* note 271.

77. *See* FED. TRADE COMM'N, *supra* note 9, ch. 4.

78. *Id.* at 12 (quoting testimony from Professor John Duffy).

79. *Id.*

80. *Id.* at 10–12 ("Criticisms of recent opinions focus on the rigorous manner in which the Federal Circuit has applied the suggestion test, rather than the totality of the court's language.").

Circuit requires “the [USPTO] to apply only specific and definitive art references with clear motivation of how to combine those references, and only that will suffice for this obviousness determination.”⁸¹

The FTC concluded that this narrow suggestion test “rais[ed] the bar for finding obviousness” and, in turn, “rais[ed] competitive concerns.”⁸² By excluding skill in the art from the suggestion test analysis, the Federal Circuit fails to find invalid those inventions that fail the “but for” analysis—that would have been produced regardless of the incentive of patent protection. The FTC determined that by ignoring suggestions from the skill in the art or the nature of the problem solved, the Federal Circuit ignores evidence that could clearly suggest the invention is inevitably forthcoming and that patent protection—and the exclusivity that comes along with it—is not needed.⁸³ A relaxed nonobviousness standard, in turn, creates “serious clutter problems and issues involving market power maintenance and extension.”⁸⁴ The FTC recommended that the suggestion test include those undocumented suggestions, such as from the knowledge in the art or the nature of the problem being solved.⁸⁵ Thus, the FTC recommended the usage of a broad suggestion test to put the nonobviousness requirement in line with its intended purpose—providing patent protection where it is warranted and socially beneficial.

The FTC’s report was followed by a 2004 report on the United States patent system by the National Research Council (NRC).⁸⁶ The report included seven recommendations for the current patent system, one of which was to “reinvigorate the non-obviousness standard.”⁸⁷ The NRC’s discussion of this recommendation focused on the current nonobviousness requirement as applied in two

81. *Id.* (quoting the testimony of former PTO director Q. Todd Dickinson).

82. *Id.* at 13. Noting how only looking at prior art references for suggestion or motivation operates as a “one-way ratchet: it can help confirm obviousness, but it does not necessarily identify nonobviousness.” *Id.* at 14.

83. *Id.* at 13–14.

84. *Id.* at 9. The FTC also noted that by reading the person having ordinary skill in the art out of the analysis, the Federal Circuit may be ignoring the statutory mandate of § 103. *Id.* at 14 (noting that “[s]ome applications of the suggestion test, however, appear almost to have read PHOSITA out of the statute”).

85. *Id.* at 15.

86. NAT’L RESEARCH COUNCIL, A PATENT SYSTEM FOR THE 21ST CENTURY (2004).

87. *Id.* at 87–95.

particular contexts: business method and gene sequence-related inventions.⁸⁸

In the business method section of the report, the NRC voiced concern that the suggestion test, in its current form, improperly “assume[s] that the USPTO will have access to the state of the art at the time the invention at issue was made.”⁸⁹ In the business method area, published literature will unlikely fully describe the common knowledge or state of the art at a particular time.⁹⁰ Thus, the USPTO cannot readily establish a *prima facie* case of obviousness during examination if it must find suggestion in a prior art reference because most of the skill in the business method art is not embodied in such references. The report also noted that the USPTO has limited mechanisms through which it can obtain testimony to establish that knowledge in the art is not found in publications.⁹¹ Thus, the NRC’s report criticized the Federal Circuit for using a narrow suggestion test.

These concerns regarding the Federal Circuit’s alleged usage of a narrow suggestion test do not end with these two recent reports. Contemporary scholarship has concluded that the Federal Circuit requires the suggestion to come from a prior art reference. Professor Rebecca Eisenberg asserts that the court’s current approach “sidelines” the person having ordinary skill in the art in the nonobviousness analysis.⁹² Eisenberg concludes that the court “all but ignor[es] the statutory directive that judgments of nonobviousness be made from [the perspective of the person having ordinary skill in the art].”⁹³ Professor Arti Rai comes to a similar

88. *Id.* The focus here will be on the NRC’s discussion of business-method patents and nonobviousness. The NRC’s report on nonobviousness and gene sequence-related inventions focuses on the Federal Circuit’s requirement that a gene sequence invention is “only obvious and unpatentable when the obvious route to try is coupled with a ‘reasonable expectation of success.’” *Id.* at 91–92 (focusing on the Federal Circuit’s decisions in *In re Bell*, 991 F.2d 781 (Fed. Cir. 1993) and *In re Deuel*, 51 F.3d 1552 (Fed. Cir. 1995)). This part of the report does not focus on the court’s use of the suggestion test and therefore is not directly relevant to this Article.

89. *Id.* at 88.

90. *Id.* at 88–89. The NRC’s report further notes that even when business method information is published, it is mostly likely that “*non-obvious information*” is published. *Id.* at 90.

91. *Id.* at 89–90. The FTC’s report concurs with this analysis. See FED. TRADE COMM’N, *supra* note 9, ch. 4, at 40.

92. Eisenberg, *supra* note 14, at 888.

93. *Id.*

conclusion, emphasizing how the court's application of the narrow suggestion test severely limits the USPTO's review of patent applications.⁹⁴ Rai contends that the USPTO cannot rely upon its knowledge of the skill in the art, hampering a significant avenue by which it can establish a prima facie case of obviousness.⁹⁵

The Federal Circuit's jurisprudence on the suggestion test is also the subject of a pending case before the Supreme Court. In *KSR International Co. v. Teleflex, Inc.*, the Supreme Court will review the Federal Circuit's nonobviousness case law and, more specifically, its usage of the suggestion test.⁹⁶ All of the amicus briefs filed in support of KSR conclude that the current Federal Circuit case law implements too lax of a nonobviousness requirement. Most of the briefs specifically focus on the Federal Circuit's implementation of the suggestion test and argue that the test, as implemented, ignores any knowledge of a person having ordinary skill in the art.⁹⁷ The court requires that the nonobviousness analysis focus solely on the prior art and not on undocumented information known at the time of the invention.⁹⁸ The briefs conclude that the current suggestion test and low standard for nonobviousness result in bad patent policy and harm to innovation.⁹⁹ Based on the briefing and the certified question, the Supreme Court will look at the suggestion test in general, and specifically at whether the test ignores undocumented evidence of obviousness.¹⁰⁰

These recent critiques of Federal Circuit's nonobviousness jurisprudence are quite numerous and fairly harsh. A significant number of them rest on a basic initial assumption—the Federal Circuit employs a narrow suggestion test, limiting the grounds for

94. Arti K. Rai, *Allocating Power over Fact-Finding in the Patent System*, 19 BERKELEY TECH. L.J. 907, 912–17 (2004).

95. *Id.*

96. See Cisco Brief, *supra* note 13; Brief of IP Professors, *supra* note 13; Brief of the Progress & Freedom Foundation as Amicus Curiae in Support of Petitioner, *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Aug. 22, 2006), 2006 WL 2452361. The underlying Federal Circuit opinion, *Teleflex, Inc. v. KSR International Co.*, 119 F. App'x 282 (Fed. Cir. 2005), will be discussed in detail in Part IV.A.1, *infra*, of this Article. The arguments made in these briefs concerning Supreme Court case law and the statutory language of § 103, while part of the nonobviousness debate, fall beyond the scope of this Article.

97. See, e.g., Brief of IP Professors, *supra* note 13, at 10–16.

98. *Id.*

99. See, e.g., *id.* at 23–25.

100. See *KSR Int'l Co. v. Teleflex, Inc.*, 126 S. Ct. 2965, 2965 (2006).

suggestion to the content of prior art references. This inflexible application of the test is employed in both the review of patent infringement cases and opinions of the USPTO. This narrow suggestion test, the argument continues, creates a relaxed nonobviousness standard allowing technically obvious inventions to be deemed patentable and successfully enforced. Such a result upsets the balance between innovation and competition that the nonobviousness doctrine is tasked with maintaining.

IV. EXAMINATION OF RECENT FEDERAL CIRCUIT OPINIONS USING THE SUGGESTION TEST

The first step in understanding the Federal Circuit's recent usage of the suggestion test is to find the answer to a purely descriptive question. What are the exact contours of the suggestion test the court is employing? This question tests the validity of the initial assumption of recent criticism—that the court uses a narrow suggestion test and focuses only on documented suggestions.

To test this assumption, this Part reports the results of a descriptive study that looked at suggestion test jurisprudence over a three-year period.¹⁰¹ This study examined all written decisions of the Federal Circuit including a determination on the issue of nonobviousness.¹⁰² For the three-year period, sixty-nine opinions, considering ninety-two patents, made a determination on the issue of nonobviousness.¹⁰³

101. The exact three year period is from August 31, 2002 to September 1, 2005.

102. The cases were obtained by searching the Lexis Federal Circuit database over the defined three year period for cases that included the terms “(patent and infring!)” to gather appeals from patent infringement cases and the term “patent” in the “*In re*” cases to gather appeals from the USPTO. From this database of cases, those cases in which the court affirmed, reversed, or vacated a final decision on nonobviousness were considered.

Summary affirmances, “Rule 36” cases, were not included in the population because the specific basis for affirmance, and thus the court's usage of the suggestion test, could not be discerned. *See* FED. CIR. R. 36 (“[The] court may enter a judgment of affirmance without opinion, citing this rule, when it determines . . . an opinion would have no precedential value.”). In addition, only those decisions involving utility patents, as opposed to design or plant patents, were included. *See* 35 U.S.C. §§ 161–164, 171–173 (2000) (identifying patents for plants and designs).

103. Since this Article is focused on those specific cases that provide insight into the full contours of the suggestion test, only those cases will be cited specifically. However, the complete results of this study are on file with the author and available upon request.

Of this population of sixty-nine opinions, only twelve cases provide insight into the full contours of the suggestion test.¹⁰⁴ These are cases where the court discusses the suggestion test in the context of both documented and undocumented suggestions. The other opinions include twenty where the court never discussed the suggestion test and thirty-seven where the court was confronted with only prior art-based suggestion evidence.¹⁰⁵ The focus of this Part is, therefore, on the twelve cases that provide some insight into the descriptive question at hand.

A. Federal Circuit Opinions Using the Narrow Suggestion Test

The focus is initially on cases where the narrow suggestion test is apparently used.¹⁰⁶ This discussion includes Federal Circuit opinions reviewing appeals from both patent infringement decisions by district courts and decisions by the USPTO Board of Patent Appeals and Interferences (the “Board”) affirming final rejections of patent applications.

104. See *In re Battiston*, 139 F. App'x 281 (Fed. Cir. 2005); *Princeton Biochems., Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332 (Fed. Cir. 2005); *Syntex (U.S.A.) LLC v. Apotex, Inc.*, 407 F.3d 1371 (Fed. Cir. 2005); *ISCO Int'l, Inc. v. Conductus, Inc.*, 123 F. App'x 974 (Fed. Cir. 2005); *Teleflex, Inc. v. KSR Int'l, Co.*, 119 F. App'x 282 (Fed. Cir. 2005); *In re Beasley*, 117 F. App'x 739 (Fed. Cir. 2004); *Cardiac Pacemakers, Inc. v. Saint Jude Med., Inc.*, 381 F.3d 1371 (Fed. Cir. 2004); *In re Nysten*, 97 F. App'x 293 (Fed. Cir. 2004); *Ruiz v. A.B. Chance*, 357 F.3d 1270 (Fed. Cir. 2004); *In re Huston*, 308 F.3d 1267 (Fed. Cir. 2002); *N. Am. Oil Co. v. Star Brite Dist., Inc.*, 46 F. App'x 629 (Fed. Cir. 2002); *Novo Nordisk A/S v. Becton Dickinson & Co.*, 304 F.3d 1216 (Fed. Cir. 2002).

105. This later category of thirty-seven cases did not force the Federal Circuit to choose between the broad and narrow suggestion tests because the litigants only relied on prior art to establish a motivation to combine.

While these opinions do not give information on the contours of the court's suggestion test, they may provide insight into what litigants perceive to be the suggestion test the court employs—a narrow suggestion test. By relying on only prior art, the litigants may be signaling that they do not believe the court will accept anything else to establish a suggestion to combine. For anyone reading the court's opinions, such a belief is unlikely because, as will be demonstrated below, the Federal Circuit on a number of occasions over the three-year period found a suggestion to combine based on undocumented suggestion evidence.

106. There are four such opinions. See *Teleflex*, 119 F. App'x 282; *Beasley*, 117 F. App'x 739; *Cardiac Pacemakers*, 381 F.3d 1371; *Huston*, 308 F.3d 1267. For purposes of brevity, and to avoid redundancy, the discussion will detail the court's analysis in the first three opinions.

1. Appeals from patent infringement cases

Any discussion of the narrow suggestion test must start with the decision that is currently under review by the Supreme Court, *Teleflex, Inc. v. KSR International Co.*¹⁰⁷ Teleflex sued KSR alleging infringement of its patent directed to an adjustable pedal assembly for use with electronic throttle control in automobiles.¹⁰⁸ In due course, the district granted KSR summary judgment of invalidity, concluding that the patent was obvious.¹⁰⁹

The Federal Circuit, in an unpublished opinion, vacated the summary judgment of obviousness.¹¹⁰ The court based its decision, in part, on the conclusion that the district court erred as a matter of law.¹¹¹ The error was in the district court's reliance on the nature of the problem being solved to establish the necessary suggestion to combine.¹¹² The Federal Circuit recited the three bases for establishing a motivation to combine—articulating the broad suggestion test.¹¹³ The court then, however, indicated that in order to support a finding of obviousness, the prior art references must “address the precise problem that the patentee was trying to solve.”¹¹⁴ Here, the prior art was not directed at solving the same problem as Teleflex's patent—designing a “smaller, less complex, and less expensive electronic pedal assembly.”¹¹⁵ Instead, the art either addressed different problems—solving the “constant ratio problem” or “reducing wire chafing”—or suffered from the problem Teleflex's patent solves.¹¹⁶

Thus, while recognizing that suggestion can come from outside the prior art references, the court still required the suggestion, in this

107. 119 F. App'x 282.

108. *Id.* at 283–84. The relevant patent is U.S. Patent No. 6,237,565 (filed Aug. 22, 2000). Specifically, it asserted claim 4 of the patent describing an assembly where the electronic control is mounted to the support bracket of the assembly so as to avoid movement of the electronic control when the pedal's position is adjusted. *Teleflex*, 119 F. App'x at 284.

109. *Teleflex*, 119 F. App'x at 284.

110. *Id.* at 283.

111. *Id.* (“[T]he district court's analysis applied an incomplete teaching-suggestion-motivation test.”).

112. *Id.*

113. *Id.*

114. *Id.*

115. *Id.*

116. *Id.* at 288–89.

case, to have some basis in the references themselves.¹¹⁷ A suggestion established from the nature of the problem being solved needed to have some grounding in the prior art—the art needed to address the problem. Failure to establish such grounding in the art itself was a substantive error in the law—an improper implementation of the suggestion test.¹¹⁸ The court appears to conflate the nature of the problem category for a motivation to combine with the prior art category, substantively narrowing the suggestion test. The *Teleflex* case, therefore, can be read as implementing the narrow suggestion test.

The court's opinion in *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.* provides another arguable example of the narrow suggestion test.¹¹⁹ Cardiac Pacemakers, Inc. (“CPI”) sued St. Jude Medical, Inc. (“St. Jude”) alleging infringement of its patents covering implantable cardiac defibrillators.¹²⁰ The case was tried before a jury, which found that St. Jude had infringed one of the asserted patents and that the patent was valid.¹²¹ The district court granted, in part, St. Jude's motion for judgment as a matter of law (“JMOL”), finding the infringed patent's asserted claims obvious.¹²²

The Federal Circuit, on appeal, vacated the district court's JMOL and reinstated the jury's verdict of nonobviousness.¹²³ In discussing the evidence presented to the jury, the Federal Circuit's opinion focused on what suggestion or motivation came from the prior art. First, the court dismissed the “recognition of the problem” as a basis for finding the infringed patent obvious in this case.¹²⁴ The court concluded that the evidence showed that there was recognition only of the need for a solution and that “does not render obvious the achievement that meets that need.”¹²⁵ Then, to frame its inquiry, the court focused on “[w]hether the *prior art* provides the

117. *Id.*

118. *Id.*

119. 381 F.3d 1371 (Fed. Cir. 2004).

120. *Id.* at 1373–74. The patents specifically claimed defibrillators capable of performing multi-mode therapy—therapy that administers different defibrillation in response to different cardiac events. *Id.* at 1374.

121. *Id.* at 1374–75.

122. *Id.* at 1375. While not the focus of this Article's discussion, the district court also found the asserted claims invalid because of a failure to disclose the best mode. *Id.*

123. *Id.* at 1378.

124. *Id.* at 1377.

125. *Id.*

suggestion or motivation or teaching to select from prior knowledge and combine it in a way that would produce the invention at issue is a question of fact.”¹²⁶ The Federal Circuit found factual support for the conclusion of no suggestion or motivation in the testimony of one of CPI’s experts.¹²⁷ The court noted that the expert “stress[ed] that no reference teaches combining” the individual pieces of prior art “in a single device, or states that it is feasible to do so.”¹²⁸

This focus on the prior art and suggestion or motivation coming from the prior art implies that the court was using the same narrow suggestion test that would later be used in *Teleflex*. In *Cardiac Pacemaker*, the Federal Circuit appears to dismiss the nature of the problem as being a basis for a suggestion to combine. Then, the court finds substantial evidence to support the jury’s finding of nonobviousness in the fact that the prior art provided no suggestion. The court’s opinion appears to reject the full contours of the broad suggestion test and, like *Teleflex*, endorse the narrow suggestion test.

2. Appeals from the USPTO

Support for the existence of a narrow suggestion test can also be found in recent Federal Circuit cases that review appeals from USPTO decisions. The court’s unpublished opinion in *In re Beasley* provides a good example of the narrow suggestion in the USPTO context.¹²⁹ In *Beasley*, the court reviewed the rejection of a patent application’s claims “directed to the generation of images or markings on a video display screen using a light pen,” which included “mapping the display screen into memory on a point-by-point basis.”¹³⁰

The examiner found the application invalid because of obviousness in light of three prior art references.¹³¹ One reference

126. *Id.* at 1378 (citing *Winner Int’l Royalty Corp. v. Wang*, 2002 F.3d 1340, 1348 (Fed. Cir. 2000)) (emphasis added).

127. *Id.* at 1377.

128. *Id.*

129. 117 F. App’x 739, 743–45 (Fed. Cir. 2004).

130. *Id.* at 740. *Beasley*’s application was U.S. Patent Application 07/636,839, filed Jan. 2, 1991. *Id.* The patent’s independent claims specifically required “mapping the display screen into the memory on a point-by-point basis . . . to provide a one-to-one correspondence” between the points on the screen and the memory locations. *Id.*

131. *Id.* at 740–41. The three references were U.S. Patent No. 3,832,485 (“Pieters”) combined with either U.S. Patent No. 3,973,245 (“Belser”) or U.S. Patent No. 4,847,604 (“Doyle”). *Id.*

disclosed the creation of demarcations on images using a light pen.¹³² It failed, however, to disclose the point-by-point mapping limitation claimed by the application at issue.¹³³ The examiner concluded, however, that one of two other references disclosed “a conventional bit map memory mapping a display screen into the memory on a point by point basis.”¹³⁴ The examiner also concluded that “it would have been obvious to one of ordinary skill in the art to substitute” the prior art “bit map memory” for the memory used in the light pen prior art.¹³⁵ A person of ordinary skill in the art would be motivated to make such a change, the examiner concluded, “because image data stored in the bit map format can be read out rapidly.”¹³⁶ It was also noted that it was “well known in [the] computer display art to substitute a bit map memory for a conventional memory such as the memory used” in the light pen prior art.¹³⁷ Beasley appealed to the Board, and the Board maintained the examiner’s obviousness rejection.¹³⁸

On appeal, the Federal Circuit concluded that there was no substantial evidence to support a *prima facie* case of obviousness. The court first noted that “the advantages of one type of memory over another that had been advanced by the examiner and the Board for the express purpose of showing motivation for the proposed substitution have been set forth without any supporting citations to relevant portions of either [the prior art], or any other authority.”¹³⁹ The court faulted the Board for relying on “the examiner’s and its own knowledge as skilled artisans.”¹⁴⁰ The court also focused on the lack of “a citation of any relevant, identifiable source of information justifying” the substitution of the light pen prior art’s memory with the memory disclosed in the other two pieces of prior art.¹⁴¹

132. *Id.* (citing the Pieters reference).

133. *Id.*

134. *Id.* at 740–41. As the court noted, Belser “concerns a method and apparatus for ‘converting information in coded form into a dot matrix or raster form,’” while Doyle “is directed to a system that allows a user to point to a feature on an image and cause descriptive information . . . to appear.” *Id.* at 741 n.3 (citing the relevant patents).

135. *Id.* at 741.

136. *Id.* (quoting the examiner’s office action).

137. *Id.* at 741 (quoting the examiner’s office action).

138. *Id.* at 741–42.

139. *Id.* at 743.

140. *Id.* at 743–44.

141. *Id.* at 744.

The analysis in *Beasley* appears to be very similar to that of *Teleflex* and *Cardiac Pacemaker*. The Federal Circuit does not explicitly reject the notion that a suggestion can come from general knowledge in the art or the nature of the problem being solved. But, the court does reject these grounds *de facto* by appearing to require a suggestion to be tied in some way to the prior art—again, conflating the three separate prongs of the suggestion test into one, focused solely on prior art. *Beasley*, when viewed with *Teleflex* and *Cardiac Pacemaker*, appears to establish a significant, substantive change in the law, moving away from the traditional, broad suggestion test to a narrow test.

B. Federal Circuit Opinions Using the Broad Suggestion Test

After looking at such recent decisions as *Teleflex*, *Cardiac Pacemaker*, and *Beasley*, it is not hard to see why commentators have come to the conclusion that the Federal Circuit applies a narrow suggestion test. However, the full results of my descriptive study indicate that the court is not always so focused on prior art when looking for a viable suggestion or motivation. Opinions during the study's three-year period allow a suggestion to be based solely on undocumented grounds coming from either general knowledge of those skilled in the art or the nature of the problem being solved.¹⁴² Full usage of the traditionally recited suggestion test—the broad suggestion test—can be found in Federal Circuit jurisprudence.

This section discusses some of the cases that establish the broad suggestion test's continued existence in detail below. As with the previous discussion, this section examines appeals both from patent infringement decisions and final rejections of patent applications by the USPTO.

142. There are eight cases where the court uses the broad suggestion test. *See, e.g., In re Battiston*, 139 F. App'x 281 (Fed. Cir. 2005); *Syntex (U.S.A.) LLC v. Apotex, Inc.*, 407 F.3d 1371 (Fed. Cir. 2005); *Princeton Biochemical, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332 (Fed. Cir. 2005); *ISCO Int'l, Inc. v. Conductus, Inc.*, 123 F. App'x 974 (Fed. Cir. 2005); *In re Nysten*, 97 F. App'x 293 (Fed. Cir. 2004); *Ruiz v. A.B. Chance*, 357 F.3d 1270 (Fed. Cir. 2004); *Novo Nordisk A/S v. Becton Dickinson & Co.*, 304 F.3d 1216 (Fed. Cir. 2002); *N. Am. Oil Co. v. Star Brite Dist., Inc.*, 46 F. App'x 629 (Fed. Cir. 2002). As with the narrow suggestion test cases, only a subset (five) of these cases will be discussed in detail.

I. Appeals from patent infringement cases

The court's analysis in *Princeton Biochemical, Inc. v. Beckman Coulter, Inc.* provides the first example of the court using the broad suggestion test.¹⁴³ Princeton Biochemical sued Beckman Coulter alleging infringement of Princeton's patent on a capillary electrophoresis device.¹⁴⁴ The jury found the patent infringed and valid.¹⁴⁵ The district court found the jury's verdict unsupported by substantial evidence and, accordingly, granted JMOL that the patent claims were invalid for reasons of obviousness.¹⁴⁶

On appeal, the Federal Circuit affirmed the district court's grant of JMOL.¹⁴⁷ On the issue of obviousness, the court noted that all of the elements of the claim were disclosed in the prior art, but that this "does not render a claim obvious."¹⁴⁸ The court looked at the evidence regarding a suggestion or motivation to combine, but it did not focus solely on the prior art. Instead, the court agreed with the district court's finding of a suggestion to combine in the "knowledge of those skilled in the art at the time."¹⁴⁹ The court specifically approved of the testimony from one of Princeton's expert witnesses, Dr. Jorgenson. Dr. Jorgenson testified that combining the claimed elements of coiling and supporting the coils of prior art capillaries "was within the knowledge of one of skill in the art."¹⁵⁰ Notably, the court did not require such knowledge be documented in a prior art reference.

The court also approved of the district court's finding of a suggestion in "the nature of the problem."¹⁵¹ The problem the invention addressed was the lengthening and securing of the prior art capillaries.¹⁵² Dr. Jorgenson testified that the nature of the

143. 411 F.3d 1332.

144. *Id.* at 1334. The capillaries referenced are tubes usually made of quartz. *Id.* "Electrophoresis is one method available for the investigation of biological materials, and is an efficient procedure for the separation and detection of proteins and other matter." *Id.*

145. *Id.* at 1333-34.

146. *Id.*

147. *Id.* at 1334.

148. *Id.* at 1338.

149. *Id.*

150. *Id.*

151. *Id.* at 1338-39.

152. *Id.*

problem “called for the [claimed] combination.”¹⁵³ He stated that a person with ordinary skill in the art, in order to both lengthen and secure the capillary, “would know to coil a capillary” and secure it to a support because “you don’t want a coil floating around without some kind of support.”¹⁵⁴ While the Federal Circuit discussed some prior art references, the court clearly credited Dr. Jorgenson’s testimony as supporting, by itself, a finding of suggestion based on the nature of the problem being solved. Teachings from the prior art were not required to find such a suggestion.¹⁵⁵

Further evidence that the broad suggestion test is still employed by the Federal Circuit can be found in its opinion in *Syntex (U.S.A.) LLC v. Apotex, Inc.*¹⁵⁶ In *Syntex*, the Federal Circuit was reviewing the results of a bench trial that concluded, in part, that the asserted patent claims on sterile, preserved eye drops were valid and had been infringed.¹⁵⁷ The court vacated and remanded the finding of validity because the district court failed to correctly consider evidence regarding the issue of nonobviousness.¹⁵⁸

Of particular relevance to the lower court’s reapplication of the suggestion test on remand, the Federal Circuit asked the district court to reconsider the testimony of one of Apotex’s experts.¹⁵⁹ The court noted that the expert presented a “theory of why a person of skill in the art would have not found it unusual” to modify the prior art to make the claimed eye drops.¹⁶⁰ Apotex’s expert based this conclusion on “a scientific rationale” and the knowledge of those skilled in the art.¹⁶¹

The Federal Circuit also uses the broad suggestion test in *Ruiz v. A.B. Chance Co.*¹⁶² Ruiz filed a declaratory judgment claim that it had not infringed A.B. Chance Co.’s patents on a screw anchor

153. *Id.* at 1339.

154. *Id.*

155. *Id.*

156. 407 F.3d 1371, 1379–83 (Fed. Cir. 2005).

157. *Id.* at 1373.

158. *Id.* at 1379–83, 1385.

159. *Id.* at 1380–82.

160. *Id.* at 1381.

161. *Id.* at 1381–82. Apotex’s expert also based this conclusion on teachings from the references. *Id.* However, the court specifically noted the independent, non-art bases for the expert’s conclusion of suggestion. *Id.*

162. 357 F.3d 1270, 1275–77 (Fed. Cir. 2004).

system for underpinning foundations.¹⁶³ As the result of a bench trial, the district court found that although the patents were infringed, the claims were invalid as obvious.¹⁶⁴

In the case's second appeal to the Federal Circuit, the court addressed the district court's finding of obviousness.¹⁶⁵ Specifically, the court examined the district court's finding of a motivation to combine on the nature of the problem of underpinning foundations.¹⁶⁶ The court noted that the "record . . . does not feature an express written teaching in the art to make [the] combination" of the two pieces of prior art to render the asserted claims obvious.¹⁶⁷ However, it is not the law "that an express, written motivation to combine must appear in prior art references before a finding of obviousness. Stated differently, this court has consistently stated that a court or examiner may find a motivation to combine prior art references in the nature of the problem to be solved."¹⁶⁸ The Federal Circuit then approved the district court's reliance on evidence that "a person seeking to solve [the] exact same problem" solved by the claimed invention "would consult the references and apply their teachings together."¹⁶⁹

The court's opinion in *Ruiz* is particularly insightful because it addresses head on the criticism surrounding the suggestion test. The court clearly states that a suggestion or motivation may come from outside the prior art itself.¹⁷⁰ And then the court applies this stated doctrine, basing its affirmance on something other than prior art.¹⁷¹ *Ruiz*, combined with *Princeton Biochemical* and *Syntex*, establishes that the Federal Circuit, at least in some instances, employs a broad suggestion test.¹⁷²

163. *Id.* at 1273.

164. *Id.* at 1274.

165. *Id.* at 1275-77.

166. *Id.*

167. *Id.* at 1276-77.

168. *Id.* at 1276 (citing *Display Techs., Inc. v. Paul Flum Ideas, Inc.*, 60 F. App'x 787 (Fed. Cir. 2002); *In re Haung*, 100 F.3d 135, 139 n.5 (Fed. Cir. 1996); *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573 (Fed. Cir. 1996)).

169. *Ruiz*, 357 F.3d at 1277.

170. *Id.* at 1276.

171. *Id.* at 1277.

172. *Id.* at 1276; *Syntex (U.S.A.) LLC v. Apotex, Inc.*, 407 F.3d 1371, 1379-83 (Fed. Cir. 2005).

2. Appeals from the USPTO

There are also cases involving appeals from the USPTO that apply a broad suggestion test. For example, the Federal Circuit's decision in *In re Battiston* utilizes the traditional, broad suggestion test.¹⁷³ *Battiston* involved an appeal from a sustained final rejection finding specific claims directed toward a "splash resistant pan for use with a commode to aid elderly or infirmed persons who cannot use a conventional porcelain toilet" invalid.¹⁷⁴ The claims at issue required, in part, a "pan having an upper generally rectangular rim."¹⁷⁵

The examiner rejected the application's claims based on prior art cited in the background of the application in combination with the two other patents.¹⁷⁶ Two of the pieces of prior art each disclosed all of the elements of the application's claims except the required "rectangular rim."¹⁷⁷ Another disclosed "a pan comprising an upper rim and four planar sides."¹⁷⁸ Based on this art, the examiner and Board found the claims obvious.¹⁷⁹

The Federal Circuit affirmed the finding of obviousness.¹⁸⁰ In response to *Battiston's* argument that the USPTO used hindsight in rejecting his claims, the Federal Circuit found that substantial evidence supported the USPTO's finding of a suggestion to combine the references.¹⁸¹ The court found such a suggestion for "a commode configured with a rectangular opening, flow[ing] from the ordinary knowledge of one skilled in the art."¹⁸²

While the opinion is not long on analysis, the court clearly applies a broad suggestion test. The court explicitly bases its conclusion of obviousness on an undocumented suggestion—general knowledge in the art.¹⁸³ The court fails, however, to articulate the Board's specific analysis as to how such knowledge leads to combining the teachings of a rectangular rim with the other prior

173. 139 F. App'x 281 (Fed. Cir. 2005).

174. *Id.* at 282.

175. *Id.* at 283.

176. *Id.*

177. *Id.*

178. *Id.*

179. *Id.*

180. *Id.* at 285.

181. *Id.* at 283–84.

182. *Id.* at 284 (citing *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

183. *Id.*

art. But the court still finds the Board's analysis and reliance on knowledge in the art sufficient by itself.¹⁸⁴ A specific reference was not required to support a finding of obviousness.¹⁸⁵

The Federal Circuit also applied a broad suggestion test in *In re Nylen*.¹⁸⁶ In *Nylen*, the court reviewed the Board's affirmance of obviousness rejections of a patent application claiming a device that applies both a herbicide and a dye to weeds.¹⁸⁷ The application's claims were found obvious in light of prior art references directed to herbicide applicators and the combining of dye with agricultural chemicals.¹⁸⁸ The Federal Circuit affirmed this rejection.¹⁸⁹ The court noted that "the references do not themselves indicate that they should be combined."¹⁹⁰ The court concluded, however, that "the nature of the problem to be solved . . . would undoubtedly lead a person of ordinary skill in the art to consult prior art" and make the claimed device.¹⁹¹ The court's analysis in *Nylen* and *Battiston* indicates that, as with appeals from patent infringement cases, the Federal Circuit is using the broad suggestion test, at least in some instances.

V. RESOLVING THE APPARENT INCONSISTENCY—VIEWING THE SUGGESTION TEST AS A "RULE OF EVIDENCE"

At first blush, some panels of the Federal Circuit employ a narrow suggestion test while others employ a broad test, creating an apparent inconsistency in the court's nonobviousness precedents. This results in some panels focusing on only prior art as a basis for a finding of suggestion, while others allow information other than prior art to establish a suggestion to combine.¹⁹² The existence of such an inconsistency is not surprising because this is not the first

184. *Id.* at 284.

185. *Id.* As will be discussed in more detail in Part V, *infra*, the holding in *Battiston* appears to contradict the strict requirement for a citable prior art reference discussed in *Beasley*.

186. 97 F. App'x 293, 294 (Fed. Cir. 2004).

187. *Id.* at 293–94. The device helps the user to direct the herbicide to weeds and thus avoid damaging nearby plants by creating visual confirmation of the area sprayed. *Id.* at 294.

188. *Id.*

189. *Id.*

190. *Id.*

191. *Id.*

192. Compare *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 381 F.3d 1371, 1375–78 (Fed. Cir. 2004), with *Princeton Biochemical, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1338–39 (Fed. Cir. 2005).

time the Federal Circuit has developed two opposing articulations of a particular patent law doctrine.¹⁹³ In fact, such a scenario justifies the Supreme Court's taking the *Teleflex* case in order to, at the very least, resolve the conflict in Federal Circuit case law and clarify the contours of the suggestion test.¹⁹⁴

However, the focus of the discussion so far has been on determining the exact contours of the substantive standard governing the suggestion test and the nonobviousness requirement in general. That is, what standard or rule governs the legal determination of nonobviousness? This analysis overlooks the possibility that the suggestion test is not operating solely on the substantive law plane. The suggestion test may also perform a procedural-like function in patent law. More specifically, the Federal Circuit may be focusing on the type of evidence being presented to prove a suggestion to combine. This Part investigates whether the suggestion test contains an evidentiary-like aspect.¹⁹⁵

To discern whether an evidentiary-like component to the suggestion test exists, both the narrow and broad suggestion test cases are revisited.¹⁹⁶ This Part first examines the narrow suggestion

193. A perfect example of this is the claim construction context, where the court was employing at least two different claim interpretation methodologies. See Christopher A. Cotropia, *Patent Claim Interpretation Methodologies and Their Claim Scope Paradigms*, 47 WM. & MARY L. REV. 49, 83–90 (2005) (detailing the specification methodology and the heavy presumption methodology). The court has since chosen a single methodology. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1320–22 (Fed. Cir. 2005) (en banc) (adopting the specification methodology), *cert. denied*, 126 S. Ct. 1332 (2006).

194. Petitioners for certiorari asked for much more, however. See, e.g., Cisco Brief, *supra* note 13, at 14–16 (asking the Court to transfer the nonobviousness determination back to the province of the courts).

195. Taking an evidentiary look at substantive area of intellectual property law is not novel. See, e.g., Douglas Lichtman, *Copyright as a Rule of Evidence*, 52 DUKE L.J. 683 (2003) (arguing that some copyright doctrines are formulated to exclude cases whose evidentiary complexities make them, on balance, socially costly). In fact, Robert Merges has discussed matters of evidence regarding the Federal Circuit's case law surrounding secondary factors of nonobviousness. Merges, *supra* note 8, at 833–34 (discussing whether the lack of nexus between a secondary factor and the invention either “undercuts the *relevance* of the secondary consideration, and hence its admissibility, or whether it merely detracts from the *weight* of that consideration?”). Neither of these articles, however, evaluates the evidentiary aspects of the substantive law under the evidence theory of truth maximization. See *infra* Part VI (performing such an evaluation).

196. One can argue that, in order to truly discern the full scope of this evidentiary-like rule, the underlying district court cases or Board appeals should also be examined to see exactly what type of evidence was presented. The Federal Circuit could simply be characterizing the evidence in its opinions to better serve the result it wants to obtain. Unobserved reasoning that

test cases, focusing on what evidence of undocumented suggestion the parties presented that the Federal Circuit either ignored or rejected. This evidence is then compared to the undocumented suggestion evidence the court accepted in the broad suggestion test cases. From this comparison, a basic “rule of evidence” emerges.¹⁹⁷

the data set being used would simply not pick up could exist, such as a rationale or bias not expressly set forth in the written opinions examined. See R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105, 1128 (2004) (recognizing the possibility of unobserved reasoning in a study concerning the Federal Circuit’s claim interpretation jurisprudence). In addition, the data set cannot take into account behavior on the litigants’ part. The types of evidence and argumentation presented to the court are the product of the litigants. See, e.g., George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 2 (1984) (noting that analysis based on appellate cases is incomplete because only a “peculiar sample of cases” actually are tried and appealed). For example, as previously noted, many of the suggestion test cases during the three year period studied include only prior art presented by the litigants as evidence of suggestion. See *supra* note 105. The opinions thus cannot be viewed as “independent expressions of methodology or reasoning.” Wagner & Petherbridge, *supra*, at 1129.

The Federal Circuit opinions, however, are the best data set from which to discern an evidentiary rule, if there is one. Certainly these concerns limit the results of this descriptive inquiry. But the text of the opinions—the observed results—are what critics of the Federal Circuit’s jurisprudence are focusing on. See, e.g., FED. TRADE COMM’N, *supra* note 9, ch. 4, at 12–14; Brief of IP Professors, *supra* note 13, at 5–9. In addition, due to the nature of the common law, the opinion text is what establishes the rules and standards governing future nonobviousness decisions. See Pintip Hompluem Dunn, Note, *How Judges Overrule Speech Act Theory and the Doctrine of Stare Decisis*, 113 YALE L.J. 493, 498 (2003) (“[I]n the common law . . . the only texts that judges can reference are the texts of earlier judicial opinions.”). Those unobserved results stay unobserved. Furthermore, if the Federal Circuit has a particular view on how the suggestion test should be tailored and wants that view to have some effect on patent observers, one can validly assume that it would make that view known through its opinions and its handling of evidence presented in those cases. Finally, the behavior of litigants, while necessarily affecting the data, may simply reinforce the court’s rule in this area. Presumably, litigants present evidence and arguments they believe will allow their clients to prevail. In order to prevail, the evidence and argument must fit within the rules and standards expressed in the court’s earlier opinions. Thus, litigant behavior can be viewed as a feedback mechanism that simply further evidences what the courts are doing.

197. The phrase, “rule of evidence,” will be used in this Article as shorthand for the evidentiary-like aspect of the suggestion test being discussed. The use of the label “rule of evidence” is not meant to indicate that rule being discussed is a rule of evidence in the traditional sense. It is not part of, or born from, the Federal Rules of Evidence. Nor is its application part of a specific evidentiary proceeding such as a motion in limine or reviewed by the Federal Circuit for an abuse of discretion. See, e.g., FED. R. EVID. 103(c) (noting that rulings on the admissibility of evidence should be made outside the presence of the jury); Gen. Elec. Co. v. Joiner, 522 U.S. 136 (1997) (holding that the standard for review of admission of scientific evidence is abuse of discretion). The rule, while arguably analogous to Federal Rule of Evidence 702, is not similar to any established rule of evidence. See *infra* Part VI.A.3 (noting that the suggestion test’s rule of evidence helps to increase reliability in a way similar to Rule 702). As will become apparent *infra*, the rule arguably operates more like a burden of

The court is not veering from the basic substance of the broad suggestion. It is simply encountering cases in which none of the undocumented suggestion evidence is detailed and thorough enough to be considered in the suggestion test analysis. Testimony or administrative correspondence is only admissible if it includes detailed analysis as to how a suggestion arises from the nature of the problem or general knowledge in the art.¹⁹⁸ Once this “rule of evidence” is initially defined, another pass is made to see if this rule is refined in any way by the Federal Circuit.

A. Evidence of an Undocumented Suggestion Must Include Detailed and Thorough Analysis

Teleflex Inc. v. KSR International Co., an apparent narrow suggestion test case, will act as a starting point in the search for a “rule of evidence.”¹⁹⁹ In *Teleflex*, the only undocumented evidence on the issue of suggestion presented by KSR was a declaration from one of the vice presidents of the accused infringer.²⁰⁰ The declaration failed to speak to “whether one of ordinary skill in the art would have been motivated” to combine the prior art.²⁰¹ Instead, the declaration only indicated that the prior art “could have been” modified to practice the invention.²⁰² The declaration failed to provide a “specific motivation to combine” to support a finding of obviousness.²⁰³ Without the declaration, the accused infringer could rely only on the prior art, and, as the court concluded, the prior art was not directed toward the nature of the problem being solved.²⁰⁴

proof, raising the standard for evidence of undocumented suggestion, rather than a rule of evidence. The rule does, however, have many evidentiary links as well. And thinking of the rule in an evidentiary fashion prompts, in some ways, evaluating the rule under evidence theory, which has benefits in its own right. See *infra* Part VII.

Thus, “rule of evidence” is simply a label meant to conjure up general notions of evidence theory and nothing more. Answering whether the rule embodies all aspects of a true rule of evidence is not necessary for any of the analysis to follow.

198. The administrative correspondence mentioned here is communications to and from the USPTO during patent prosecution.

199. 119 F. App’x 282 (Fed. Cir. 2005), *cert. granted*, 126 S. Ct. 2965 (2006).

200. *Id.* at 289.

201. *Id.*

202. *Id.*

203. *Id.* The declaration did speak of a particular motivation, but the identified motivation would not have combined the prior art in such a way as to practice the invention. *Id.*

204. *Id.* at 288–89.

A similar situation presented itself in *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*²⁰⁵ The accused infringer presented nothing more than argument to attempt to prove a suggestion to combine. As in *Teleflex*, the accuser relied on the nature of the problem being solved to establish a suggestion.²⁰⁶ As the court noted, the prior art established, at best, a recognition of the general problem the invention addressed.²⁰⁷ No evidence pointed to a “motivation to create [the patented] cure.”²⁰⁸ The accuser presented no testimony to support a finding that the nature of the problem being solved provided a suggestion to combine.²⁰⁹

These two cases were initially characterized as using a suggestion test substantively different from the broad suggestion test.²¹⁰ The narrow suggestion test requires that, regardless of the evidence presented by the litigants, the court is to accept only prior art to establish a suggestion to combine. In neither case, however, does the court explicitly disavow an undocumented basis for finding a suggestion. In fact, the court in *Teleflex* specifically recites the broad suggestion test before beginning its analysis.²¹¹

Viewing these cases as making evidentiary-like decisions can better explain the court’s actions.²¹² Undocumented avenues to establishing a suggestion to combine were substantively available to the litigants—the broad suggestion test was still in play. In these two cases the litigants merely failed to present anything on suggestion, other than art, that rose to the requisite level of admissibility. Either testimony on the issue was not presented, as in *Cardiac Pacemaker*, or the testimony did not contain a detailed analysis as to the

205. 381 F.3d 1371, 1377 (Fed. Cir. 2004).

206. *Id.* at 1377–78.

207. *Id.* at 1377. There was only a “[r]ecognition of the problem of treating complex heart arrhythmias.” *Id.* This established only that there was a need for some type of solution. *Id.*

208. *Id.*

209. *See id.* at 1377–78.

210. *See supra* Part IV.A.1.

211. *Teleflex, Inc. v. KSR Int’l Co.*, 119 F. App’x 282, 285 (Fed. Cir. 2005), *cert. granted*, 126 S. Ct. 2965 (2006). In fact, to support its recitation of the broad suggestion test, the court cites *Ruiz*, which clearly applies the broad suggestion test. *Id.* (citing *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 665 (Fed. Cir. 2000)).

212. Again, this may not be an actual rule of evidence, but its impact is similar, and considering it as an evidentiary creature facilitates the focus on the actual contents of the suggestion evidence. *See supra* notes 196–97.

undocumented suggestion, as in *Teleflex*. The court had prior art as the only “admissible” evidence on suggestion to consider.

The existence of an evidentiary-like rule and the specific contours of the rule become even more apparent when taking a second look at some of the broad suggestion test cases previously discussed.²¹³ These cases give examples of what types of undocumented suggestion evidence courts can consider in the suggestion test analysis.

In *Princeton*, the court affirmed a district court’s finding of obviousness that was based on suggestions coming from two undocumented sources: general knowledge in the art and the nature of the problem being solved.²¹⁴ This shows the court’s willingness to apply the broad suggestion test substantively. Even more interesting, however, is that the court concentrated on the testimony of a fact witness, Dr. Jorgenson, in finding an undocumented suggestion.²¹⁵

In its discussion of a suggestion from “the knowledge of those skilled in the art at the time of [the] invention,” the court pointed out that “Dr. Jorgenson supplied detailed analysis of the prior art *and* the reasons that one of ordinary skill would possess knowledge and motivation to combine these simple elements.”²¹⁶ The court also focused on the “detailed” testimony of Dr. Jorgenson when concluding that “the nature of the problem supplies a motivation to combine th[e] prior art references.”²¹⁷ Dr. Jorgenson identified what specific solutions the nature of the problem being solved called for and indicated how “one of ordinary skill in the art at the time” would have, accordingly, combined the prior art to make the patented invention.²¹⁸ Dr. Jorgenson’s testimony, specifically the thoroughness of his testimony, allowed the court to base its finding of obviousness on an undocumented suggestion.²¹⁹

213. See *supra* Part IV.B.

214. *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1338–40 (Fed. Cir. 2005).

215. *Id.* at 1337–39.

216. *Id.* at 1338 (emphasis added).

217. *Id.*

218. *Id.* at 1339. Dr. Jorgenson “observed that the problem called for coiled electrophoresis tubes, including capillary tubes, secured in place in a variety of ways,” and that it would have been obvious to “coil a capillary to save space” and to secure the “capillary tube to a support member.” *Id.*

219. *Id.*

The court engaged in a similar analysis in *Syntex* when it asked the district court on remand to consider a suggestion to combine based on something other than a prior art reference.²²⁰ In *Syntex*, the court found a fact issue as to whether an anti-inflammatory eye drop invention was nonobvious, based in part on a suggestion coming from general knowledge in the art.²²¹ Evidence of an undocumented suggestion came from testimony of an expert—Dr. Mitra.²²² Dr. Mitra testified to “his theory of why a person of skill in the art would not have found it unusual” to combine the prior art in such a way as to practice the invention.²²³ While relying in part of the teachings of the prior art, “[Dr. Mitra] also set forth a scientific rationale for” why one of ordinary skill at the time of the invention would have made the same selections the patentee had made.²²⁴ Dr. Mitra also pointed out that knowledge of certain chemical properties of “the claimed subject matter would cause a person, ‘as a matter of science’ to ‘go into,’” and thus combine, aspects of the prior art.²²⁵

Again, as in *Princeton*, the court allowed full use of the broad suggestion test. And, as in *Princeton*, accompanying the use of the broad suggestion test was undocumented suggestion evidence in the form of specific and detailed testimony. The court emphasized the details of Dr. Mitra’s testimony in *Syntex* by focusing on the completeness of his testimony. Significant was not just the fact that an expert testified to the ultimate conclusion of obviousness or even that an undocumented suggestion to combine existed. The testimony in *Syntex*, and in *Princeton*, went one step further. It explained why and how general knowledge in the art or the nature of the problem being solved provided a suggestion to combine the art in a specific way in order to render the invention obvious.

The evidence in *Princeton* and *Syntex* contains what the evidence in *Teleflex* and *Cardiac Pacemaker* lacked—detailed and thorough testimony. When comparing the analysis in these cases, it becomes apparent that the Federal Circuit is looking for a suggestion to combine from any of the three categories of the broad suggestion

220. *Syntex (U.S.A.) LLC v. Apotex, Inc.*, 407 F.3d 1371, 1380–82 (Fed. Cir. 2005).

221. *See id.* at 1378–79.

222. *Id.*

223. *Id.* at 1381.

224. *Id.* The court recites Dr. Mitra’s complete reasoning as to why there is a scientific rationale for a suggestion to combine in a footnote to the opinion. *Id.* at 1381 n.11.

225. *Id.* at 1381–82.

test. Once the reasoning in *Teleflex* and *Cardiac Pacemaker* is examined more closely, one can see that the court was not exclusively focused on prior art. The substantive law of suggestion did not change to limit the inquiry to documented suggestions.²²⁶ Instead, the court is exercising an evidentiary-like aspect of the suggestion test by examining the contents of the undocumented suggestion evidence. Substantively, a suggestion to combine can be proven by undocumented means. However, an additional requirement for undocumented suggestions is at work. The court is looking for the detail and specificity it found in *Princeton* and *Syntex* to allow such evidence to be considered.

The same evidentiary requirement found in the patent infringement cases is more directly articulated in the USPTO cases. For example, the court's analysis in *Beasley* specifically talks of the evidentiary requirements of establishing a suggestion through undocumented avenues.²²⁷ The court rejected the USPTO's conclusion that those with skill in the art would have known the advantages of conventional computer memory over bit map memory, and thus would have readily substituted one for the other.²²⁸ This conclusion was rejected because the suggestion "appear[ed] unaccompanied by any indication of its origins."²²⁹ "Neither the Board nor the examiner ha[d] identified in the record any source of information—either from the references cited or otherwise" to support this fact.²³⁰

In other words, the court in *Beasley* looked for the same detailed analysis it found in *Princeton* and *Syntex*. Simple conclusory statements by patent examiners or the Board, both of whom are required to have technical expertise,²³¹ were not enough. Any evidence of an undocumented suggestion must consist of more than a mere conclusion. For such information to be considered—to be admissible—it must demonstrate a requisite level of rigor and detail.

226. See *Teleflex, Inc. v. KSR Int'l Co.*, 119 F. App'x 282, 285 (Fed. Cir. 2005), cert. granted, 126 S. Ct. 2965 (2006).

227. *In re Beasley*, 117 F. App'x 739, 743–44 (Fed. Cir. 2004).

228. *Id.* at 743.

229. *Id.*

230. *Id.*

231. See *id.* at 745 (Dyk, J., dissenting); see also *In re Lee*, 277 F.3d 1338, 1345 (Fed. Cir. 2002) ("The patent examiner and the Board are deemed to have experience in the field of the invention.").

The decision in *Beasley* can be viewed as an evidentiary decision. The USPTO provided statements relevant to a finding of an undocumented suggestion. The problem is that the statements the USPTO relied on did not rise to the level of admissibility. While this has the de facto impact of limiting the grounds for suggestion to the prior art itself, this is a secondary effect of the “rule of evidence,” not a change in substantive law. The broad suggestion test still applies, but, as in *Teleflex* and *Cardiac Pacemaker*, no “admissible” evidence is presented to support an undocumented suggestion.

Admittedly, the origins of this discussion in *Beasley* are grounded in administrative law. The court in *Beasley* cites its earlier decision in *In re Lee* for the proposition that the USPTO must ground its decisions in “objective evidence of record.”²³² In *Lee*, the court came to this conclusion because the Administrative Procedure Act (APA) institutes a “reasoned decisionmaking” scheme, and in order to ensure a “sound decision” has been reached, the administrative agency must “articulate[] the reasons for that decision.”²³³ Thus, to ensure proper review of the USPTO’s decision of obviousness, the USPTO “must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency’s conclusion.”²³⁴

However, the rule of law established in *Lee* and used in *Beasley* is still procedural in nature, not substantive. Thus, the reasoning in *Lee* is already much closer to evoking evidence law—another procedural area of law—than substantive law. In addition, the need for effective judicial review of an agency’s actions entails, at least in part, a determination of whether the agency’s decision is supported by evidence that reaches a specific level—substantial evidence.²³⁵ Finally, the *Lee* decision clearly sets forth evidentiary standards. Any factual determination by the USPTO must be “based on objective evidence of record.”²³⁶ Common knowledge and common sense are not

232. *Beasley*, 117 F. App’x at 745 (Dyk, J., dissenting) (citing *Lee*, 277 F.3d at 1343).

233. *Lee*, 277 F.3d at 1342 (quoting *Allentown Mack Sales & Serv., Inc. v. Nat’l Labor Relations Bd.*, 522 U.S. 359, 374 (1998)).

234. *Id.* at 1344.

235. 5 U.S.C. § 706(2) (2005) (setting forth the standards of review). The APA specifically requires an agency’s factual findings be supported by substantial evidence. *Id.* § 706(2)(E).

236. *Lee*, 277 F.3d at 1343.

substitutes for such evidence.²³⁷ These statements are directed at the types of evidence an agency can rely on and, thus, establish an evidentiary-like standard. The discussion in *Beasley*, while grounded in administrative law, further supports a finding that the suggestion test is behaving in an evidentiary-like manner.

B. Amount of Detail Required Is Related to the Technological Complexity of the Invention

The evidentiary-like aspect of the suggestion test just discussed—that evidence of an undocumented suggestion must be based on testimony including detailed analysis—explains most of the apparent inconsistency between the broad and narrow suggestion test cases. This rule, however, does not explain the results in all of the cases. There are still a few cases discussed in Part III of this Article—*Ruiz*, *Battiston*, and *Nylen*—wherein the court finds an undocumented suggestion even though the existence of detailed testimony analyzing this suggestion is lacking. In such situations, under the rule of evidence just articulated, a suggestion test cannot be established. No admissible evidence under the suggestion test is presented, and therefore, no evidence can substantiate a factual finding of a suggestion to combine. In other words, a similar situation as in *Teleflex*, *Cardiac Pacemaker*, and *Beasley* is presented. But such a result is not reached by the Federal Circuit—the court still allows a suggestion to be found on undocumented grounds.

The one characteristic all of these cases have in common is that the patented technology is fairly simplistic. For example, in *Ruiz*, the patent at issue claimed a screw anchor system for underpinning a building's foundation. The invention was comprised of a screw anchor and a connecting metal bracket.²³⁸ A prior art reference disclosed the claimed screw anchor component while another piece of art disclosed the claimed metal bracket.²³⁹ The suggestion question centered on combining these two pieces of prior art together to make the patent invention. The accused infringer

237. *Id.* at 1345 (distinguishing earlier CCPA precedent set forth in *In re Bozek*, 416 F.2d 1385 (C.C.P.A. 1969)).

238. *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1272–73 (Fed. Cir. 2004).

239. *Id.* at 1273–74.

presented testimony that “the need for a connecting element” for a screw anchor “was widely known.”²⁴⁰

Notably, the *Ruiz* court did not focus on whether this testimony was detailed or analyze how general knowledge in the art or the nature of the problem would provide a suggestion. Thus, under the evidentiary rule discerned from cases such as *Princeton* and *Syntex*, this conclusory testimony should not be able to establish a suggestion to combine. But, the court concluded that “a motivation to combine prior art references” can be found “in the nature of the problem to be solved.”²⁴¹

More importantly, the court noted that “[t]his form of motivation to combine evidence is particularly relevant with simpler mechanical technologies.”²⁴² In *Ruiz*, such a simpler mechanical technology is present—an anchor screw and metal bracket used to secure foundations. In addition, the suggestion question presents an even easier technological question—would a person of ordinary skill look to using metal brackets to physically secure anchor screws already known in the art? With an easier technology to comprehend, the evidentiary standard governing undocumented suggestions is lowered.

Such an analysis also explains the court’s conclusion in *Battiston* and *Nylen*. Both of these cases involve fairly straightforward, easily understood technologies. In *Battiston*, the technology at issue was a splash resistant pan for use with a commode.²⁴³ Two pieces of prior art taught all of the elements of the claimed splash resistant pan except the required rectangular opening. Instead, they disclosed an elongated opening.²⁴⁴ Another reference disclosed the claimed generally rectangular shape of the pan opening.²⁴⁵ The court affirmed the USPTO’s finding of obviousness, specifically finding substantial evidence to support the USPTO’s conclusion that a suggestion to combine “flow[ed] from the ordinary knowledge of one skilled in the art.”²⁴⁶

240. *Id.* at 1276.

241. *Id.*

242. *Id.*

243. *In re Battiston*, 139 F. App’x 281, 282–83 (Fed. Cir. 2005).

244. *Id.* at 283 (describing the contents of the Rose and APA references).

245. *Id.* (describing the Haskins reference as having an upper rim and four planar sides).

246. *Id.* at 283–84 (citing *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

The court did not rely on any specific testimony or detailed explanation by the examiner or the Board to support the undocumented suggestion. However, the Federal Circuit still found evidence to support a suggestion coming solely from the general knowledge of the art. This appears to fly in the face of the reasoning set forth in *Beasley* and *Lee*. In those cases, the court specifically required evidence of a suggestion to combine to reach a minimum threshold.²⁴⁷ The USPTO needed to present “more than conclusory statements of generalized advantages and convenient assumptions about skilled artisans”; it needed to “point to some concrete evidence in the record in support” of a suggestion to combine.²⁴⁸ Here, no such requirement is discussed or used.²⁴⁹

A similar situation is presented in *Nylen*.²⁵⁰ *Nylen* involved the application for a patent covering an applicator bottle that combines a herbicide with a dye.²⁵¹ This combination is used to help a user both direct the application of the herbicide and provide visual confirmation of the weeds treatment.²⁵² The claimed herbicide was well known in the prior art, as was the combination of dyes with other agricultural chemicals.²⁵³ As the court noted, none of the prior art itself “indicat[ed] that they should be combined.”²⁵⁴ No other concrete evidence of a suggestion is identified in the opinion. However, the court still affirmed the USPTO’s finding of a suggestion based on the nature of the problem being solved. Again,

247. See *In re Beasley*, 117 F. App’x 739, 744 (Fed. Cir. 2004).

248. *Id.* (quoting *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001)).

249. There is a possibility that the Board and examiner provided such detail and the Federal Circuit simply decided not to discuss it in the opinion. Such a situation is even more likely considering *Battiston* is an unpublished decision.

But the focus on the need for such evidence in another unpublished decision, *Beasley*, suggests otherwise. In *Beasley*, the court went to great lengths to explain both the basis for the USPTO’s finding of suggestion and how the basis lacked any evidence meeting the standards set forth in *Lee*. See *Beasley*, 117 F. App’x at 744. If such analysis encapsulated the full evidentiary requirement of the suggestion test, the court in *Battiston* would have either noted the existence of such detailed undocumented suggestion evidence or found no support for an undocumented suggestion.

250. *In re Nylen*, 97 F. App’x 293, 294 (Fed. Cir. 2004).

251. *Id.*

252. *Id.*

253. *Id.*

254. *Id.*

as in *Battiston*, the court appears to ignore the rule of evidence utilized in *Lee and Beasley*.²⁵⁵

The lack of a heightened evidentiary requirement in both *Battiston* and *Nylen* is explained with the same reasoning used to explain the court's analysis in *Ruiz*. The technological questions at issue are so simplistic that a rigorous evidentiary-like standard is not needed. In these cases, the court has modified the rule of evidence aspect of the suggestion test. As the complexity of the technology at issue decreases, so does the required detail of any evidence of an undocumented suggestion.

The court in *Beasley* even mentions technological complexity when it applies the requirement that undocumented suggestion evidence include detailed analysis.²⁵⁶ The court needed to determine whether those skilled in the art appreciated the speed advantage of conventional computer memory over bit map memories and "the feasibility of substituting one for the other."²⁵⁷ Such a factual inquiry stands in sharp contrast to the geometric shape of the splash pan design at issue in *Battiston* or the combination of dye and herbicide, instead of another agricultural chemical, in *Nylen*. The suggestion test's rule of evidence required more detail in *Beasley* than in *Battiston* or *Nylen* because the technology in *Beasley* was much more sophisticated.

This modification to the rule of evidence part of the suggestion test is further substantiated by the other suggestion test cases previously discussed.²⁵⁸ *Princeton* involved a patent on a capillary electrophoresis device, and *Syntex* considered a patent for anti-

255. A critique similar to that discussed *supra* note 250 can be lodged against the court's analysis in *Nylen*.

256. *In re Beasley*, 117 F. App'x 739, 744 (Fed. Cir. 2004).

257. *Id.* (discussing how such information can "hardly be described as a fact that is of 'instant and unquestionable demonstration' for the purpose of taking official notice unsupported by any citation" (quoting *In re Ahlert*, 424 F.2d 1088, 1091 (C.C.P.A. 1970))).

258. This adjustment to the "rule of evidence" aspect of the suggestion test being discussed also falls in line with the requirements governing an examiner's usage of common knowledge to establish a prima facie case of obviousness. See MANUAL OF PATENT EXAMINING PROCEDURE § 2144.03 (8th ed., rev. 2, 2004). Some have argued that liberal use of this "official notice" provision improperly shifts the burden of proving nonobviousness to the patent applicant. See Dawn-Marie Bey, *Shifting the Burden of Proving Patentability Vel Non in View of Dickinson v. Zurko*, 12 J. INTELL. PROP. L. 1, 18-28 (2004).

inflammatory eye drops.²⁵⁹ In both cases, the court considered an undocumented suggestion to combine, and the evidence of the undocumented suggestion presented met the heightened evidentiary-like test. Such evidence was required because the technologies at issue were fairly sophisticated. The same is true when looking at the facts of *Cardiac Pacemaker*, where the technology at issue was the design of a specific implantable cardiac defibrillator.²⁶⁰ Such technology is complex, and thus, fairly detailed testimony was required to establish an undocumented motivation to combine. Detailed testimony was not presented, and, as a result, an undocumented suggestion could not be established.²⁶¹

The evidentiary aspect of the suggestion test, therefore, can be further refined. Detailed testimony is required to establish a suggestion to combine based on general knowledge in the art or nature of the problem. However, the level of detail required is related to the complexity of the technology at issue. As the technology becomes very complex, such as in *Princeton* or *Cardiac Pacemaker*, the court requires the testimony regarding an undocumented suggestion to match that complexity. If the technology is simple, such as in *Ruiz* and *Battiston*, admissible testimony on an undocumented suggestion can be simple as well. This reformulation of the suggestion test's "rule of evidence" can be expressed graphically, as shown in Figure 1 below.

259. See *Princeton Biochemicals, Inc. v. Bekman Coulter, Inc.*, 411 F.3d 1332, 1335 (Fed. Cir. 2005); *Syntex (U.S.A.) LLC v. Apotex, Inc.*, 407 F.3d 1371, 1371 (Fed. Cir. 2005).

260. See *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 381 F.3d 1371, 1373-74 (Fed. Cir. 2004).

261. *Id.* at 1376.

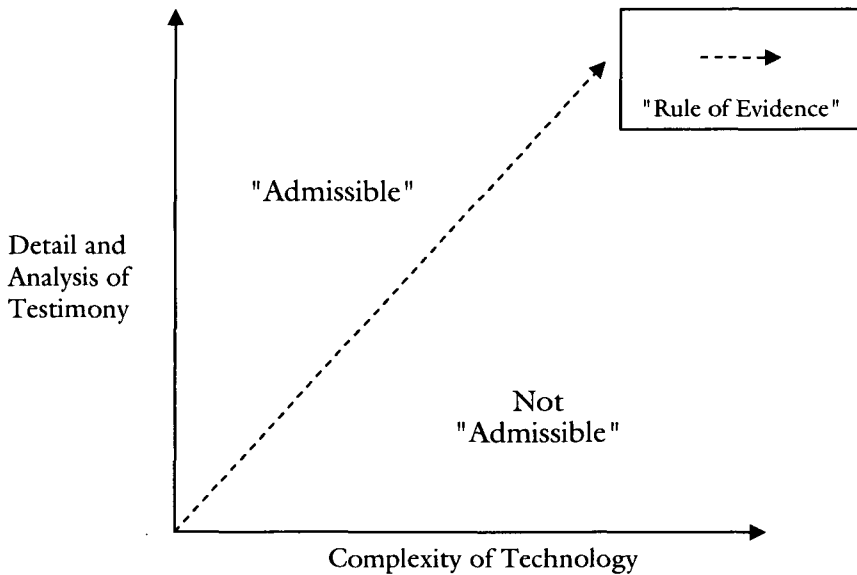


FIGURE 1

In Figure 1, the “rule of evidence” is represented as a function—the dotted line in the center of the graph.²⁶² If the level of detail and analysis in a particular testimony for a given technology meets or exceeds the value on this line, the evidence is “admissible” and can be considered. If the detail and analysis for a given technology falls below this line, the evidence is not “admissible.”²⁶³ Cases such as

262. Whether the relationship is a direct proportion, as depicted, or an asymptote that approaches infinity as the technology gets incredibly complex is not discernible from the cases discussed. The only aspect known for sure is that as the level of complexity increases, so does the required analysis for the evidence to be considered. There would be reason to believe that as the complexity gets greater, the demand for detail and analysis may increase at a faster rate—creating an asymptotic relationship. Thus, the linear relationship shown is merely demonstrative and not a perfect representation of the aspect of the suggestion test being discussed.

263. This type of relationship is very similar to the one established by Federal Rule of Evidence 403. Rule 403 denies the admission of evidence where its probative value is “substantially outweighed by the danger of unfair prejudice.” FED. R. EVID. 403. Thus, as the evidence becomes more probative, the system’s tolerance for prejudicial effect increases. *See* ROGER C. PARK ET AL., EVIDENCE LAW 128–29 (2d ed. 2004). If the evidence has little probative value, the concern of any prejudice may keep the evidence out. *Id.* The probative versus prejudicial balancing required has the same direct relationship as the rule of evidence

Princeton and *Syntex*, involving fairly complex technologies, had very detailed testimony to support their claim of an undocumented suggestion. The testimony in these cases fell above the evidentiary-like function shown in Figure 1 and was therefore available for consideration. This situation is comparable to that in *Beasley* where the technology was complex and little detail or analysis was presented by the USPTO. Evidence such as this falls below the function in Figure 1 and cannot establish a suggestion.

The validity of this further refinement of the rule depicted in Figure 1 can be tested against the facts presented and ultimate decision in *Teleflex*. The patent in *Teleflex* described an adjustable pedal assembly for automobiles wherein the electronic throttle control is mounted to the support bracket as opposed to the pedal.²⁶⁴ “This configuration avoids movement of the electronic control during adjustment of the pedal’s position on the assembly.”²⁶⁵ The complexity of the technology at issue does not rise to the level of the capillary electrophoresis device at issue in *Princeton* or the cardiac defibrillator at issue in *Cardiac Pacemaker*. However, an adjustable automobile pedal with electronic controls is not as simple as the splash pan at issue in *Battiston*. The technology sits slightly above the technology at issue in *Ruiz*. The pedal has electronic components so it is not solely a “simple[] mechanical technology.”²⁶⁶ But the electronic components play a minimal role and, thus, the invention’s sophistication is only slightly higher than the foundation anchors in *Ruiz*.

Therefore, in order to establish an undocumented suggestion, the alleged infringer in *Teleflex* needed to provide testimony that had slightly more detail than that presented in *Ruiz*. In *Ruiz*, the court notes only that testimony on the issue was presented.²⁶⁷ No concern for its detail is discussed. Therefore, in *Teleflex*, something slightly more than a minimal amount of detail was needed. The litigants failed to provide any detail. Other than the prior art presented, the only testimony on suggestion indicated that the prior art “could have

being discussed. As the level of detail and analysis of the testimony increases, the testimony becomes admissible for greater and greater complexities of technology.

264. *Teleflex, Inc. v. KSR Int’l Co.*, 119 F. App’x 282, 283–84 (Fed. Cir. 2005), *cert. granted*, 126 S. Ct. 2965 (2006).

265. *Id.* at 284.

266. *See Ruiz v. A.B. Chance, Co.*, 357 F.3d 1270, 1276 (Fed. Cir. 2004).

267. *Id.*

been” combined to make the invention and addressed a combination that was not the claimed invention.²⁶⁸ Any detail on the issue of suggestion was non-existent. Accordingly, because of the evidentiary aspect of the suggestion test, this testimony was not considered, and the grounds for proving a suggestion were limited to the prior art.²⁶⁹ The testimony fell below the evidentiary-like function depicted in Figure 1 and was therefore not considered.

VI. NORMATIVE EVALUATION OF THE SUGGESTION TEST’S “RULE OF EVIDENCE”

The descriptive study performed above provides an understanding of exactly how the Federal Circuit is using the suggestion test. The test has not been limited to documented suggestions. Undocumented suggestions can still be used to prove a patented invention obvious. Things are not as prior-art-focused as recent critics would have one believe.

However, the analysis cannot end with describing exactly how the court uses the suggestion test. An argument can still be made that the suggestion test’s rule of evidence produces harms similar to those produced by the narrow suggestion test. The rule necessarily limits the breadth of evidence that can prove an undocumented suggestion. With a smaller evidentiary basis to establish a suggestion to combine—thereby establishing obviousness—the result of the evidentiary-like aspect of the suggestion test may be a lowering of the nonobviousness requirement. Thus, while the suggestion test has not narrowed, as most critics believe, the test may still be hampering the proper operation of the nonobviousness requirement.

This Part explores the impact the suggestion test’s rule of evidence has on the nonobviousness requirement. It begins with looking at the rule under evidence theory. Specifically, the suggestion test’s rule of evidence is examined to see if it helps maximize the likelihood that a correct determination of suggestion, and thus obviousness or nonobviousness is made by courts and the USPTO. While the rule is not a traditional rule of evidence,²⁷⁰ looking at it under evidence theory helps to further tease out and

268. *Teleflex*, 119 F. App’x at 289 (detailing the declaration offered by the accused infringer, KSR).

269. *Id.* at 287–90.

270. *See supra* note 197.

test its evidentiary-like qualities. Second, the rule's effect on the nonobviousness doctrine is discussed. This whole normative analysis revolves around whether the rule helps prevent both erroneous determinations of obviousness (Type I error) and nonobviousness (Type II error).²⁷¹ From this analysis, the propriety of the rule of evidence is discerned.

A. Rule Reduces Overvaluation of Suggestion Evidence

One of the main purposes of evidence law is to ensure that "the truth may be ascertained" in a given judicial proceeding.²⁷² The "overarching function of evidence law is to maximize the . . . probability that factfinders in our adjudicatory system will accurately determine objective historical truth."²⁷³ Thus, evidence law is meant to maximize truth by "increas[ing] the frequency with which truth is ascertained."²⁷⁴ Staying true to this part of evidence theory, the suggestion test's rule of evidence is analyzed to see if it prevents overvaluation of suggestion evidence.

271. A "Type I error" is a false-positive, which in this context is a false finding of obviousness, while a "Type II error" is a false-negative, which in this context is a false finding of nonobviousness. See, e.g., Ian Ayers & Katherine K. Baker, *A Separate Crime of Reckless Sex*, 72 U. CHI. L. REV. 599, 639-40 (2005) (discussing Type I and Type II errors in the context of criminal law); Alex Stein, Essay, *Of Two Wrongs that Make a Right: Two Paradoxes of the Evidence Law and Their Combined Economic Justification*, 79 TEX. L. REV. 1199, 1207 (2001) (discussing Type I and Type II errors in the context of evidence law).

272. FED. R. EVID. 102.

273. Michael L. Seigel, *A Pragmatic Critique of Modern Evidence Scholarship*, 88 NW. U. L. REV. 995, 996 (1994). Seigel uses the term "optimistic rationalism" to identify this "near-universal[ly] accept[ed]" purpose of evidence law. See *id.* He critiques this optimistic rationalism, considering it too static and failing to consider any "postmodern jurisprudential perspectives." *Id.*

For the purposes of this Article, the suggestion test's rule of evidence will be evaluated under the traditional, truth maximization norm of evidence law. Evaluations under different evidence theories are left for another day and perhaps another author.

274. Ronald J. Allen & Brian Leiter, *Naturalized Epistemology and the Law of Evidence*, 87 VA. L. REV. 1491, 1501 (2001) ("[A] majority of the rules of evidence have as their primary rationale their (alleged) truth-conducive virtues.").

Evidence law has other justifications, such as "reducing accidents and avoiding litigation." *Id.* at 1498-99 (citing FED. R. EVID. 407-411). In fact, most of the Federal Rules of Evidence can be evaluated under a law and economics approach. See, e.g., Richard A. Posner, *An Economic Approach to the Law of Evidence*, 51 STAN. L. REV. 1477 (1999). This Article will focus on evaluating the rule of evidence aspect of the suggestion test under the primary rationale Allen and Leiter identify.

1. Dangers of overvaluation

Overvaluation occurs when a trier of fact concludes that a piece of information places him or her closer to the truth than, in reality, the evidence actually does.²⁷⁵ That is, jurors, or a judge, assign more value to the evidence than it really provides. For example, overvaluation occurs if jurors assign a piece of evidence a value of five, when its correct value is three.²⁷⁶ For there to be a real threat of overvaluation, “it must be the case that what most people believe to be true”—that the evidence is valued at five in the given example—“is in reality false.”²⁷⁷

Overvaluation can reduce the accuracy of a factfinder’s conclusions.²⁷⁸ By concluding that a piece of evidence gets him or her closer to a particular truth than it does in actuality, the factfinder may ultimately be led astray. When the factfinder assumes a false notion, he may draw inferences that lead to more false beliefs. Thus, areas of evidence law attempt to minimize overvaluation by heavily monitoring the admission of types of evidence prone to overvaluation.

The rules governing character evidence illustrate such an area of evidence law. Character evidence can have some probative value as to the correct result of a factual question.²⁷⁹ Character traits have some influence on behavior and, as a result, have some predictive value as to whether an individual did or did not act in line with her past

275. See Kenneth J. Melilli, *The Character Evidence Rule Revisited*, 1998 BYU L. REV. 1547, 1598–1601 (discussing overvaluation in the setting of character evidence); see also Richard D. Friedman, “E” Is for Eclectic: *Multiple Perspectives on Evidence*, 87 VA. L. REV. 2029, 2030 (2001). Notably, Friedman believes that this justification for evidence law has been overvalued itself. *Id.* (“[Overvaluation] has been given far too much credence in evidentiary discourse.”). “Exclusion is not justified on the basis of overvaluation unless the jury so massively overvalues the evidence that considering the evidence leads it further away from, rather than closer to, the truth.” *Id.*

276. See Melilli, *supra* note 275, at 1598 (setting forth an example to explain overvaluation of character evidence).

277. *Id.*

278. See *id.*

279. *Id.* at 1597–99; see also David P. Leonard, *In Defense of the Character Evidence Prohibition: Foundations of the Rule Against Trial by Character*, 73 IND. L.J. 1161, 1181–84 (1998). Notably, Melilli and others conclude that overvaluation is not as significant a problem for character evidence as others may think. See Melilli, *supra* note 275, at 1599.

actions.²⁸⁰ However, a trier of fact may have the propensity to ignore the real possibility that someone acted out of character. In such an instance, character evidence is overvalued. The factfinder may weigh the character evidence so heavily as to ignore other objective evidence to the contrary.²⁸¹ In order to avoid this overvaluation, evidence law limits the admissibility of character evidence.²⁸²

Scientific evidence may also be overvalued. Evidence on issues of science, particularly expert evidence, usually “presents information or a perspective that is unfamiliar to most jurors and judges.”²⁸³ Because of this lack of familiarity, such evidence is extremely important to the factfinder and also has the “power to persuade.”²⁸⁴ A factfinder is likely to give scientific evidence the full value for which it is offered because he or she is uncomfortable discounting it.²⁸⁵ Thus, scientific evidence that has little absolute value has the propensity to be overvalued by the factfinder, leading to unfair results.²⁸⁶ Overvaluation occurs not because the factfinder increases the evidence’s value, as with character evidence, but because the factfinder is unlikely to properly decrease the evidence’s value. In an attempt to prevent overvaluation, evidence law asks the court to act as the gatekeeper for this type of evidence.²⁸⁷ Courts are asked to ensure that only reliable expert evidence is admitted. Federal Rule of Evidence 702 requires that expert testimony be “based upon sufficient facts or data” and that it be “the product of reliable principles and methods.”²⁸⁸ This focus on reliability attempts to ensure that the conclusions offered by the expert are more likely to

280. See Leonard, *supra* note 279, at 1182 (“[I]t has long been believed that evidence of character satisfies the lenient test of logical relevance when offered as proof of conduct.”). Leonard notes that this conclusion has been challenged. *Id.* at 1182 n.89.

281. See *id.* at 1184. This overvaluing is the product of “inferential error prejudice.” *Id.* There is empirical work that suggests the opposite, that factfinders do not tend to overvalue. See Melilli, *supra* note 275, at 1599.

282. See, e.g., FED. R. EVID. 404 (limiting, generally, the admission of character evidence to prove conduct).

283. Friedman, *supra* note 275, at 2048.

284. *Id.*

285. See D.H. Kaye, *The Dynamics of Daubert: Methodology, Conclusions, and Fit in Statistical and Econometric Studies*, 87 VA. L. REV. 1933, 1939 (2001) (“Courts fear that [scientific evidence] comes cloaked in an aura of infallibility and that this leads jurors to give it more credence than it deserves.”).

286. Friedman, *supra* note 275, at 2048.

287. See FED. R. EVID. 702; *Daubert v. Merrell Dow Pharm.*, 509 U.S. 579, 597 (1993).

288. FED. R. EVID. 702.

be true than not.²⁸⁹ Thus, the rule of evidence helps to ensure that when the factfinder accepts the expert's conclusions, what he or she is accepting is more likely to be the full truth on a given issue.

2. *Rule mitigates the hindsight bias*

Evidence of a suggestion presents similar problems of overvaluation in the form of hindsight bias. As already explained, the mere existence of the invention makes it easier for the factfinder to conceptualize the invention's creation and thus introduces hindsight bias into the nonobviousness inquiry.²⁹⁰ This bias prompts overvaluation of certain evidence by the factfinder. The factfinder may assign more value to facts such as the current existence of the patentee's invention and the existence of the elements of the invention in different pieces of prior art than this evidence necessarily provides.²⁹¹ This hindsight bias, by prompting this overvaluation, brings the factfinder closer to a finding of obviousness than the evidence truly establishes.

The substantive part of the suggestion test is meant to de-bias the factfinder.²⁹² By requiring the factfinder to conclude that there was a suggestion to combine, the factfinder is required to substantiate his or her hindsight bias in evidence. A reason to combine the prior art must come from a specific informational source in existence at the time of the invention: the prior art, general knowledge in the art, or the nature of the problem.²⁹³ The present existence of the invention or elements of the invention in the past is not enough to warrant a finding of obviousness.²⁹⁴ Another fact must

289. Friedman, *supra* note 275, at 2049.

290. See *In re Kotzab*, 217 F.3d 1365, 1369 (Fed. Cir. 2000) (“[T]he very ease with which the invention can be understood may prompt one ‘to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher.’” (quoting *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983))); Mandel, *supra* note 62, at 6–7; *supra* Part II.B.

291. See *Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1371–72 (Fed. Cir. 2000). The mere fact that each element of the patented invention can be found in the prior art does not render the claims obvious. See *Princeton Biochemicals, Inc. v. Bekman Coulter, Inc.*, 411 F.3d 1332, 1337 (Fed. Cir. 2005).

292. See *Nat'l Steel Car, Ltd. v. Canadian Pac. Ry.*, 357 F.3d 1319, 1337 (Fed. Cir. 2004).

293. See *supra* Part II.B.

294. See *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999), *abrogated by In re Gartside*, 203 F.3d 1305 (Fed. Cir. 2000).

be proven: a suggestion or motivation to combine the prior art that existed at the time of the invention's creation.²⁹⁵ The bias alone cannot result in a finding of obviousness.

Overvaluation through hindsight bias is similar to the overvaluation associated with character evidence. Character evidence can be seen as creating a "forward bias." Character evidence provides a factfinder information regarding how that individual has acted in the past. Factfinders are likely to overvalue this evidence from the past because there is a tendency to believe that the past is a perfect indicator of future action.²⁹⁶ Evidence of what has occurred *ex ante* overinfluences a factfinder's evaluation of a specific, *ex post*, action. Character evidence, therefore, creates a forward-looking bias. Hindsight bias creates overvaluation in a similar way, only it works in the opposite direction. The invention's existence causes a decision-maker to believe what is presently true is a perfect indicator for what would have happened in the past.

Of specific importance for the suggestion test's rule of evidence is the fact that hindsight bias also affects the factfinder's valuation of the suggestion evidence itself. The hindsight bias lens is not magically removed when the factfinder is evaluating evidence of a suggestion to combine.²⁹⁷ The continued existence of hindsight bias causes the factfinder to have a predilection toward seeing a suggestion in places where it does not exist or where support for its existence is extremely weak. Hindsight bias can lead to the overvaluation of the very tool meant to mitigate the bias. Thus, another legal tool is needed to insulate the suggestion test from being infected with bias as well.

The evidentiary-like aspect of the suggestion test adds the needed extra layer of protection against hindsight bias and, thus, overvaluation. The suggestion test's rule of evidence requires either that evidence of suggestion be grounded in the prior art or that testimony given regarding an undocumented suggestion is of a requisite level of detail and analysis.²⁹⁸ This requisite level is defined by the level of complexity of the technology at issue.²⁹⁹ By

295. See *Nat'l Steel Car*, 357 F.3d at 1337.

296. See Leonard, *supra* note 279, at 1181-83.

297. See, e.g., Mandel, *supra* note 62, at 16-17 (performing a study that concluded that even instructions directed at de-biasing a decision-maker have little effect).

298. See *supra* Part V.A.

299. See *supra* Part V.B.

introducing additional requirements for the admissibility of undocumented suggestion evidence, the rule helps mitigate the effects of hindsight bias on the main substantive suggestion inquiry.

The rule prevents hindsight bias because it is formulated to admit suggestion evidence whose traits make it less susceptible to being overvalued. First, the rule allows all prior art to be considered as possibly establishing a suggestion.³⁰⁰ Prior art is documentary evidence that was available to one skilled in the art at the time of the invention.³⁰¹ This information, by definition, is formulated and fixed *ex ante*.³⁰² It therefore cannot be influenced by the patented invention's existence. The drafter of the art did not know of the patented invention and could not be affected by the hindsight bias. In addition, the information contained therein was not created in response to the particular litigation or proceeding at issue. Prior art is not written with knowledge of the nonobviousness analysis taking place. This makes the information contained within the prior art a further step removed from any possible effects of hindsight bias. Finally, the possible suggestion in the prior art speaks for itself. Prior art is not inherently accompanied by a narration of a fact witness or expert.³⁰³ Instead, the words or drawings in the reference are relied upon by themselves to establish a suggestion to combine the prior art references. This further insulates the art's teachings from the hindsight bias.

Adding to this potential for overvaluation is the fact that the undocumented suggestions are perfect homes for a decision-maker's hindsight bias. The prior art says what it says. Hindsight bias can color one's view of the meaning of a specific text or diagram contained within the prior art. But the bias has a limited amount of

300. See, e.g., *Teleflex, Inc. v. KSR Int'l Co.*, 119 F. App'x 282, 288–89 (Fed. Cir. 2005) (evaluating the prior art to see if it established a suggestion), *cert. granted*, 126 S. Ct. 2965 (2006).

301. See 35 U.S.C. § 102 (2000) (detailing what qualifies as prior art in patent law).

302. See *id.*

303. Testimony can accompany the prior art. This testimony would be influenced by hindsight bias and would not be directly addressed by the rule of evidence articulated. See *supra* Part V.A (indicating that the suggestion test's rule of evidence is focused solely on undocumented suggestion evidence). However, information in the prior art is not affected by hindsight and can check the testimony. The prior art limits the amount of overvaluation that can occur.

information with which to play.³⁰⁴ Such natural limitations are not present when it comes to undocumented general knowledge in the art or the nature of the problem being solved. How this general knowledge and the problem the invention addresses would have affected a person of ordinary skill in the art at the time of the invention is much more amorphous. This lack of tangibility gives much more wiggle room to the factfinder. These factors make an undocumented basis for suggestion the path of least resistance to ground the hindsight bias in evidence of suggestion.

The suggestion test's rule of evidence minimizes the hindsight bias effects on undocumented evidence by requiring such evidence include a requisite level of detail and analysis. Requiring such testimony to be thorough and complete mitigates overvaluation by both the testifier and the factfinder. First, a requirement of rigor forces the testifier to articulate why she concludes general knowledge or the nature of the problem provides a suggestion to combine.³⁰⁵ Conclusory statements or mere argumentation are not enough.³⁰⁶ The rule forces the testimony to go further, beyond statements that could be supported by bias alone, and provide detailed reasoning as to the foundation for and conclusion of suggestion.³⁰⁷ Thus, the USPTO's mere conclusion in *Beasley* that one of ordinary skill would have known the advantages of conventional memory over bit map memory, and thus substituted one for the other, could easily be prompted by hindsight bias alone.³⁰⁸ Bias does not, however, create reasoning and analysis for this conclusion. For example, the detail and analysis in Dr. Jorgenson's testimony in *Princeton* explaining exactly how one of ordinary skill would possess knowledge to coil and secure a capillary tube is more likely the product of Dr.

304. The universe of prior art is expressly limited by statute. See 35 U.S.C. § 102. Section 102 establishes a set of detailed rules defining what can, and cannot, be considered prior art. See *id.*

305. See, e.g., *In re Beasley*, 117 F. App'x 739, 742-44 (Fed. Cir. 2004) (requiring the USPTO to specifically articulate how knowledge in the art creates a suggestion to combine); see also *supra* Part V.B.

306. See, e.g., *In re Lee*, 277 F.3d 1338, 1344 (Fed. Cir. 2002) (finding the Administrative Procedure Act requires more than conclusory statements or common sense findings).

307. Hindsight can influence this reasoning; but, presumably, the more detail that is required, the less likely mere bias can support the creation of particular details and analysis. In a sense, by requiring detail and analysis, the testifier must confront her own bias and either ground it in detailed analysis or have her testimony ignored.

308. *Beasley*, 117 F. App'x at 741-44.

Jorgenson's grounded, rational belief in the suggestion than it is of bias.³⁰⁹ Requiring thorough analysis de-biases testimony on suggestion.

Overvaluation by the factfinder is also mitigated. Undocumented grounds of suggestion lend themselves to hindsight bias. The conclusion that an invention was easy to create is simpler to realize through the vehicles of general knowledge in the art or the nature of the problem being solved as opposed to the prior art itself.³¹⁰ And when such undocumented suggestions can be established through conclusory testimony or even argumentation, it becomes even easier for a factfinder to find support for their hindsight bias. Simple statements such as "anyone knowledgeable of the prior art would have known how to create the invention" are easy to accept when one is already preconditioned to the ultimate conclusion. But as the testimony becomes more complex, the factfinder is faced with actual detail and analysis that must be evaluated. The testimony presents more than the conclusion the hindsight bias favors. This increase in complexity forces the factfinder, as it does the testifier, to truly consider the question of suggestion instead of simply relying on hindsight bias. In turn, the testimony the rule of evidence admits is testimony that a factfinder is less likely to overvalue.

The rule of evidence does allow the required detail of the evidence to decrease as the level of complexity of the patent technology decreases.³¹¹ Accordingly, the protection against hindsight bias and overvaluation decreases as the technology at issue becomes simpler. It might seem intuitive that such a decrease would be detrimental because the effects of hindsight bias are greater in simple technology cases.³¹² Because the technology is so simple, it becomes even easier for the factfinder to conceptualize the invention's creation.³¹³ However, while there is some logic behind

309. See *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1338-39 (Fed. Cir. 2005).

310. It is easier to conclude that something is obvious because those in the field would have generally known how to create such an invention or that the problem itself prompted the invention. These undocumented suggestion categories are unstructured by design, and the lack of firm boundaries lends them to easy use in rhetorical statements and conclusions of an invention's obviousness.

311. See *supra* Part V.B.

312. See *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351 (Fed. Cir. 2001) (finding simple art creates the temptation of hindsight bias).

313. See *id.*

this line of thinking, the opposite is actually true: “[H]indsight bias tends to be stronger where an outcome is unexpected.”³¹⁴ In addition, the effects of bias generally increase the more unfamiliar the decision-maker is with the subject matter at issue. So, the more sophisticated the technological advance, the higher likelihood evaluation of this advance will be influenced by hindsight bias.³¹⁵ As technological complexity increases, the decision-maker is coming upon increasingly unfamiliar territory and, as a result, is less likely to try to reason out a specific answer. Accordingly, the decision-maker is more likely to cave in to the influence of hindsight bias.³¹⁶ The rule of evidence aspect of the suggestion test is thus tailored to increase its defense against hindsight bias and overvaluation by requiring more rigor in admissible testimony.³¹⁷

3. Rule increases reliability

The rule of evidence part of the suggestion test also increases the reliability of the evidence admitted. Some of the analysis contrasting documented versus undocumented suggestion evidence with regards to hindsight bias applies equally to issues of reliability. Prior art evidence of a suggestion to combine is inherently reliable because of its defining characteristics. As previously mentioned, prior art is drafted well before the proceedings in which it is used.³¹⁸ It is most likely created by one of skill in the art and its intended audience is others in the same technological area, not a judge or jury.³¹⁹ Therefore, suggestions from prior art are reliable because the information provided is independent and insulated from the

314. See Mandel, *supra* note 62, at 10–11 (citing David A. Schkade & Lynda M. Kilbourne, *Expectation-Outcome Consistency and Hindsight Bias*, 49 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 105, 106–07 (1991)).

315. See *id.* at 11.

316. See *id.*

317. See *supra* Part V.B., Figure 1.

318. See 35 U.S.C. § 102(a) (2000) (requiring prior art to be in existence before the date of invention). *But see id.* § 102(b) (identifying a class of prior art that can exist after the initial invention if the art also existed more than one year prior to the filing date of a patent on that invention).

319. Prior art can be created by those of a higher or lower skill than the ordinary skill in the art. In addition, the art may be intended for a different audience. See, e.g., *Phillips v. AWH Corp.*, 415 F.3d 1303, 1322–23 (Fed. Cir. 2005) (en banc) (noting that a patentee may act as her own lexicographer and give a term a different definition than its ordinary meaning). However, these types of variations are unlikely.

motivations of the judicial environment.³²⁰ In addition, the extent of information prior art can provide is limited to the text and diagrams contained within the prior art. This documentation is self-authenticating. Just as the concreteness of prior art helps to reduce the hindsight bias, it also increases the reliability of any suggestion contained therein. Similar built-in reliability measures are not present in testimony speaking to an undocumented suggestion. For example, the testimony is made specifically for the nonobviousness inquiry. Its conclusion, therefore, may be driven by the desire for a particular outcome.³²¹

The rule of evidence aspect to the suggestion test attempts to graft some reliability safeguards into evidence of an undocumented suggestion. The rule requires testimony to contain detail and analysis. The testimony must detail the general knowledge in the art or the nature of the problem being solved and then explain why such information creates a suggestion to combine or modify the prior art to practice the invention.³²² Mere argumentation or conclusory statements of undocumented suggestion cannot form the basis of a finding of suggestion.³²³ The USPTO cannot simply assert that, for example, those of skill in the art know that conventional memory is better than bit map memory and are likely to substitute one for the other.³²⁴ This statement, standing by itself, is tough to evaluate for its truthfulness. More information as to why this fact is known to those of skill in the art is needed. In addition, some reasoning as to why that person would swap these types of memory would lend more credence to the statements ultimate conclusion of suggestion. The requirement for a detailed analysis is a proxy to ensure the testimony's contents are reliable.³²⁵ When the testifier explains in

320. See *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202–03 (Fed. Cir. 2002) (touting the use of dictionaries in interpreting patent claims because they are “unbiased” and “not influenced by expert testimony or events subsequent to . . . the grant of the patent, not colored by motives of the parties, and not inspired by litigation”). The understanding of prior art can be influenced by that information which is inherent to one of ordinary skill in the art. See *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002) (explaining the concept of inherency). However, the information is still grounded in the fixed, documentary evidence that makes up prior art.

321. Cf. *Tex. Digital Sys.*, 308 F.3d at 1202–03.

322. See *supra* Part V.A.

323. See, e.g., *In re Beasley*, 117 F. App'x 739, 742–44 (Fed. Cir. 2004).

324. See *id.*

325. See, e.g., *Syntex (U.S.A.) LLC v. Apotex*, 407 F.3d 1371, 1380–81 (Fed. Cir. 2005) (detailing the expert's testimony).

detail why a conclusion of suggestion was reached, that conclusion has a higher likelihood of being true. The required additional reasoning will either further flesh out a testifier's conclusion regarding an undocumented suggestion or exclude, or deter, a testifier from reaching an incorrect conclusion on suggestion.

The suggestion test's rule of evidence operates in a similar fashion to *Daubert* requirements for the admission of expert testimony. Ensuring reliability is the goal of the admissibility requirements governing expert testimony.³²⁶ To meet this goal, courts are required to resolve, as a threshold matter, whether the methodology an expert uses to reach a particular conclusion is sound enough to deem the conclusion reliable.³²⁷ Testimony from experts whose methodologies are considered flawed are unreliable and, thus, inadmissible. This lack of reliability suggests that the conclusions are more likely false than true.³²⁸ Because there is presumed systematic overvaluation of expert testimony by factfinders, the judicial system cannot risk admitting unreliable expert evidence if the system's goal is to maximize the likelihood of finding truth.³²⁹

Testimony regarding a suggestion to combine from general knowledge or the nature of the problem does not necessarily rise to the level of expert testimony. Such testimony can come from fact witnesses. But the testimony's contents and the question the testimony addresses raise similar concerns of overvaluation as expert testimony. The testimony addresses a factual issue with which a factfinder is most likely unfamiliar—whether, in a given technological field, a person having a certain level of training in that technology would have been motivated to combine or modify what had already been done to create the patent invention.³³⁰ The question of a

326. See Friedman, *supra* note 275, at 2049–50; Jennifer L. Mnookin, *Scripting Expertise: The History of Handwriting Identification Evidence and the Judicial Construction of Reliability*, 87 VA. L. REV. 1723, 1735 (2001).

327. The current focus is on ensuring the methodology the expert uses to reach her conclusions is sound. See David S. Caudill & Lewis H. LaRue, *Why Judges Applying the Daubert Trilogy Need To Know About the Social, Institutional, and Rhetorical—and Not Just the Methodological—Aspects of Science*, 45 B.C. L. REV. 1, 13–18 (discussing the *Daubert* trilogy). Caudill and LaRue conclude that more than methodology should be considered when testing the reliability, and thus the scientific correctness, of an expert's testimony. *Id.* at 51–53.

328. See Friedman, *supra* note 275, at 2050.

329. See Kaye, *supra* note 285, at 1939–40 (explaining that jurors might give too much weight to scientific evidence and, thus, hinder justice).

330. See *supra* Part II.B.

suggestion is also very technical because of the nature of the invention at issue.³³¹ The factfinder, therefore, just as with an expert, will need to rely heavily on the testimony regarding suggestion. Because of unfamiliarity with the issues presented, the factfinder may have a propensity for crediting the testimony in its entirety. Under these circumstances, as with expert evidence, the reliability of the evidence presented becomes extremely important. The suggestion test's rule of evidence reacts to this situation and, in turn, attempts to ensure reliability by requiring detailed and thorough analysis for testimony to be available for consideration.

The rule further tailors its assurances of reliability by tuning the required detail and analysis of testimony on suggestion to the level of technology at issue. As the complexity of technology increases, the subject matter becomes increasingly unfamiliar to the factfinder. The factfinder, accordingly, will increase their reliance on the testimony on an undocumented suggestion. For example, a jury is more likely to fully rely on testimony regarding a capillary electrophoresis device than testimony on a splash pan.³³² With this increase in reliance, the fear of overvaluation and need for reliability grows.³³³ The rule adjusts accordingly, requiring more detail for the testimony to be admissible.

B. Rule's Effect on the Correctness of Nonobviousness Decisions

The suggestion test's rule of evidence reduces overvaluation of suggestion evidence. But, for a complete normative evaluation of the rule, the rule's impact on substantive nonobviousness law needs to be examined. By reducing overvaluation of suggestion evidence, the rule helps the nonobviousness requirement to operate properly. However, the rule, by definition, excludes some evidence of undocumented suggestion from consideration, potentially hampering one's ability to challenge a patent claim's nonobviousness. The question becomes whether these substantive effects of the suggestion test's rule of evidence, on balance, maintain or frustrate the balance between incentives and competition that the nonobviousness doctrine is trying to preserve. To put it simply, does

331. *See id.*

332. *Compare* *Princeton Biochemicals, Inc. v. Bekman Coulter, Inc.*, 411 F.3d 1332, 1334–35 (Fed. Cir. 2005), *with In re Battiston*, 139 F. App'x 281, 282–83 (Fed. Cir. 2005).

333. *See, e.g.,* *Kaye*, *supra* note 285, at 1939–40.

the rule increase the likelihood that courts and the USPTO will make correct determinations on nonobviousness? To better answer this question, the following section examines the rule's effect on both Type I and Type II errors.

1. Rule reduces Type I errors

Type I errors occur when a court or the USPTO finds a patent claim obvious when, in actuality, it is not.³³⁴ That is, the claimed invention is found unpatentable even though it describes an invention that is a significant technological advance over the prior art and would not have been created absent the incentive of patent protection.³³⁵ The suggestion test, when operating properly, does not find a suggestion when these two conditions are present.³³⁶ The problem, detailed above, is that evidence of an undocumented suggestion has certain inherent attributes that lead to a finding of suggestion when a suggestion is actually absent.³³⁷ These factors create Type I errors because they cause suggestions to be found where they are not, and these false suggestions lead to false conclusions of obviousness.

The suggestion test's rule of evidence reduces overvaluation of suggestion evidence. As a result, the rule reduces the number of false findings of suggestion, which in turn results in less false findings of obviousness. Without a factual finding of suggestion, a court or the USPTO cannot hold a patent claim invalid because of obviousness. The rule, therefore, prevents possible Type I errors by increasing the likelihood that suggestion findings are accurate. This evidentiary aspect of the suggestion test helps to ensure the correctness of determinations of obviousness.

334. See *supra* note 271.

335. See *supra* Part II.

336. See *supra* Part II.B.

337. A factfinder or testifier, because of the hindsight bias, may find a suggestion when it is, in truth, not present. A factfinder may also completely credit testimony supporting an undocumented suggestion when, in reality, the testimony is unreliable and it is likely that the suggestion does not exist.

2. Rule fails to address and may create Type II errors

Type II errors occur when a court or the USPTO finds a patent claim nonobvious when, in actuality, it is not.³³⁸ The suggestion test's rule of evidence does little to ensure the correctness of determinations of nonobviousness. All of the evidentiary aspects of the suggestion test discussed guard against the overvaluation of evidence of obviousness. The rule ensures that evidence regarding an undocumented suggestion is less susceptible to hindsight bias and more reliable. But hindsight bias and the lack of reliability have only a tendency to produce incorrect findings of obviousness. These overvaluing effects do not operate in the other direction. They do not have a propensity to improperly push the factfinder to a finding of nonobviousness. The overvaluation the suggestion test's rule of evidence addresses is a one-way ratchet—making a finding of obviousness more likely in those cases where the invention is truly nonobvious. The elimination of overvaluation of suggestion evidence does not address possible Type II errors.

In fact, the suggestion test's rule of evidence may even introduce Type II errors of its own. In practice, the rule may have the same, or similar, effect as the narrow suggestion test because the rule necessarily limits the scope of available evidence to prove an undocumented suggestion. The rule also introduces costs, by requiring more detail and analysis, that can further limit the ability for litigants, the USPTO, and other patent observers to avail themselves of undocumented suggestions to evaluate and invalidate patent claims.

The rule of evidence increases the cost of challenging a patent in litigation on obviousness grounds. The rule requires testimony that includes detailed analysis. To get such testimony will require, in most cases, the hiring of an expert. This expert will need to be paid for a lengthy report and testimony in order to meet the requirements of the suggestion test's evidentiary rule. Litigants will either need to devote significant resources to proving obviousness or will be discouraged from bringing a challenge altogether because of the costs imposed by the rule. These costs become even more significant when patent observers—potential licensees or those in a pre-litigation posture—want to evaluate a patent's nonobviousness. Accessing,

338. See *supra* note 271.

creating, and evaluating detailed analysis of an undocumented suggestion in such situations produce litigation type costs in settings where such costs are usually not expected, and, as a result, are even more burdensome.

Barrier creating costs would also be experienced at the USPTO. A patent examiner does not have the ability to produce detailed testimony to support a finding of undocumented suggestion.³³⁹ The USPTO does not have the resources or procedural tools through which it can solicit testimony to establish what was generally known to a particular art field. The rule would thus result in a de facto narrow suggestion test at the USPTO.

This lack of availability of undocumented suggestions would lead to incorrect findings of nonobviousness. In technological areas where suggestions are unlikely to be fixed and available on paper, such as the software and business method areas, access to undocumented suggestions is necessary to properly determine whether inventions in the technologies are truly nonobvious.³⁴⁰ Undocumented suggestions also allow the nonobviousness requirement to operate properly where well-known principles and concepts are not memorialized.³⁴¹ Without the undocumented suggestion categories, inventions that were obvious at the time of their creation will still be held nonobvious due to the lack of documented evidence of suggestion.³⁴² A Type II error is therefore introduced—a finding of nonobviousness when the invention is actually obvious. The rule of evidence, by de facto limiting access to undocumented suggestions, may produce Type II errors.

The barriers created by the suggestion test's rule of evidence are a little overstated, particularly in the litigation setting. First, the rule does not go as far as the narrow suggestion test because the rule does not completely change the substantive part of the suggestion test. A suggestion to combine can still be based on an undocumented suggestion—general knowledge in the art or the nature of the problem being solved.³⁴³ Prior art is not the only source for suggestion. Evidence to establish an undocumented

339. See Rai, *supra* note 94, at 912–17.

340. See NAT'L RESEARCH COUNCIL, *supra* note 86, at 88–90.

341. See *id.*; FED. TRADE COMM'N, *supra* note 9, ch. 4, at 40.

342. *Id.*; Eisenberg, *supra* note 14, at 888.

343. See, e.g., *Syntex (U.S.A.) LLC v. Apotex*, 407 F.3d 1371, 1380–81 (Fed. Cir. 2005); see also *supra* Part III.

suggestion does need to meet the detail and analysis required under the rule. But, unlike the narrow suggestion test, establishing an undocumented suggestion is still possible. The general parameters of the broad suggestion test are not disturbed.

Additionally, in the litigation setting, the added requirement of detail and analysis from a testifier on an undocumented suggestion adds minimal costs. Patent litigations cost, on average, about \$800,000 for each party through the end of discovery and about \$1,500,000 for each party through trial and appeal.³⁴⁴ Also, the usage of experts in patent litigation by both parties on issues of infringement and validity is ubiquitous.³⁴⁵ In light of the overall high cost of litigation and required hiring and use of experts, the addition of some detail and analysis from one of those experts is minimal at best. Those situations where a litigant is deterred from pursuing an obviousness theory based on an undocumented suggestion because of the rule would most likely not be Type II error situations. Instead, that litigant is already deterred by the costs of patent litigation in general or, in reality, no undocumented suggestion exists. Otherwise, a litigant should easily be able to use an expert who can add detail and analysis to their testimony to meet the rule's requirements.

Outside the litigation setting, the full and complete discussion of any issue of infringement or validity is also expensive. A reliable legal opinion on a patent's validity or infringement may cost tens of thousands of dollars and can, in certain circumstances, cost well over \$100,000.³⁴⁶ Again, the additional costs associated with the rule are likely minimal in comparison. In addition, the rule has the benefit of forcing a patent observer to come to terms with the substance of the possible undocumented suggestion. Requiring some detail and analysis allows the observer to better test the strength of a patent's nonobviousness.

344. See Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 U. PA. L. REV. 1, 16 (2005) (citing AIPLA Report of Economic Survey (of U.S. IP Practitioners) (1999)).

345. See Edward G. Poplawski, *Selection and Use of Experts in Patent Cases*, 27 AIPLA Q.J. 1, 3 (1999) (stating that patent litigation "dictate[s] that expert testimony is virtually essential in assisting the trier of fact to understand the evidence and to resolve factual issues in litigation").

346. See, e.g., Edwin H. Taylor & Gleen E. Von Tersch, *A Proposal To Shore Up the Foundations of Patent Law that the Underwater Line Eroded*, 20 HASTINGS COMM. & ENT. L.J. 721, 740 (1998).

In the patent office setting, the USPTO does have avenues for producing admissible “evidence.” Patent examiners can, by rule, provide an affidavit describing “the facts within the personal knowledge of an employee of the [USPTO].”³⁴⁷ Patent examiners can also request evidence to substantiate an undocumented suggestion from the applicant.³⁴⁸ And the case law does not require detailed analysis to come in the form of testimony via an affidavit or declaration. Cases such as *Lee* and *Beasley* simply call for the USPTO to “articulate[] and place[] on the record” any knowledge they may rely upon to “negate patentability.”³⁴⁹ “Testimony” can consist of a statement made by the examiner or Board. For the testimony to be admissible, it must be detailed and set forth the pertinent analysis. Even in those instances where the rule of evidence may call for more detail and analysis, the USPTO has the tools to create “admissible” evidence without too much administrative burden.

Furthermore, the suggestion test’s rule of evidence is tailored to minimize costs in those instances where the fear of overvaluation is small. As the invention’s technological complexity decreases, so does the stringency of the rule’s requirements.³⁵⁰ Thus, the simpler the technology at issue, the lower the costs on those trying to prove the invention is obvious. This lessening of the standard for admissibility coincides with those circumstances where hindsight bias is not as strong and the factfinder can better test the reliability of the testimony on their own.³⁵¹ These are also the instances where critics see the highest likelihood for Type II errors. Simple technological areas, such as business method invention, and information so well known in an industry it is not documented are the areas where commentators believe the reliance on undocumented suggestions is most needed.³⁵² In these situations, the rule of evidence’s requirement for detail will be at its lowest, and thus the costs the rule creates will also be low. The rule’s balancing between the detail and

347. See 37 C.F.R. § 1.104(d)(2) (2004) (“[The] data shall be as specific as possible.”).

348. See *id.* § 1.105(a)(1) (indicating that the examiner may request “information as may be reasonably necessary to properly examine”).

349. *In re Lee*, 277 F.3d 1338, 1345 (Fed. Cir. 2002); see also *In re Beasley*, 117 F. App’x 739, 743–44 (Fed. Cir. 2004).

350. See *supra* Part V.B.

351. See *supra* Part VI.A.

352. See FED. TRADE COMM’N, *supra* note 9, ch. 4, at 40 (discussing the need for undocumented suggestions to properly determine a business method’s nonobviousness).

analysis required compared to the difficulty of technology at issue addresses the concerns of the ability to prove an obvious invention obvious.

This sliding scale aspect of the rule will also make it easier for the USPTO to establish obviousness in those simple technological cases. Both *Battiston* and *Nylen* are perfect examples of this facet of the rule in action. In both cases, the USPTO offered only rather terse analysis as to why general knowledge in the art or the nature of the problem being solved provided a suggestion to combine the prior art to make the applied-for invention.³⁵³ This was enough because the technology at issue was simple.

With all of this being said, the suggestion test's rule of evidence could be modified to prevent Type II errors. In particular, the rule's requirements could be relaxed in the USPTO setting. Under such a relaxation, courts would consider more undocumented suggestions admissible for a given level of technological complexity when the issue of obviousness is being decided by the USPTO. Put another way, the "rule" depicted in Figure 1 would be adjusted downward, increasing the area of "admissible" evidence of suggestion.

While the office has access to detailed and thorough testimony, such access is not as readily available as in the litigation setting. In addition, the time and monetary resources are just not present at the USPTO to fully flesh out undocumented suggestions in all cases where such suggestions are truly present, but the suggestion test's rule of evidence cannot be met. Finally, the fear of creating Type I errors is less in the USPTO setting because the factfinder—the examiner—is experienced in the relevant technical field. They are, thus, better equipped to avoid hindsight and question the reliability of technical evidence themselves.³⁵⁴

Furthermore, these Type II errors in the examination process can be particularly harmful because such errors cause the nonobviousness standard to be ineffective at the beginning of the patent process. For the system to work properly, obvious patents should not issue from the USPTO. When they do, the social costs are high because the patented invention's obviousness can only be established through

353. See *In re Battiston*, 139 F. App'x 281, 283–84 (Fed. Cir. 2005); *In re Nylen*, 97 F. App'x 293, 294 (Fed. Cir. 2004).

354. Because of the factfinder's sophistication and familiarity with technical information, even reliable scientific evidence is more likely to be properly valued because the factfinder has the tools to perform this evaluation on their own.

litigation and the overcoming of the presumption of validity.³⁵⁵ Relaxing the suggestion test's rule of evidence just a little can help minimize Type II errors at this very early stage of the patent process. These reductions of errors come at a cost savings by reducing the burden of evidence production on examiners.

C. Need for Express Adoption of the Rule

As mentioned previously, one of the strongest possible critiques against this Article's findings is that the Federal Circuit is not consciously implementing the rule as described. The nonobviousness cases over the three year period study just happen to support the Article's descriptive findings. Put another way, the descriptive analysis in this Article is merely outcome determinative, where the cases are characterized in such a way to support the rule being discussed. The argument would be that the judges at the Federal Circuit never intended to create an evidentiary side to the suggestion test, and it is unlikely the rule will hold true in future cases decided by the court.

Such a critique is valid. As previously noted, the court never explicitly articulated the rule described in this Article. The rule, in the Federal Circuit's mind, may not truly exist. This possibility reduces the power behind the descriptive part of this study. Something was "found" that is not really there.

The normative analysis, however, suggests that even if such a rule does not exist, it should—at least in the proposed modified form. Courts should consciously graft an evidentiary aspect to the suggestion test because doing so has many benefits. The rule reduces Type I errors, guarding against overvaluation, such as from hindsight, in the nonobviousness analysis. The rule, particularly if modified as this Article suggests by relaxing the rule in the USPTO setting, does not create many Type II errors and still allows undocumented suggestions to be considered in most cases. Because of this, the Federal Circuit, or better yet the Supreme Court in

355. See 35 U.S.C. § 282 (2000); *Nystrom v. TREX Co.*, 424 F.3d 1136, 1149 (Fed. Cir. 2005) (citing *State Contracting & Eng'g Corp. v. Condotte Am., Inc.*, 346 F.3d 1057, 1067 (Fed. Cir. 2003)). The result is that bad patents are issued. Cf. Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1495-97 (2001) (arguing that there should not be so much focus on ensuring that all patents issued are truly valid).

Teleflex, should expressly articulate the evidentiary-like part of the suggestion test.

Even if the Federal Circuit is conscious of the evidentiary aspect of the suggestion test, express adoption by the Supreme Court or the Federal Circuit has its own benefits. Expressly setting forth the rule would answer much of the recent criticism arguing that only documented suggestions can prove obviousness. In addition, the transparency would make it easier for all patent observers to evaluate nonobviousness questions. Lower courts and the USPTO would know the law under which their nonobviousness decisions will be reviewed, and other patent observers could better evaluate a patent's potential invalidity.

VII. VIEWING OTHER PATENT LAW DOCTRINES THROUGH AN EVIDENTIARY LENS

The evidentiary focus of this Article, while directly contributing to the current discourse on the nonobviousness requirement, can also prove useful in the examination of other patent doctrines. In particular, an evidentiary lens has both descriptive and normative powers. First, the operation of other traditionally substantive areas of patent law can be better understood when looked at through an evidentiary lens. Once the descriptive benefits of the evidentiary lens are realized, the normative part of the lens can help fully evaluate these patent doctrines. The use of evidence theory facilitates the complete evaluation of areas of patent law that have evidentiary facets.

To provide an example of the use of the evidentiary lens beyond nonobviousness, two other substantive areas of patent law are briefly discussed: claim interpretation and inventorship. Both have evidentiary-like aspects that, when identified as such, give a fuller understanding to the two doctrines. In addition, the development of both doctrines can benefit from being evaluated under the evidence law goal of maximizing the likelihood of correct factual determinations.

A. Claim Interpretation

The first area of patent law that benefits from an evidentiary lens is patent claim interpretation. Patent claim interpretation is the process in which a court gives meaning to claim terms in order to

better define the invention being covered, thereby clarifying the scope of exclusivity.³⁵⁶ Claim interpretation is an essential first step in almost all patent inquiries—particularly validity and infringement.³⁵⁷

While the main thrust of claim interpretation is substantive,³⁵⁸ the concept of evidence plays a significant role. For starters, the Federal Circuit categorizes the various interpretative sources as either “intrinsic evidence” or “extrinsic evidence.” Intrinsic evidence are those information sources unique to the patent claim being construed, while extrinsic evidence are sources that are independent of the claim. A major portion of claim interpretation jurisprudence focuses on when either of these sources may be used by a court when construing a claim. In general, the use of intrinsic evidence is favored over that of extrinsic evidence.³⁵⁹ This preference is traditionally justified on public notice grounds.³⁶⁰

The choice can also be viewed as being driven by evidentiary concerns.³⁶¹ Extrinsic evidence usually comes in the form of expert

356. See *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 339 (1961) (“[T]he claims made in the patent are the sole measure of the grant . . .” (citing *Mercoid Corp. v. Mid-Continent Co.*, 320 U.S. 661, 667 (1944))).

357. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 374 (1996); *TI Group Auto. Sys. (N. Am.), Inc. v. VDO N. Am., L.L.C.*, 375 F.3d 1126, 1139 (Fed. Cir. 2004) (“[The] validity analysis is a two-step procedure: ‘The first step involves the proper interpretation of the claims. The second step involves determining whether the limitations of the claims as properly interpreted are met by the prior art.’” (quoting *Beachcombers, Int’l, Inc. v. WildeWood Creative Prods., Inc.*, 31 F.3d 1154, 1160 (Fed. Cir. 1994))).

358. See *Cotropia*, *supra* note 193, at 65–69 (explaining that one of claim interpretation’s main functions is to substantively define the patent’s scope).

359. See *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1584 (Fed. Cir. 1996). In general, extrinsic evidence can only be used to define claim terms when a claim’s meaning remains ambiguous after consulting all three forms of intrinsic evidence. *Id.* at 73–74; see also *Hormone Research Found., Inc. v. Genentech, Inc.*, 904 F.2d 1558, 1562 (Fed. Cir. 1990).

360. See *Vitronics*, 90 F.3d at 1583 (“[C]ompetitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee’s claimed invention, and thus design around the claimed invention Allowing the public record to be altered or changed by extrinsic evidence introduced at trial, such as expert testimony, would make this right meaningless.”).

361. The Federal Circuit has attempted to take an evidentiary view before, but got caught up in the procedural devices surrounding technical rules of evidence. See *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (noting that the court, while disfavoring the usage of extrinsic evidence, has “not set forth any rules regarding the admissibility of expert testimony into evidence”).

In a way, the evidentiary-like properties of claim interpretation are similar to those of the suggestion test. The court is not using them to deny the actual admissibility of disfavored evidence. Instead, the court simply instructs that one cannot “rely” on certain kinds of evidence. See *id.* (explaining that “it is improper to rely on extrinsic evidence” in certain

testimony or inventor testimony.³⁶² This testimony is created specifically for the question of claim interpretation at hand. Because of the testimony's time of creation and the testifier's relation to one of the litigation parties, the testimony may be "colored by the motives of the parties" or "inspired by litigation."³⁶³ These concerns are evidentiary ones. There is a worry about the veracity of such extrinsic evidence, and thus, it is usually not considered. While a concern for public notice justifies extrinsic evidence's exclusion, recognition of evidentiary concerns provides a fuller story. In addition, once this evidentiary-like aspect to claim interpretation is identified, it may be tweaked to maximize its truth maximization purpose. For example, the recent debate over the consideration of certain types of extrinsic evidence, such as dictionaries, would have been better informed if an evidentiary angle would have also been fully considered.³⁶⁴

B. Inventorship

The concept of inventorship in patent law can also be viewed through an evidentiary lens. Patent law, in general, awards a patent to the first party to invent the claimed invention.³⁶⁵ The concept of invention is, however, not that simple—particularly when two parties claim to be the first to invent. The "priority of invention goes to the first party to reduce an invention to practice unless the other party can show that it was the first to conceive of the invention and that it

circumstances). The doctrine is still operating in an evidentiary-like fashion, it is just not using an explicit rule of evidence.

362. See *Vitronics*, 90 F.3d at 1583.

363. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005) (en banc) (noting that "extrinsic evidence consisting of expert reports and testimony is generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence," and that this "bias can be exacerbated if the expert is not one of skill in the relevant art or if the expert's opinion is offered in a form that is not subject to cross-examination"); *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202–03 (Fed. Cir. 2002) (discussing what sets dictionaries, encyclopedias, and treatises apart from expert testimony).

364. *Texas Digital* started this part of the discussion, noting that dictionaries are insulated from biases that may damage other expert evidence such as expert testimony. *Tex. Digital*, 308 F.3d at 1202–03. Whether this is the case or not was never fleshed out by the Federal Circuit or commentators. See, e.g., *Phillips*, 415 F.3d at 1319–23. Instead, the focus was more on the inclusion of dictionaries impact on public notice, certainty, the substantive claim scope, or information costs. See, e.g., Cotropia, *supra* note 193, at 102–16 (demonstrating that even the author failed to recognize the evidentiary lens).

365. See 35 U.S.C. § 102(g) (2000).

exercised reasonable diligence in later reducing that invention to practice.”³⁶⁶ Thus, inventorship depends on a finding of conception and a reduction to practice.³⁶⁷

While the concept of inventorship is heavily substantive, focusing on mental and actual incarnations of a working invention, the doctrine also has an evidentiary side. If an inventor testifies to her own conception or reduction to practice, that testimony must be corroborated to establish inventorship.³⁶⁸ Uncorroborated testimony by the inventor cannot, by itself, establish inventorship.³⁶⁹ Some independent evidence, which can be circumstantial, must support the inventor’s testimony for a court or the USPTO to even consider whether inventorship has been established.³⁷⁰ The requirement for corroboration, therefore, creates an evidentiary-like rule that mandates a certain type of evidence be presented—corroborating evidence—before a decision maker can even consider making a substantive determination as to whether they are an inventor or not.

Using an evidentiary lens not only better describes the corroboration requirement, but it also more accurately identifies the purpose of the requirement. Corroboration is required because the “inventor may have a motive to assert his claim in a self-serving manner.”³⁷¹ Demanding corroboration before the substantive inquiry

366. *Cooper v. Goldfarb*, 154 F.3d 1321, 1327 (Fed. Cir. 1998) (citing *Price v. Symsek*, 988 F.2d 1187, 1190 (Fed. Cir. 1993)).

367. “Conception is the ‘formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention’” See *Hybritech, Inc. v. Monoclonal Antibodies*, 802 F.2d 1367, 1376 (Fed. Cir. 1986) (quoting *Coleman v. Dines*, 754 F.2d 353, 359 (Fed. Cir. 1985)). Reduction to practice can either be constructive, via the filing of a patent application, or actual. *Id.*; Michael F. Ciralo, *Application of the Corroboration Requirement to Interference Proceedings and Other Sections of 102*, 84 J. PAT. & TRADEMARK OFF. SOC’Y 531, 532 (2002). Actual reduction to practice entails creating an embodiment that includes all the limitations of the patent claim and recognizing that the embodiment works for its intended purpose. See *UMC Elecs. Co. v. United States*, 816 F.2d 647, 652 (Fed. Cir. 1987); Ciralo, *supra*, at 532.

368. *Cooper*, 154 F.3d at 1330; Ciralo, *supra* note 367, at 532–33.

369. See *Allen v. Blaisdell*, 196 F.2d 527, 529 (C.C.P.A. 1952) (noting that the requirement of corroboration “is inviolable and the tribunals of the Patent Office and the courts may not depart from it”).

370. See *Cooper*, 154 F.3d at 1330 (discussing the “rule of reason” that applies to circumstantial evidence that may corroborate an inventor’s testimony as to actual reduction to practice); *Horton v. Stephens*, 7 U.S.P.Q.2d 1245, 1248 (B.P.A.I. 1988) (noting that “independent evidence” is needed for corroboration).

371. Ciralo, *supra* note 367, at 532.

begins “prevent[s] fraud and dishonesty.”³⁷² The evidentiary-like corroboration rule was created to more reliably establish the credibility of the inventor’s testimony.³⁷³ Corroboration and the rules of evidence have similar goals—maximizing the likelihood of correct determinations. The inventorship case law has concluded that the potential for a possible inventor to lie about her own inventorship is so high that even testimony a factfinder may find credible by itself is not enough to legally establish inventorship. The testimony, in other words, has a high likelihood to be unreliable, and thus, the courts inject reliability by requiring the presentation of corroborating evidence before the issue of inventorship is handed over to the factfinder. This evidentiary look at inventorship and corroboration can prove extremely helpful in developing the specific requirements for corroboration.³⁷⁴ Since corroboration is an evidentiary creature, what is properly considered corroboration is better defined with the aid of evidence theory.

VIII. CONCLUSION

The descriptive study performed in this Article explains an apparent conflict in Federal Circuit nonobviousness law. The notion of a truly narrow suggestion test is dismissed, and an evidentiary-like aspect of the suggestion test is identified and described. This Article furthers its evidence focus through its examination of the suggestion test’s rule of evidence. The rule clearly reduces erroneous findings of obviousness, but, in its current formulation, does little to diminish, and may even exacerbate, the potential for erroneous findings of nonobviousness. With a little tweaking, specifically lowering the standard in the USPTO context, the suggestion test’s rule of evidence can be an even more potent tool for properly implementing the nonobviousness requirement and maintaining the balance between incentivizing invention and furthering competition. Because of these benefits, the Supreme Court in *Teleflex* should expressly

372. *Id.* at 532–33.

373. *Id.* at 532–34 (discussing the use of the “rule of reason” analysis to determine if testimony given by a witness or documentary evidence support the claims made by the inventor”).

374. Currently, the courts adopt a “rule of reason” approach to “determine whether an inventor’s testimony . . . has been sufficiently corroborated.” *Cooper*, 154 F.3d at 1330 (citing *Holmwood v. Sugavanam*, 948 F.2d 1236, 1238 (Fed. Cir. 1991)).

articulate the rule of evidence aspect of the suggestion test described in this Article.

In addition, the use of an evidentiary lens has benefits beyond the nonobviousness doctrine. Other areas of patent law, such as claim interpretation and inventorship, can benefit from evidence theory. An evidentiary lens helps explain the procedural-like aspects of some patent doctrines and prompts a better appreciation of a doctrine's operation. Furthermore, the normative concepts in evidence law can aid in the evaluation and shaping of other parts of patent law. As a result, courts and commentators should look to apply evidentiary principles outside the context of the nonobviousness doctrine.