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On Courts Herding Cats: Contending with the “Written Description” Requirement (and Other Unruly Patent Disclosure Doctrines)

Mark D. Janis^{*}

Patent systems aspire to stimulate technological progress by eliciting disclosure.¹ It is small wonder, then, that a doctrine such as enablement²—the principal doctrine speaking to the adequacy of a patentee’s disclosure—appears prominently in the early jurisprudence of the U.S. patent system³ and its British antecedents.⁴ It is equally

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1. See generally Rebecca S. Eisenberg, *Patents and the Progress of Science: Exclusive Rights and Experimental Use*, 56 U. CHI. L. REV. 1017 (1989) (discussing the “incentive to disclose” theory and other explanatory theories of patent systems). Courts frequently characterize the patentee’s disclosure as the “consideration” for the patent grant:

[An inventor] may keep his invention secret and reap its fruits indefinitely. In consideration of its disclosure and the consequent benefit to the community, the patent is granted. An exclusive enjoyment is guaranteed him for seventeen years, but, upon the expiration of that period, the knowledge of the invention ensures to the people, who are thus enabled without restriction to practice it and profit by its use. . . . To this end the law requires such disclosure to be made in the application for patent that others skilled in the art may understand the invention and how to put it to use.

United States v. Dubilier Condenser Corp., 289 U.S. 178, 289 U.S. 178, 186-87 (1933).

2. The enablement requirement “demands that the patent specification enable ‘those skilled in the art’ to make and use the full scope of the claimed invention without ‘undue experimentation.’” *National Recovery Technologies, Inc. v. Magnetic Separation Sys., Inc.*, 166 F.3d 1190, 1195 (Fed. Cir. 1999). Under current U.S. law, the enablement doctrine is codified in 35 U.S.C. § 112, para. 1 (1984) which provides that

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Id.

3. For example, Justice Story, riding circuit, invoked disclosure requirements in an early case when he stated:

It is therefore argued, that if the specification be materially defective, or obscurely or so loosely worded, that a skillful workman in that particular art could not construct the

unsurprising that enablement is one of the international minimum standards for Trade-Related Aspects of Intellectual Property Rights (“TRIPs”)-compliant patent systems⁵ and that, with the rise of

machine, it is a good defence against the action, although no intentional deception has been practiced. And this is beyond all question the doctrine of the common law; and it is founded in good reason; for the monopoly is granted upon the express condition, that the party shall make a full and explicit disclosure, so as to enable the public, at the expiration of his patent, to make and use the invention or improvement in as ample and beneficial a manner as the patentee himself. If therefore it be so obscure, loose, and imperfect, that this cannot be done, it is defrauding the public of all the consideration, upon which the monopoly is granted.

Bull. N. P. 77; *Turner v. Winter*, 1 Term R. 602. The motive of the party, whether innocent or otherwise, becomes immaterial because the public mischief remains the same. *Whittemore v. Cutter*, 29 F.Cas. 1120, 1122 (C.C.D. Mass. 1813).

4. For example, Mr. Justice Buller, speaking in *The King v. Arkwright*, Dav. Pat. Cas. 106 (1785), traced the adequacy of disclosure requirement back to the Statute of Monopolies:

If the specification be such that mechanical men of common understanding can comprehend it, to make a machine by it, it is sufficient; but then it must be such that persons skilled in the art or science to which the invention relates may be able to make the machine by following the directions of the specification, without making any experiments, and without any new invention or addition of their own.

See generally WILLARD PHILLIPS, *THE LAW OF PATENTS FOR INVENTIONS*, 284 n.62 (1837) (*citing* *Boulton v. Bull*, 2 H. Bl. 463, 484 (1795)). Indeed, nineteenth century commentary on the origins of the specification invoke both the disclosure requirement and the consideration rationale. According to one early commentator on British patent law, the requirement for a specification grew out of the practice of including a short description of the invention in a patent, as well as an indication that the patentee would later include a particular description of the invention in the Chancery. W.M. HINDMARCH, *A TREATISE ON THE LAW OF PATENT PRIVILEGES FOR TO THE SOLE USE OF INVENTIONS* 151 (1846). Hindmarch reported that:

Specifications were unknown until the reign of Queen Anne; but before that time, it was usual in a patent . . . to insert a recital containing a description of the invention which was made the subject of the grant. And there can be little doubt that a patent without such a recital, and also without a condition requiring a specification or description of the invention in some way or other for the use of the public, would be absolutely void for want of consideration.

Id.

5. Article 29(1) of the TRIPs component of the GATT agreement provides that: “Members shall require that an applicant for a patent shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art . . .” For the full text of the TRIPs component, *see* General Agreement on Tariffs and Trade: Final Act Embodying the Results of the Uruguay Round of the Multilateral Trade Negotiations, Apr. 15, 1994, 33 I.L.M. 1125, 1197 (1994) (Annex 1C: Trade Related Aspects of Intellectual Property Rights).

The preeminence of enablement has been plainly apparent in recent international negotiations. For example, Article 3(1) of the proposed Patent Law Treaty would have incorporated an enablement standard: “The application shall disclose the invention in a manner

modern patent claiming practices and the contemporary obsession with patent claim scope, courts have insisted on correlating the scope of the enabling disclosure with the scope of the claims.⁶

Notwithstanding the historical and conceptual primacy of disclosure and the likelihood that enablement and other disclosure doctrines will bear increasing stress in modern patent disputes,⁷ neither courts nor commentators have ever satisfactorily mapped the full contours of the enablement requirement much less the other extant disclosure requirements. The enablement standard has exhibited markedly little evolution since the days of Justice Story. Instead, the law of adequate patent disclosure in the U.S. and abroad, viewed as a collective body, has been marked by the periodic emergence and proliferation of a multiplicity of specialized doctrines, each purportedly offering tailored responses to perceived individual disclosure deficiencies.

The task of coordinating these doctrines to achieve even modest

sufficiently clear and complete for the invention to be carried out by a person skilled in the art.” *Draft Treaty Supplementing the Paris Convention for the Protection of Industrial Property as Far as Patents Are Concerned (Patent Law Treaty)*, WIPO Doc. PLT/DC3 (Dec. 21, 1990), reprinted in *Records of the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention for the Protection of Industrial Property as Far as Patents Are Concerned*, WIPO Diplomatic Conference, pt. 1, 11-53 (1991), and in Symposium, *The Harmonization of International Patent Law*, 26 J. MARSHALL L. REV. 437, 669-703 (1993). See also HAROLD C. WEGNER, PATENT HARMONIZATION 156 (§ 1445) (1993) (noting that Article 3(1) corresponds to the U.S. enablement requirement.).

6. For example, the Federal Circuit recently summarized the nature and purpose of the enablement requirement as follows:

The enablement requirement of § 112 demands that the patent specification enable “those skilled in the art to make and use the full scope of the claimed invention without ‘undue experimentation.’ . . . The enablement requirement ensures that the public knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims. The scope of the claims must be less than or equal to the scope of the enablement. The scope of enablement, in turn, is that which is disclosed in the specification plus the scope of what would be known to one of ordinary skill in the art without undue experimentation.

National Recovery Technologies, 166 F.3d at 1195-96 (citations omitted).

7. One reason to expect disclosure doctrines to become more significant is that subject matter eligibility doctrines are rapidly becoming insignificant. See, e.g., *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998) (culmination of a long process of erosion of subject matter eligibility obstacles to software patent claims); see also *Pioneer Hi-Bred Int’l, Inc. v. J.E.M. Ag Supply, Inc.*, 2000 WL 37063 (Fed. Cir. 2000) (confirming utility patent eligibility for genetically-enhanced seeds notwithstanding the availability of protection under the Plant Variety Protection Act).

coherence has long been recognized as both formidable and vexing. Willard Phillips, in his 1837 treatise on U.S. patent law, observed of the “requisites of the specification”:⁸

These requisites, it is apparent, are blended and intermixed [They] run so much into each other, in their nature and character, and again are found to be so frequently blended together in the same case, and in the same sentence, that it is difficult to treat of them separately, and yet there is so much variety and diversity among them, that they cannot be treated of together indiscriminately, without confusion.⁹

This state of confusion apparently continued to characterize the disclosure requirements decades later.¹⁰ Yet even to the present day, the subject has received scant judicial attention.

This Article explores the problem of incoherence among modern disclosure doctrines.¹¹ Specifically, it examines the extent to which the Federal Circuit’s unfortunate new dalliance with the “written description” requirement has frustrated coherence both among other disclosure doctrines and in patent law’s doctrinal architecture

8. Section 3 of the 1793 Act governed adequacy of disclosure at the time. Section 3 provided that:

Every inventor, before he can receive a patent, shall deliver a written description of his invention, and of the manner of using, or process of compounding the same, in such full, clear, and exact terms, as to distinguish it from all other things before known, and to enable any person, skilled in the art or science, of which it is a branch, of with which it is most nearly connected, to make, compound, and use the same. And in case of any machine, he shall fully explain the principle, and the several modes in which he has contemplated the application of the principle or character, by which it may be distinguished from other inventions.

See DONALD S. CHISUM, 6 ON PATENTS App. 10 (1999) (full text of the 1793 Act).

9. PHILLIPS, *supra* note 5, at 237.

10. GEORGE TICKNOR CURTIS, THE LAW OF PATENTS FOR USEFUL INVENTIONS 256 (4th ed. 1873).

11. Under current U.S. law three disclosure doctrines are presently recognized as emanating from the first paragraph of 35 U.S.C. § 112—enablement, written description, and best mode. *See, e.g.*, *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1379 (Fed. Cir. 1999) (referring to separate enablement, written description, and best mode requirements). The utility requirement of 35 U.S.C. § 101 presumably would qualify as an additional disclosure requirement. *See, e.g.*, *Process Control Corp. v. Hydroclaim Corp.*, 190 F.3d 1350, 1358-59 (Fed. Cir. 1999) (elaborating on the § 101 utility requirement and its relationship with the “how-to-use” prong of the § 112 enablement requirement).

generally.

The written description requirement purports to measure whether the written description in a patent disclosure “reasonably convey[s] to one of skill in the art that the inventor possessed” the claimed subject matter.¹² Criticized for its “threadbare origins”¹³ and “mysterious” birth,¹⁴ the written description requirement originated in a 1967 Court of Customs and Tax Appeals (“C.C.P.A.”) decision, *In re Ruschig*.¹⁵ The decision involved a patent application that disclosed various reagents and general instructions for preparing classes of chemical compounds but claimed a single chemical species, via a claim added after the filing date.¹⁶ Analogizing the generic disclosure to a forest and the claimed species to a tree, Judge Rich, for the court, concocted an earthy metaphor to explain why he was invalidating the genus claim:

It is an old custom in the woods to mark trails by making blaze marks on the trees. It is no help in finding a trail . . . to be confronted simply by a large number of unmarked trees. Appellants are pointing to trees. We are looking for blaze marks which single out particular trees. We see none.¹⁷

The C.C.P.A. gradually came to employ the written description requirement in three contexts: (1) where claims were amended or newly-added after the filing in a regular ex parte prosecution, raising an issue as to whether the claims were entitled to the application’s filing date; (2) where the patentee asserted that claims in a later application were entitled to the benefit of the filing date of an earlier application under § 120; and (3) where a party asserted that counts in

12. See, e.g., *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1158 (Fed. Cir. 1998).

13. Laurence H. Pretty, *The Recline and Fall of Mechanical Genus Claim Scope Under “Written Description” in the Sofa Case*, 80 J. PAT. & TRADEMARK OFF. SOC’Y 469, 471 (1998).

14. Kevin S. Rhoades, *The Section 112 “Description Requirement”—A Misbegotten Provision Confirmed*, 74 J. PAT. & TRADEMARK OFF. SOC’Y 869, 902 (1992).

15. *In re Ruschig*, 379 F.2d 990 (C.C.P.A. 1967). Efforts to trace the requirement back further are unpersuasive. See *infra* Part I.

16. *Ruschig*, 379 F.2d at 991, 993-95 (describing the contents of the disclosure and setting forth claim 13, the claim at issue).

17. *Id.* at 994-95. In view of the chaotic nature of the doctrine that *Ruschig* has launched, perhaps it is appropriate that *Ruschig* is also the case in which Judge Rich observed memorably that “[t]he life of a patent solicitor has always been a hard one.” *Id.* at 993.

an interference were supported in a specification.¹⁸ Nearly all of these cases involved the chemical arts.

Today, however, the written description requirement enjoys a prominence wholly out of proportion to its humble origins. It is now invoked not only in its three traditional venues¹⁹ but also against claims that were originally filed as part of the written description.²⁰ It has now been applied with unaccustomed vigor to cases in the “predictable” arts.²¹ The United States Patent and Trademark Office

18. See, e.g., *In re Smith*, 481 F.2d 910, 914 (C.C.P.A. 1973) (citing C.C.P.A. authority for each context). Similarly, *In re Bowen*, 472 F.2d 859 (C.C.P.A. 1974), describes “two functions” of the written description requirement: first, “[i]n the simple case, where no prior application is relied upon, the description requirement is that the invention claimed be described in the specification as filed.” *Id.* at 864. Second, “where the benefit of a prior application is being claimed under 35 U.S.C. § 120, the description requirement comes into play as mandating a description of the invention, which is claimed in the later- filed case, in the specification of the application relied upon for support under the statute.” *Id.* at 864.

Notably, early cases did not contemplate applying the written description requirement to cases in which the claims were originally filed with the written description at issue. See, e.g., *Smith*, 481 F.2d at 914 (“Where the claim is an original claim, the underlying concept of insuring disclosure as of the filing date is satisfied, and the description requirement has likewise been held to be satisfied.”) (citing C.C.P.A. authority).

19. See, e.g., *In re Wright*, 866 F.2d 422 (Fed. Cir. 1989) (considering allegation that claims added during prosecution did not enjoy written description support); *Tronzo*, 156 F.3d at 1158 (considering allegation that claims entitled to the benefit of an earlier filing date under § 120 did not enjoy written description support in the earlier-filed application); *Hyatt v. Boone*, 146 F.3d 1348 (Fed. Cir. 1998) (considering allegation that an interference count entitled to the filing date of a party’s specification did not enjoy written description support in that specification).

20. *Regents of the Univ. of California v. Eli Lilly & Co.*, 119 F.3d 1559 (Fed. Cir. 1997). Commentators have been quick to attack the use of the written description requirement in this context. See Janice M. Mueller, *The Evolving Application of the Written Description Requirement to Biotechnological Inventions*, 13 BERKELEY TECH. L. J. 615 (1998); Harris A. Pitlick, *The Mutation on the Description Requirement Gene*, 80 J. PAT. TM. OFF. SOC’Y 209, 222 (1998) (characterizing the *Lilly* decision as an “unmitigated disaster that if followed, has the potential for causing untold havoc in the biotechnology field”).

21. See, e.g., *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998). The extension of the written description requirement from the “unpredictable” to the predictable arts is the focus of one commentator’s recent criticism. See also Pretty, *supra* note 13, at 476-77. For cases discussing the distinction between predictable and unpredictable arts, see, e.g., *In re Vaec*, 947 F.2d 488, 496 (Fed. Cir. 1991) (“Where, as here, a claimed genus represents a diverse and relatively poorly understood group of microorganisms, the required level of disclosure will be greater than, for example, the disclosure of an invention involving a “predictable” factor such as a mechanical or electrical element.”); *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1533 n.5 (Fed. Cir.1987) (“If an invention pertains to an art where the results are predictable, e.g. mechanical as opposed to chemical arts, a broad claim can be enabled by disclosure of a single embodiment.”); *In re Fisher*, 427 F.2d 833, 839 (CCPA 1970) (expressing a similar distinction).

(“PTO”), currently in the process of crafting examiner guidelines for application of the written description requirement, has taken pains to write the guidelines “in a technology neutral manner which is broadly applicable to all areas of technology and to all types of claims (original, new, or amended, and product, process, or product-by-process).”²²

Part I of this Article argues that the distinction between the written description and enablement requirements is artificial.²³ Part II argues that by perpetuating this artificial distinction, the Federal Circuit has impaired the development of a coherent vision of the requirements for adequate disclosure.²⁴ Specifically, by devising an essentially standardless disclosure doctrine that can be deployed arbitrarily, the Federal Circuit has effectively arrogated to itself unbridled authority to strike down claims for inadequate disclosure.

Part III places the problem in comparative perspective, analyzing the jurisprudence of the European Patent Office and the British system for evidence of the same phenomenon, whereby decision makers reach beyond enablement for ill-defined, ancillary disclosure

22. Revised Interim Guidelines for Examination of Patent Applications Under the 35 U.S.C. § 112, para. 1, 64 Fed. Reg. 71427, 71428 (1999) [hereinafter Revised PTO Guidelines]. *Id.* at 71428. The previous iteration of the guidelines included examples devoted exclusively to application of the written description requirement to biotechnology cases, but the PTO decided to omit those examples from the revised guidelines. *Id.* (listed under the heading “Overview of Comments”).

23. This Part seeks to get beyond the issue of whether § 112 is properly construed to impose a separate written description requirement, instead addressing the historical rationale and policies that have been offered in support of the distinction. The statutory construction issue is, in any event, largely intractable. For opposing views on the proper construction of § 112, para. 1, see, e.g., *In re Barker*, 559 F.2d 588, 591-92 (C.C.P.A. 1977) (arguing that the language “written description” is rendered superfluous if § 112, para. 1 is construed to impose only an enablement requirement); *cf. Barker*, 559 F.2d at 594-95 (Markey, J., dissenting) (attacking the majority’s analysis). See also Rhoades, *supra* note 14, at 870-73 (arguing that under a proper statutory construction, no separate written description requirement would be recognized).

24. By coherence I mean to refer to a relationship going beyond strict logical consistency—a matter of “consistency plus.” See, e.g., William A. Edmundson, *The Antinomy of Coherence and Determinacy*, 81 IOWA L. REV. 1, 2 (1996); Kenneth J. Kress, *Legal Reasoning and Coherence Theories: Dworkin’s Rights Thesis, Retroactivity, and the Linear Order of Decisions*, 72 CALIF. L. REV. 369, 370 (1984) (describing coherence as occupying a middle ground between logical consistency and logical entailment). See also Kenneth J. Kress, *Coherence*, BLACKWELL COMPANIONS TO PHILOSOPHY: A COMPANION TO PHILOSOPHY OF LAW AND LEGAL THEORY 535, 542 (Dennis Patterson, ed. 1996). “Partitioning” between doctrines, policies, or principles can be antithetical to coherence. See generally Edmundson, 81 IOWA L. REV. at 15-17.

doctrines. This Part argues that both the European notion of article 84 “support” and the British notion of “fair basis” illustrate the same unfortunate tendencies of the United States written description requirement. Finally, Part IV concludes with a brief analysis of why written description or analogous doctrines seem to proliferate spontaneously on the landscape of patent disclosure requirements, concluding that the fault lies in courts’ hesitancy to explore the power of the enablement requirement.

I.

Today, the Federal Circuit treats the existence of the written description requirement as a *fait accompli*. Rarely does the Federal Circuit pause to explain the supposed benefits of maintaining separate enablement and written description requirements,²⁵ apparently taking the view that at this stage, such explanations would only benefit the “uninitiated.”²⁶

This substantial block of case law lends the written description requirement a certain superficial pedigree; but it should not mask the fact that neither the Federal Circuit nor the C.C.P.A. has ever articulated a persuasive rationale for distinguishing the written

25. See, e.g., *In re Alton*, 76 F.3d 1168, 1172 (Fed. Cir. 1996) (reciting without explanation that the “adequate written description requirement . . . is distinct from the enablement and best mode requirements”); *In re Wilder*, 736 F.2d 1516, 1520 (Fed. Cir. 1984) (citing C.C.P.A. authority: “The description requirement is found in 35 U.S.C. § 112 and is separate from the enablement requirement of that provision.”). See also *Eiselstein v. Frank*, 52 F.3d 1035 (Fed. Cir. 1995) (applying a separate written description requirement without reference to the possibility of overlap with the enablement requirement); *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993); *In re Hayes Microcomputer Products, Inc. Patent Litigation*, 982 F.2d 1527 (Fed. Cir. 1992).

This tradition of written description requirement *ipse dixit* was handed down from the Federal Circuit’s predecessor court. See, e.g., *Barker*, 559 F.2d at 591 (“This court has clearly recognized that there is a description of the invention requirement in 35 U.S.C. § 112, first paragraph, separate and distinct from the enablement requirement.”); *In re Bowen*, 492 F.2d at 864 (“The so-called ‘description requirement’ . . . exists in the first paragraph independent of the enablement (how to make and how to use) portions”); *Smith*, 481 F.2d at 914 (“This court has repeatedly recognized a separate description requirement in the first paragraph of § 112.”). For a review of C.C.P.A. precedent on the written description requirement, see Rhoades, *supra* note 14, at 873-84.

26. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1560 (Fed. Cir. 1991) (“To the uninitiated, it may seem anomalous that the first paragraph of 35 U.S.C. § 112 has been interpreted as requiring a separate ‘description of the invention’”).

description requirement from the enablement requirement. On the rare instances when the courts have attempted to justify the distinction, the justifications—whether based on historical, political, or other theory—have proven singularly disappointing.

Perhaps the most dubious of these theories is the historical rationale.²⁷ The historical rationale for the written description requirement derives from the Supreme Court’s interpretation of a predecessor to § 112 in *Evans v. Eaton*.²⁸ In *Evans* the Supreme Court declared that a patent specification must function not only to enable “artizans” to make and use the claimed invention but also “to put the public in possession of what the party claims as his own invention.”²⁹ This superficially appealing historical basis for a written description requirement distinct from enablement cannot withstand scrutiny, however.³⁰ *Evans* was decided at a time when United States patents were not required to contain claims.³¹ Consequently, the

27. The C.C.P.A. attempted to justify the written description requirement on the basis of an historical rationale in *Barker*, 559 F.2d at 591-93. Later, the Federal Circuit resorted to a similar historical rationale in *Vas-Cath*, 935 F.2d at 1560-61. It is particularly curious that Judge Rich invoked history in *Vas-Cath* given that he seemed disinclined to accept any such rationale in his own concurring opinion in *Barker*:

The basic problem here is simple . . . and there is no need to justify it by extensive review of the evolution since 1790 of the language of § 112, first paragraph. Considering the evolutionary history of the language of § 112, I do not subscribe to its interpretation through assumptions based on presumptions about usage of superfluous words and the like.

Barker, 559 F.2d at 594 (Rich, J., concurring). See also *id.* at 594 (Markey, J., dissenting) (“The attempt to create historical and current statutory support for a ‘separate description’ requirement, which was solely a judicial (and unnecessary) response to chemical cases in which appellants were arguing that those skilled in the art ‘might’ make and use a claimed invention, is mistaken.”).

28. 20 U.S. (7 Wheat.) 356 (1822).

29. *Id.* at 433-34, 95 quoted in *Vas-Cath*, 935 F.2d at 1561.

30. Mueller, *supra* note 20, at 619-20.

31. Both *Barker* and *Vas-Cath* acknowledge as much, but in neither case does the court seem to grasp the significance of this fact. See *Barker*, 559 F.2d at 592, n.4 (noting parenthetically that “[t]he 1793 Act did not require claims”); *Vas-Cath*, 935 F.2d at 1561 (“The patent laws then in effect, namely the Patent Act of 1793, did not require claims . . .”). *Barker* appears to imply that contemporary secondary authorities would have supported the notion of a separate written description requirement, citing, for example, the following passage from Professor Robinson’s treatise:

According to the statutes, the Description must contain full explanations of three different subjects: the invention itself; the manner of making it; and the mode of putting it to practical use—a complete knowledge upon all these points being

patentee's description needed not only to enable practice of the invention, but also to put the public on notice as to what the patentee considered to be the protected invention. Read in context the "possession" language of *Evans* clearly is directed towards satisfying this notice function, one which the modern written description does not require.³²

While history does not provide compelling justification for the written description requirement, history may provide some insights into current attitudes that are manifested in applications of the requirement. For example, the evolution of the written description requirement is intertwined with the development of the new matter prohibition currently codified in § 132.³³ Some C.C.P.A. cases subsequent to *Ruschig* seem to treat the new matter prohibition and the written description requirement interchangeably.³⁴ Today, the law has definitively moved away from this position. Amendments to the specification may raise a § 132 new matter issue, while amendments to the claims may raise a § 112 written description issue.³⁵

necessary to render the invention available to the public without further experiment or exercise of inventive skill.

Barker, 559 F.2d at 593 n.5, citing W. ROBINSON, 2 THE LAW OF PATENTS 73 (1890). This passage plainly does not support a separate written description requirement as applied in modern patent law. Instead, it merely calls upon the specification to describe what is necessary to enable, to "render the invention available to the public without further experiment . . ."

32. Specifically, the relevant passage from *Evans* highlights that the specification must:

put the public in possession of what the party claims as his own invention, so as to ascertain if he claims anything that is in common use, or is already known, and to guard against prejudice or injury from the use of an invention which the party may otherwise innocently suppose not to be patented. It is, therefore, for the purpose of warning an innocent purchaser or other person using a machine of his infringement of the patent; and at the same time of taking from the inventor the means of practising upon the credulity or the fears of other persons, by pretending that his invention is more than what it really is, or different from its ostensible objects, that the patentee is required to distinguish his invention in his specification.

Evans, 20 U.S. (7 Wheat.) at 434, quoted in *Vas-Cath*, 935 F.2d at 1561.

33. 35 U.S.C. § 132 (1994) ("No amendment shall introduce new matter into the disclosure of the invention.").

34. Perhaps most notable is Judge Rich's concurring opinion in *Barker*. Judge Rich at this stage seemed more inclined towards the new matter criterion than the description requirement: "The basic problem here is simple: new matter, in violation of 35 U.S.C. § 132, was inserted by amendment and the claim contains that new matter. It thus lacks support and must be rejected." *Barker*, 559 F.2d at 594 (Rich, J., concurring).

35. Judge Markey explained the distinction:

Nevertheless, the suspicion that attends new matter issues is certainly detectable in modern written description cases.³⁶

Certain rules that developed in connection with reissue practice also provide an historical analogy of interest, though not a historical justification. In *U.S. Industrial Chemicals, Inc.*, the Supreme Court interpreted the then-governing reissue provision³⁷ to require objective intent, manifested in the original patent, to claim the invention later claimed in the reissue patent.³⁸ Federal Circuit law interpreting the current reissue provision³⁹ firmly rejects the “objective intent to

Broadening a claim does not add new matter to the disclosure. Disclosure is that which is taught, not that which is claimed The proper basis for rejection of a claim amended to recite elements thought to be without support in the original disclosure, therefore, is § 112, first paragraph, not § 132. The latter section prohibits addition of new matter to the original disclosure. It is properly employed as a basis for objection to amendments to the abstract, specifications, or drawings attempting to add new disclosure to that originally presented. Past opinions of this court, in cases in which a § 132 claim rejection was reviewed on a § 112 analysis, should not in future be viewed as having approved the employment of § 132 as a basis for claim rejection. The amended claims involved in those cases should have been rejected under § 112, first paragraph. The claim rejections in those cases could then have been explicitly affirmed or reversed on direct applications of § 112, rather than on § 112 analyses applied to § 132 rejections. Accordingly, such cases are overruled insofar as they approved rejection of claims under § 132.

In re Rasmussen, 650 F.2d 1212, 1214-15 (C.C.P.A. 1981) (footnotes omitted).

36. Similar attitudes may have been brought to bear in judicial interpretations of the well-known *Muncie Gear* case. In *Muncie Gear Works, Inc. v. Outboard, Marine & Mfg.*, 315 U.S. 759 (1942), the claimed invention was placed on sale in January or February, 1926. *Id.* at 764. The application was filed on August 25, 1926, well within the two-year time period allowed by the then-governing predecessor to 102(b). *Id.* at 766 (citing R.S. 4886). The claims at issue, along with additional disclosure, were added to the application on March 30, 1929, i.e., more than two years after the sale. *Id.* at 762-63. According to the Federal Circuit and the C.C.P.A., the matter added to the written description would have violated the new matter prohibition as understood today; the claims, accordingly, were not entitled to the August 25, 1926 filing date. The case is merely a garden-variety example of a new matter violation. *See, e.g.*, *Correge v. Murphy*, 705 F.2d 1326, 1329 (Fed. Cir. 1983); *Westphal v. Fawzi*, 666 F.2d 575, 576-77 (C.C.P.A. 1981). However, in *Kahn v. Dynamics Corp. of Am.*, 508 F.2d 939 (2d Cir. 1974), the court assumed that *Muncie Gear* had created a rule of late claiming. *Id.* at 943. While modern written description cases cannot correctly be characterized as pure late claiming cases, the hostility toward amended or newly-added claims certainly is evident.

37. 35 U.S.C. § 64 (1964) (requiring that the reissue patent be “for the same invention” as the original patent).

38. *Id.* at 1413. *U.S. Indus. Chemicals, Inc. v. Carbide & Carbon Chemicals Corp.*, 315 U.S. 668, 676 (1942).

39. 35 U.S.C. § 251 (requiring that the reissue patent be for “the invention disclosed in the original patent”).

claim” test and instead inquires “whether one skilled in the art, reading the specification, would identify the subject matter of the new claims as invented and disclosed by the patentees,”⁴⁰ an inquiry that the Federal Circuit characterizes as being “analogous to the ‘written description’ requirement.”⁴¹ Nevertheless, some modern written description cases seem to express an intent-to-claim rule.⁴² For example, the court’s rhetoric in *Wright*, attempting to capture the “essence” of the written description requirement, had intent-to-claim overtones:

When the scope of a claim has been changed by amendment in such a way as to justify an assertion that it is directed to a *different invention* than was the original claim, it is proper to inquire whether the newly claimed subject matter was *described* in the patent application when filed as the invention of the applicant. That is the essence of the so-called “description requirement” of § 112, first paragraph.⁴³

The *U.S. Industrial Chemicals* decision even found its way into a recent high-profile written description decision.⁴⁴

In addition to invoking history, courts invoke an intuitive logic to justify the written description requirement, with alarming results. Judge Rich attempted such a justification in a non-precedential opinion, *In re Hunter*.⁴⁵ According to Judge Rich:

Although a specification that meets the written description requirement always satisfies the enablement requirement, the converse is not always true. The written description must “enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use” the claimed invention. A patent specification, however, may fortuitously enable those of skill in the art to make and use an

40. *In re Amos*, 953 F.2d 613, 618 (Fed. Cir. 1991). See also *Hester Indus., Inc. v. Stein, Inc.*, 142 F.3d 1472, 1484-85 (Fed. Cir. 1998).

41. *Hester*, 142 F.3d at 1484.

42. The *Gentry Gallery* essential element formulation may be an example. See *infra* notes 81-91 and accompanying text.

43. *Wright*, 866 F.2d at 424.

44. See *infra* notes 93-100 and accompanying text (discussing the *Reiffin* decision).

45. 59 F.3d 181, (table); 1995 WL 364375 (Fed. Cir. 1995).

invention that an applicant did not make before filing the patent application. This latter application would satisfy the enablement requirement, but would not provide a section 112, first paragraph, “written description” adequate to support claims directed toward the later-made invention.⁴⁶

Judge Rich’s analysis is revealing, particularly in its startling reference to “fortuitous” enablement. He apparently calls for judges to distinguish between those inventors who deliberately provided instruction about how to make and use their inventions, and those who “got lucky.” But even this formulation masks the true inquiry, because there is no authority for penalizing inventors who fail to disclose the underlying scientific principles of their inventions.⁴⁷ Instead, it seems Judge Rich opens the door for courts to strike down claims that are later revealed to encompass numerous embodiments and exceed what is expressly disclosed. This is true even where the evidence shows that persons of ordinary skill in the art could interpret the embodiments without undue experimentation.⁴⁸

Similar objections might be raised to the C.C.P.A.’s attempt to illustrate the difference between enablement and written description through a simplified example:

[C]onsider the case where the specification discusses *only* compound A and contains *no* broadening language of any kind. This might very well enable one skilled in the art to make and use compounds B and C; yet the class consisting of A, B and C has not been described.⁴⁹

This illustration does not justify a separate written description requirement. The illustration is contrived; it seems highly improbable that enablement would be satisfied given the condition that the applicant’s disclosure “contains no broadening language”—

46. 1995 WL 36475 at **5 (citations omitted).

47. See, e.g., *Newman v. Quigg*, 877 F.2d 1575, 1581 (Fed. Cir. 1989) (declaring that “it is not a requirement of patentability that an inventor correctly set forth, or even know, how or why the invention works.”); *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1570 (Fed. Cir. 1983) (“[I]t is axiomatic that an inventor need not comprehend the scientific principles on which the practical effectiveness of his invention rests.”).

48. See *infra* Part II.

49. *In re DiLeone*, 436 F.2d 1404, 1405 n.1 (C.C.P.A. 1971).

apparently meaning it contains no express “broadening” language. However, if the genus is small or the technology mundane, those of ordinary skill in the art might employ the applicant’s express instruction to make and use compounds B and C without undue experimentation. These very conditions—small genus, mundane technology—seem equally applicable to the conclusion that an express description of A would be deemed an implicit description of the entire class. Indeed, a contrary conclusion requires a powerful justification that the example fails to provide. Even if the inventor was cognizant of the full breadth of his claim as of the application filing date, what justifies penalizing the inventor if the extent of his teaching reached to compounds B and C?⁵⁰

In addition to invoking history and logic, courts have attempted to justify the written description requirement on policy grounds. In general, these arguments are feeble.⁵¹ For example, in *Smith* the court states that the “essential goal” of the written description requirement is to substantiate the evidence of completion of the act of invention:

Satisfaction of the description requirement insures that subject matter presented in the form of a claim subsequent to the filing date of the application was sufficiently disclosed at the time of filing so that the prima facie date of invention can fairly be held to be the filing date of the application.⁵²

This statement is an important summary of judicial attitudes about the written description requirement as a safety valve that supplements enablement.⁵³ However, it assumes that enablement needs

50. Others have criticized this example. See, e.g., Rhoades, *supra* note 14, at 899-900.

51. This is particularly the case in the Federal Circuit era. For example, *Vas-Cath* purports to offer a policy-based rationale for the written description requirement, but the analysis simply rehashes C.C.P.A. precedent. *Vas-Cath*, 935 F.2d at 1561-63.

52. See, e.g., *Smith*, 481 F.2d at 914 (noting in relation that the written description requirement seeks to ensure that the specification as originally filed “convey[s] clearly to those skilled in the art the information that the applicant has invented the specific subject matter later claimed.”). See also Rhoades, *supra* note 14, at 895 (identifying the passage in *Smith* as “probably the most perspicuous statement” of the purpose of the written description requirement and proceeding to conclude that in view of the stated purpose the written description requirement is redundant of the enablement requirement).

53. As Professor Mueller quite aptly states, written description has become “an effective ‘super enablement’ standard of uncertain scope and applicability.” See Mueller, *supra* note 20, at 617.

supplementing—that a fully enabling description might nonetheless be insufficient to justify a constructive reduction to practice.⁵⁴ Proponents of the written description requirement have yet to explain exactly what benefits the requirement provides that are not already provided by the enablement requirement.

II.

The previous Part argued that no compelling reason to recognize a distinct written description requirement exists. This Part argues that maintaining the fiction of a distinction between the written description requirement and the enablement requirement imposes substantial costs. Patentees pay for the uncertainties of the written description requirement in terms of potential erosion to the value of the patent right.⁵⁵ The patent system will never be free of uncertainty costs, but, as this Part seeks to demonstrate, they are especially egregious in connection with the written description requirement. Neither the PTO nor the Federal Circuit has managed to codify the inherent uncertainties of the requirement within any workable standard. This Part concludes by considering the way in which the written description requirement imposes costs by impairing

54. One scholar who is otherwise critical of the application of the written description requirement seems to accept the proposition that the requirement is necessary to substantiate the *prima facie* invention date and thus prevent inventors from capturing a “windfall vis-à-vis the prior art.” [sic] Mueller, *supra* note 20, at 622 (arguing that “[a]bsent written description scrutiny, a later-presented claim not truly entitled to the earlier filing date of the application would be improperly examined against a smaller universe of prior art than is legally available”). However, the later-filed claim would have to be supported by an enabling disclosure in order to be entitled to the benefit of the application filing date. Thus, it is not clear why the written description requirement is strictly needed in this scenario, even though courts are accustomed to using it.

55. The Federal Circuit has even been known to confound itself as to the nature of the written description requirement. Compare *Kennecott Corp. v. Kyocera Int’l, Inc.*, 835 F.2d 1419, 1421 (Fed. Cir. 1987) (“The purpose of the description requirement . . . is to state what is needed to fulfill the enablement criteria. These requirements may be viewed separately, but they are intertwined.”) with *Vas-Cath*, 935 F.2d at 1563 (“To the extent that *Kennecott* conflicts with [a prior Federal Circuit decision] we note that decisions of a three-judge panel of this court cannot overturn prior precedential decisions . . . [W]e hereby reaffirm, that 35 U.S.C. § 112, first paragraph, requires a ‘written description of the invention’ which is separate and distinct from the enablement requirement.”). Previously, Judge Rich had insisted on the one hand that enablement and written description were distinct while admitting that the two requirements were “commingled.” *Barker*, 559 F.2d at 594 (Rich, J., concurring).

coherence among disclosure doctrines.

A. Grasping for “Possession”: The PTO Guidelines

Recent efforts to elaborate the “possession” standard both confirm the substantial redundancy of the enablement and written description requirements and illustrate the capacity of the written description requirement to serve as a tool for judicial improvisation. This subpart considers recent PTO efforts to flesh out “possession” and then addresses Federal Circuit efforts, especially those focusing on the “essential element” gloss.

The PTO took up the task of refining the possession standard in the latest iteration of the PTO written description requirement guidelines.⁵⁶ The *Revised PTO Guidelines* contemplate two basic routes toward satisfaction of the possession standard: first, by describing an actual reduction to practice of the claimed invention;⁵⁷ and, second, “by showing that the invention was ‘ready for patenting’ such as by the disclosure of drawings or other descriptions of the invention that are sufficiently specific to enable a person skilled in the art to practice the invention.” Employing these basic notions, the *Revised PTO Guidelines* attempt to provide guidance for testing written description compliance of originally filed claims as well as new or amended claims.⁵⁸ For example, in considering written description compliance of an originally filed claim drawn “to a single embodiment or species,” the disclosure must either “describe” an

56. See *supra* note 22.

57. Revised PTO Guidelines, *supra* note 22, at 71434 (citing *Pfaff v. Wells Electronics, Inc.*, 119 S. Ct. 304, 312 (1998)). The PTO’s incorporation of the *Pfaff* standard is of interest because it probably represents an extension of current Federal Circuit law, whereas in other respects the PTO insists that it is merely implementing existing Federal Circuit law in the guidelines.

58. The *Revised PTO Guidelines* send a mixed message as to how frequently written description support will be at issue in cases involving originally-filed claims. On the one hand, the *Revised PTO Guidelines* announce that there is a “strong presumption” of satisfaction of the written description requirement where the claims at issue were originally filed in the application. Revised PTO Guidelines, *supra* note 22, at 71435 (citation omitted) (predicting that “rejection of an original claim for lack of written description should be rare.”). On the other hand, the Revised Guidelines set forth an elaborate set of rules for assessing written description compliance for originally-filed claims, but only deal perfunctorily with rules for assessing compliance with new or amended claims.

actual reduction to practice, include drawings depicting in “sufficient” detail the “new or not conventional” features of the invention, or disclose “sufficiently detailed relevant identifying characteristics” of the invention.⁵⁹ The same rules apply for claims drawn “to a genus” except that the description of the actual reduction to practice need only be a description of a “representative number of species.”⁶⁰ By contrast, for new or amended claims, or claims seeking the benefit of an earlier priority date or filing date, the *Revised PTO Guidelines* offer only perfunctory guidance, demanding simply that “each claim limitation must be expressly, implicitly, or inherently supported in the originally filed disclosure.”⁶¹

While the PTO deserves kudos for its admirable effort to create something from nothing, the *Guidelines* do little to bring the written description requirement out from under the shadow of enablement. For example, assessing “possession” by way of the *Pfaff* standard appears to call explicitly for an enablement analysis. Assessing possession, by analyzing the description of an actual reduction to practice, simply raises an additional question as to the quality of the increment of additional disclosure, beyond enabling disclosure, that is required of a patent applicant in order to avoid a written description problem.⁶² Moreover, it simply restates the standard to say, for example, that possession is shown by drawings that disclose “sufficient detail” or written disclosure revealing “sufficiently detailed relevant identifying characteristics.”⁶³

B. In Search of the Essential: Gentry Gallery and Progeny

Notwithstanding critical commentary on the shortcomings of the possession standard, the Federal Circuit has been enamored with the

59. Revised PTO Guidelines, *supra* note 22, at 71435.

60. Presumably, most claims would fall into this category. *Id.* at 71436.

61. *Id.*

62. The circularity problem is particularly evident in regards to the requirement of disclosure of a “representative” number of species in order to provide an adequate written description of a genus claim. The *Guidelines* define “representative species” to mean that “the species which are adequately described are representative of the entire genus.” *Id.*

63. *Id.* The same criticism could be directed to the use of the “support” rubric in the rules for new and amended claims.

possession test practically since the court's inception.⁶⁴ Although the Federal Circuit nibbles around the edges of the standard, it has rarely, if ever, succeeded in giving the standard any real content.⁶⁵

In *Lockwood v. American Airlines, Inc.*, the Federal Circuit asserted that a description that merely renders a claimed invention obvious does not satisfy the possession test.⁶⁶ On the other hand, “*ipsis verbis* disclosure is not necessary to satisfy the written description requirement.”⁶⁷ In *Fujikawa v. Wattanasin*, the court attempted to identify the middle ground by dusting off the “blaze marks” metaphor from *Ruschig*:⁶⁸

64. See Harris A. Pitlick, *Looking Beyond Blazemarks on Trees—It's Time to Revisit the Description Requirement in the Wake of Warner-Jenkinson*, 79 J. PAT. & TRADEMARK OFF. SOC'Y 625, 635 (1997) (arguing that the possession test is especially difficult to apply to claims that have been narrowed during prosecution). Pitlick does not go so far as to repudiate the possession test, instead advancing an incentive test that is designed to serve as an “adjunct” to the possession test. *Id.* at 640. See, e.g., Rhoades, *supra* note 14, at 893-94 (criticizing the possession test as too subjective). See also *In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983) (endorsing the possession test).

65. To be sure, in *Fiers v. Ravel*, the Federal Circuit did attempt to give the possession standard some degree of independent significance, but only in the specialized context of DNA inventions. The court emphasized that possession requires a degree of specificity:

An adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself A bare reference to a DNA with a statement that it can be obtained by reverse transcription is not a description; it does not indicate that Revel was in possession of the DNA. . . . As we stated in *Amgen* . . . such a disclosure just represents a wish, or arguably a plan, for obtaining the DNA . . . one cannot describe what one has not conceived.

984 F.2d 1164, 1170-71 (Fed. Cir. 1993). Tellingly, however, the court relied heavily upon *Amgen*, an enablement case, as its principal authority. *Id.* at 1171 (referring to *Amgen Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200 (Fed. Cir. 1991)).

66. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997) (“One shows that one is in ‘possession’ of the invention by describing the invention, with all its claimed limitations, not that which makes it obvious.”) (emphasis in original). The embedded reference to “describing” makes the definition circular in any event.

The *Lilly* court added a corollary: “[A] *fortiori*, a description that does not render a claimed invention obvious does not sufficiently describe that invention for purposes of § 112, para. 1.” *Eli Lilly & Co.*, 119 F.3d at 1567 (emphasis in original).

67. *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1570 (Fed. Cir. 1996). See also *Alton*, 76 F.3d at 1175 (“If a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate written description requirement is met.”).

68. See *supra* note 17 and accompanying text.

Were we to extend *Ruschig*’s metaphor to this case, we would say that it is easy to bypass a tree in the forest, even one that lies close to the trail, unless the point at which one must leave the trail to find the tree is well marked. Wattanasin’s preferred embodiments do blaze a trail through the forest; one that runs close by Fujikawa’s proposed tree. His application, however, does not direct one to the proposed tree in particular, and does not teach the point at which one should leave the trail to find it.⁶⁹

The Federal Circuit’s ambivalence toward the content of the written description standard is also evident in *Hyatt v. Boone*.⁷⁰ In *Hyatt*, the Board pointed out that the written description on which Hyatt sought to rely did not expressly disclose the limitations of the interference count.⁷¹ The Board insisted that disclosure would satisfy the written description requirement if the “necessary and only reasonable construction” a person skilled in the art would give was one that clearly supported each positive limitation in the count.⁷²

While the Board’s standard seems entirely consistent with the standard used to evaluate claims of inherent disclosure, it arguably calls for more disclosure than a straightforward “possession” standard would require.⁷³ The Federal Circuit claimed to see no distinction between the possibly competing standards, but then adopted the necessity criterion:

Precedent has used both phrases, as well as others. . . . We do not view these various expressions as setting divergent standards for compliance with § 112. In all cases, the purpose

69. *Fujikawa*, 93 F.3d at 1571.

70. 146 F.3d 1348, 1352 (Fed. Cir. 1998) (considering a written description issue in a § 135 interference action against Hyatt’s issued patent). Hyatt sought to establish priority by relying on a 1970 patent application, and Boone argued that the 1970 application did not provide an adequate written description of the interference count. More specifically, Boone claimed an effective filing date of July, 1971 (through nine prior applications). Hyatt sought to rely on a December 28, 1970, application arguing that, even though the 1970 application did not expressly describe the limitations of the interference count, the application did include a claim that was directed to the genus of which the interference count represented a subgenus.

71. *Id.* at 1353.

72. *Id.*

73. *See, e.g., Tronzo*, 156 F.3d at 1158. *See also Hyatt*, 146 F.3d at 1354.

of the description requirement is ‘to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him.’ *In re Edwards*, 568 F.2d 1349, 1351-52, 196 USPQ 465, 467 (CCPA 1978). Thus, the written description must include all of the limitations of the interference count, or the applicant must show that any absent text is necessarily comprehended in the description provided and would have been so understood at the time the patent application was filed.”⁷⁴

Here, as in previous cases, the Federal Circuit missed an opportunity to shed some light on the written description standard.⁷⁵

Perhaps the most important recent development in the unsteady evolution of the possession standard is the “essential element” gloss articulated in *Gentry Gallery*.⁷⁶ The invention in *Gentry Gallery* addressed the anti-social behavior encouraged by the original design of L-shaped sectional sofas. Apparently, Americans want recliners conjoined with their sectional sofas and adjustment controls for their recliners. Unimaginative sofa designers operating under these constraints concluded that they could only position the recliners on either end of the “L.” While this provided an outer arm for each recliner on which controls could be located, it also forced designers to position the recliners at right angles to one another, which might stifle conversation and present inconveniences in television viewing.⁷⁷ The invention disclosed in the patent-in-suit rendered the sectional sofa fit for social interaction by facing the recliners in the same direction and placing a “console” between them to accommodate the adjustment controls.⁷⁸

Apparently, the broadest claims originally filed in the *Gentry Gallery* patent included limitations directed to both the console and the controls, specifying that the controls were “located upon the

74. Hyatt, 146 F.3d at 1354-55.

75. Since issues of inherent disclosure will presumably be at issue in most written description cases, this is not a trivial point.

76. *Gentry Gallery*, 134 F.3d at 1479.

77. *Id.*

78. *Id.* at 1475.

center console.”⁷⁹ However, during the prosecution, the applicant amended several of the claims to define a “double reclining seat sectional sofa section,” a contrived structural label encompassing the pair of recliners and the console. These claims recited the location of the controls more broadly as being “mounted on the double reclining seat sofa section.”⁸⁰

In one respect, the court’s application of a written description analysis is not unlike other written description cases, where the question is whether later-added claims are supported by the original disclosure. In another respect, the court’s deployment of the written description requirement here is fairly unusual, given that the invention resides in the “predictable” mechanical arts.⁸¹

The court found a violation of the written description requirement based on a newly minted “essential element” test.⁸² This test seems to provide that where a disclosure unambiguously identifies certain elements of an invention as “essential” that disclosure only supports later-filed claims, to the extent that those claims recite the essential

79. *Id.* at 1479.

80. *Id.* at 1475 (reciting claim one of the patent-in-suit).

81. The major theme of one commentator’s criticism of *Gentry Gallery* is the incorrectness of extending the written description beyond the “unpredictable” arts (i.e., chemistry, biotechnology, etc.) to the “predictable” ones. Pretty, *supra* note 14, at 476-77.

Perhaps because the invention at issue originated from the “predictable” arts, no enablement issue reached the Federal Circuit. At first glance, it might seem that the “controls on console” disclosure would easily enable the ordinary artisan to make and use the invention without undue experimentation even if the controls were relocated as allowed under the claim at issue. But careful consideration of the evidence, particularly the obviousness evidence, might suggest a different conclusion. Berkline, the defendant, argued that the claimed invention would have been obvious in view of the combination of a standard L-shaped sectional sofa with an armless recliner having a push-button control on its side (described in the “Talley” reference).

134 F.3d at 1477-78. But the evidence showed, to the court’s satisfaction, that redesign of the controls would have been necessary in order to incorporate the Talley recliner into a standard sectional sofa and that redesign would not have been apparent to one of ordinary skill in the art absent experimentation. *Id.* at 1478. This determination might be probative on the enablement question whether a claim to controls mounted anywhere on a “double reclining seat sectional sofa section” is enabled by disclosure of controls mounted on a console. Perhaps a showing could have been made that moving the controls elsewhere than the console would have required undue experimentation. Thus, the court might plausibly have avoided the written description requirement altogether by applying the enablement criterion more thoughtfully.

82. 134 F.3d at 1479-80.

elements.⁸³ The court did not indicate that its essential element test—if, indeed, the court meant to set forth a test—was intended to supplant the “possession” standard, but it takes no great imagination to view the essential element test as a new gloss on the possession standard.

The essential element formulation is counterproductive in several ways. First, it injects the inventor’s subjective intent into the possession standard. That is, proving whether or not an element is essential rests fundamentally on the applicant’s express or inferred intent. For example, the *Gentry Gallery* court appears to have found some significance in the inventor’s testimony that “locating the controls on the console is definitely the way we solved [the problem of building sectional sofa with parallel recliners] on the original group [of sofas].”⁸⁴ The court also made much of the patent application’s recitation of the “objects of the invention” the court reasoned that because the object of the invention referred to using the console to accommodate the controls, it followed that locating the controls elsewhere departed from the object of the invention.⁸⁵ Second, the essential element standard is especially manipulable. It had been well established that allowing judges to dissect claims in search of the “gist” of the invention was contrary to principles of modern claim construction, precisely because it reposed too much faith in hindsight judicial assessment.⁸⁶ The same danger is present when a court is free to dissect a disclosure into those individual

83. *Id.* at 1479 (referring to the “essential element” standard).

84. 134 F.3d at 1478. This enhances the power of the written description requirement as a litigation weapon, much in the manner of the best mode requirement. *See, e.g.*, *Pretty*, *supra* note 13, at 478-79 (commenting critically on the subjective aspect of the essential element formulation).

85. 134 F.3d at 1479. The court finally did shift into what seems a more objective analysis, considering whether one of ordinary skill in the art would have “clearly” understood which elements were “important” and which were accessible. *Id.* at 1480.

86. Indeed, Judge Rich cited this principle in *Vas-Cath* as the basis for error in a lower court’s written description analysis. In the district court, Judge Easterbrook, sitting by designation, had opined that the disclosure at issue (drawings from a design patent) failed the written description requirement because the drawings did not “describe what is novel and important” in the claimed invention. *Vas-Cath Inc. v. Mahurkar*, 745 F. Supp. 517, 522 (N.D. Ill. 1990). Reciting the familiar maxim that there is “no legally recognizable or protected ‘essential’ element . . . of the invention,” the Federal Circuit concluded that it was error for Judge Easterbrook to have strayed from the claimed invention. 935 F.2d at 1565.

components deemed essential and those deemed non-essential.

Fortunately, judicial reaction to *Gentry Gallery* has not been uniformly enthusiastic. In *Johnson Worldwide Associates, Inc. v. Zebco Corp.*,⁸⁷ Judge Clevenger applied what could prove to be an important limiting gloss on the *Gentry Gallery* “essential element” test. According to Judge Clevenger, “*Gentry Gallery* . . . considers the situation where the patent’s disclosure makes crystal clear that a particular (i.e., narrow) understanding of a claim term is an ‘essential element of [the inventor’s] invention.’”⁸⁸ Under this view, *Gentry Gallery* was based upon “clear statements” that stated the purpose of the invention and statements that “unambiguously limited” the meaning of the key claim language.⁸⁹ Similarly, the court in *Gaus v. Conair Corp.*⁹⁰ commented that it did “not read *Gentry* as requiring a rigid mechanical relationship between the claims of a patent and the rest of the specification”⁹¹

Other recent district court decisions likewise approach *Gentry Gallery* with varying degrees of skepticism. For example, in *Purdue Pharma*,⁹² the court found a violation of the written description requirement but emphasized the primacy of the “possession” test and characterized *Gentry Gallery*’s notion of the omitted element as relevant to the overarching question of possession:

While the Court hesitates to refer to the *Gentry* analysis as a “test” under the written description requirement absent further guidance from the Federal Circuit, the Court believes that

87. 175 F.3d 985 (Fed. Cir. 1999) (considering whether the claim term “heading” in a “heading” lock unit for a boat’s trolling motor was supported by the written description in a parent application).

88. *Id.* at 993 (citing *Gentry Gallery*, 134 F.3d at 1479).

89. *Id.* One would doubt whether the *Gentry Gallery*’s written description in fact spoke with “crystal clarity” as Judge Clevenger seems to intimate.

90. 52 U.S.P.Q.2d 1697 (S.D.N.Y. 1999) (denying defendant’s motion for summary judgment for violation of the written description requirement).

91. *Id.* The court proceeded to equate “essential” features with novel features, commenting that “[o]nly when the [disputed feature] is an important part of the invention, *distinguishing it from prior art*, will *Gentry* come into play.” *Id.* (emphasis added).

92. *Purdue Pharma, L.P. v. F.H. Faulding & Co.*, 48 F. Supp.2d 420 (D. Del. 1999) (concluding that the written description was violated where the claims recited a ratio of carbon constituents in a claimed composition to be greater than two, the written description provided examples where the ratio was above and below two, and the “greater than [two]” limitation did not appear in the original claims).

whether the claimed invention omits an element which was essential to the invention as originally described is at least part of determining whether the applicant was in possession of the invention at the time of filing.⁹³

Similarly, in *Lacks Industries, Inc.*,⁹⁴ the court clearly signaled its discomfort in applying *Gentry Gallery* by suggesting that the elements must not only be “essential elements” for purposes of the *Gentry Gallery* test, but they also needed to be “the essence of the invention itself.”⁹⁵

The district court’s decision in *Reiffin v. Microsoft*⁹⁶ was of another stripe altogether. To date, it unquestionably represents the most enthusiastic application of *Gentry Gallery*, and seems likely to yield the most important new pronouncement of the written description requirement as it makes its way to the Federal Circuit.⁹⁷

It is impossible to tell from the face of the opinion whether the *Reiffin* court’s application of the so-called “omitted element” test is sensible. However, the court’s analysis provides little reassurance that the “omitted element test” will be applied in a consistent and predictable fashion. First, the court emphasized that four elements not expressly appearing in the claims at issue⁹⁸ nevertheless initially

93. *Id.* at 431.

94. *Lacks Indus., Inc. v. McKechnie Vehicle Components USA, Inc.*, 55 F. Supp.2d 702 (E.D. Mich. 1999).

95. *Id.* at 725 (refusing to grant summary judgment of invalidity for non-compliance with the written description requirement on the rationale that there were genuinely disputed fact issues concerning whether the use of plastic panels and the use of a specified type of wheel were “essential elements” of the invention). *See also* Thomson Consumer Elec., Inc., v. Innovatron, S.A., 43 F. Supp.2d 26, 32 n.4 (D.D.C. 1999) (“In *Gentry*, the court narrowed a broad claim to the scope of the disclosure based on a series of considerations concerning the patent’s purpose and the inventor’s objective intent, which are not present in this case.”)

96. 48 U.S.P.Q.2d 1274 (N.D.Cal. 1998). The case involves claims issued in 1997 and allegedly entitled to the filing date of a 1982 application. *Id.* at 1276. The claims relate to “multi-threading” technology, which gives computers the ability to switch rapidly between tasks. *Id.* at 1274-75.

97. *See Reiffin v. Microsoft Corp.*, Appeal No. 98-1502 (Fed. Cir 1999) (*argued* Oct. 7, 1999). Interestingly, the district court in *Reiffin* relied in part on the reissue decision of the Supreme Court in *U.S. Industrial Chemical, Inc. Reiffin*, 48 U.S.P.Q.2d at 1277. *See supra* notes 40-44 and accompanying text (questioning the current vitality of *U.S. Industrial Chemical*).

98. The four elements in question were “an editor, a compiler, an interrupt means, and a return means.” 48 U.S.P.Q.2d at 1276.

appeared in the “summary of the invention” section of the application, the patent’s abstract, the background section, and the statement of objects of the invention.⁹⁹ The court’s reliance on the abstract to comment on the patent’s validity is unfortunate. Moreover, the court’s reliance on the “objects of the invention” is suspect, given that it has been common practice for patent lawyers to draft “objects” that correspond to the elements of the originally filed claims. If the court deems any recitation in the “objects” an “essential” element for purposes of the written description requirement, tremendous numbers of claims could be at risk, approaching a *per se* prohibition against broadening claims after filing. Second, the court conceded that *Reiffin*’s specification did not contain language expressly requiring the four omitted elements as part of the claimed invention, but one court did find that because those elements seemed at least “important,” they should be deemed essential.¹⁰⁰ The court’s holding is conceivably consistent with *Gentry Gallery*, but it certainly appears to be inconsistent with the more recent Federal Circuit pronouncement in *Johnson v. Zebco* that an element is only deemed essential when the disclosure is “crystal clear” on the point.¹⁰¹

Thus, quite apart from the question whether *Reiffin* is correctly decided ultimately, the *Reiffin* analysis amply illustrates the potential for mischief the “essential” element test carries. The court shifted without hesitation from an “essential” element analysis to an “important” element analysis. This shift moves perilously close to a test that merely asks whether a given element is described as part of the preferred embodiment and invalidates any claims that are drawn more broadly than the disclosed embodiment. The *Reiffin* case presents the Federal Circuit with an important opportunity to speak against this unbridled interpretation of the essential element test, if not to dispose of it altogether.¹⁰²

99. *Id.* at 1279-80.

100. *Id.* at 1280. “Reiffin’s 1982 patent application does not expressly say that the only possible embodiment of his invention involved the four elements.” *Id.*

101. *See supra* note 87 and accompanying text.

102. It will be interesting to see whether the Federal Circuit chooses an alternative route—discovering a genuine issue of material fact that precludes summary judgment. Compliance with the written description requirement has, after all, been denominated a question of fact. *See*

Clarifying statements in the Federal Circuit's pending *Reiffin* decision could also benefit the *Revised PTO Guidelines*. The *Revised PTO Guidelines* appear to subscribe fully to the essential element test. They expressly adopt *Gentry Gallery's* essential element approach to the possession standard without illuminating the meaning of "essential." Thus, the *Guidelines* direct examiners to:

review the claims and the entire specification, including the specific embodiments, figures, and sequence listings, to understand what applicant identified as the essential distinguishing characteristics of the invention. The analysis of whether the specification complies with the written description requirement requires the examiner to determine the correspondence between what the applicant has described as the *essential identifying characteristic features* of the invention, i.e., what the applicant has demonstrated possession of, and what the applicant has claimed. Such a review is conducted from the standpoint of one skilled in the art at the time the application was filed.¹⁰³

It seems unlikely that burdening the essential element test with additional interchangeable adjectives will meaningfully enhance the test. The *Reiffin* decision, perhaps, will render this exercise unnecessary.

C. Barriers to Coherence

This subpart examines some of the consequences of employing an unrestricted "possession" standard for the written description requirement. One consequence is an unpredictable, and even arbitrary, application of the requirement, especially as a result of

infra note 104 and accompanying text.

103. Revised PTO Guidelines, *supra* note 24, at 71435. See also *id.* at 71434 (stating that for new or amended claims, or claims that seek the benefit of an earlier priority or filing date, "each claim must include all elements which applicant has described as essential").

The PTO acknowledges that in the final analysis, the essential element analysis might merely be duplicative of enablement: "A claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record may also be subject to rejection under 35 U.S.C. Sec. 112, para. 1 as not enabling, or under 35 U.S.C. 112, para. 2." *Id.* at 71438 n.20 (citing, *inter alia*, *Reiffin v. Microsoft*).

overzealous appellate review. Another consequence is messy interfaces with other doctrines, which also creates potential barriers to coherence.

1. Overzealous Appellate Review

The Federal Circuit characterizes the written description requirement as a question of fact.¹⁰⁴ One may argue that, even if the substantive standard for the written description requirement imposes little or no restraint on judicial power, categorizing the written description requirement as factual minimizes the opportunity for overzealous appellate application. Despite the opposing argument that this might only mean untoward trial court applications of the written description requirement are more likely to be preserved on appeal, it is incorrect to conclude from existing case law that the Federal Circuit will exhibit any great restraint in written description cases.

In the first place, it is not clear that the question of fact label is meaningful for the written description requirement. Numerous written description cases involve questions of entitlement to the filing date of a predecessor application under § 120.¹⁰⁵ Because the Federal Circuit denominated entitlement to priority under § 120 as a question of law,¹⁰⁶ it can readily justify plenary review of most written description issues.¹⁰⁷ The apparent deference the Federal Circuit would give to written description analyses on appeal is, therefore, as illusory as the written description requirement itself.

More importantly, there may well be a divergence of views at the Federal Circuit on the level of scrutiny that written description decisions should receive. The opinions in the Federal Circuit’s *Suntiger* case illustrate the point. The claims at issue concerned lenses for sunglasses and specified transmission characteristics over a

104. *Tronzo*, 156 F.3d 1154, 1158 (Fed. Cir. 1998).

105. 35 U.S.C. § 120 (1994).

106. *See, e.g.*, *Racing Strollers, Inc. v. TRI Indus., Inc.*, 878 F.2d 1418, 1419 (Fed. Cir. 1989).

107. *See, e.g.*, *In re Daniels*, 144 F.3d 1452 (Fed. Cir. 1998) (addressing compliance with the written description requirement in the context of a design patent claiming the benefit of an earlier application’s filing date).

relatively narrow numeric range. Because the applicant claimed the benefit of the filing date of a parent application, which disclosed transmission characteristics over a broader range, the claim implicated the written description requirement. The parties submitted conflicting expert affidavits on the question of what the parent application would have disclosed to one of ordinary skill in the art. Citing this conflict, the district court refused to grant summary judgment for invalidity.¹⁰⁸

The Federal Circuit affirmed, but Judge Lourie (the author of both the *Gentry Gallery* and *Eli Lilly* opinions) dissented, and it is this dissent that makes the case significant. While acknowledging the customary practice of deference, Judge Lourie found no need for deference in *Suntiger*,¹⁰⁹ reasoning that the parent application clearly failed to provide an adequate written description for the claims at issue.¹¹⁰

The analysis in the dissenting opinion is surprising in several respects. First, the dissent relies on the proposition that “[v]alidity is a question of law, based on facts,”¹¹¹ notwithstanding Federal Circuit cases characterizing the written description question as a fact question.¹¹² Second, the dissent espouses the view that, as a matter of law, “disclosure of a generic expression encompassing a large number of possible variants is not a description of all of them.”¹¹³ This is clearly an overstatement—whether the proposition is true certainly depends upon whether one of ordinary skill in the art would consider the generic description adequate.¹¹⁴

Finally, the dissent appears entirely comfortable with substituting its own judgment for that of the district court on the question of what

108. *Id.*

109. *Id.* at 1337.

110. *Id.*

111. *Id.*

112. Moreover, the proposition that validity is a question of law is overbroad in any event because courts have clearly defined some validity doctrines as questions of fact. *See, e.g., Atlas Powder Co. v. Ireco, Inc.*, 190 F.3d 1342, 1346 (Fed. Cir. 1999) (recognizing anticipation is a question of fact).

113. 189 F.3d at 1337-38.

114. This in turn would presumably depend upon factors such as the size of the genus and the presence or absence of additional teachings (“blazemarks” in Judge Rich’s vernacular) in the written description.

one of ordinary skill in the art would glean from the description in the parent application.

While it is regrettable that the district court was not able to see through the “experts” asserting that [the claim limitations at issue] were described in [the relevant drawing from the parent application], we should not perpetuate the fiction that there is a genuine dispute when we can see that the figure does not disclose the key limitations. This is not an issue concerning which testimony is necessary to explain complex language, or one where the demeanor of witnesses might matter. We can read the patent.¹¹⁵

The last statement—that the Federal Circuit can simply read the patent and resolve a written description issue—illustrates why the written description requirement is a threat to the coherence of disclosure doctrines—it easily becomes the instrument of judicial caprice.¹¹⁶

In any event, the dissent’s position is not well supported in the law. The Federal Circuit’s own cases establish that the relevant inquiry in a written description case is whether one of ordinary skill in the art would agree that the description reasonably conveys that the inventor had possession of the invention. The ordinary artisan’s implicit understanding of the document is critical to that determination. Federal Circuit judges should refrain from making *ab initio* pronouncements on the matter, particularly in the face of conflicting evidence. The extent to which Federal Circuit judges have been willing to inject themselves into the fray in this manner is further indication of the broader problem of the potential for arbitrary decision making under the cloak of the written description requirement.¹¹⁷

115. 189 F.3d at 1338.

116. Perhaps the caprice will be tempered by the wisdom and experience that Federal Circuit judges can bring to bear. On the other hand, District Court judges will presumably believe that they, too, can “read the patent” and deploy the written description requirement according to their own sensibilities.

117. Similarly, the written description requirement as construed in *Eli Lilly* may give courts too much discretion to reshape claims in biotechnology cases. For a detailed policy argument along these general lines, see Mueller, *supra* note 20, at 633.

The Federal Circuit's decision in *Union Oil*¹¹⁸ provides perhaps the best illustration of the sharp contrast in judicial views about how the written description requirement should be applied and about how it should be reviewed on appeal. Judge Rader upheld a JMOL denial on a jury verdict in which the jury had found no violation of the written description requirement. The claims at issue were directed to gasoline compositions that were specified not in terms of chemical structure, but in terms of various functional characteristics, expressed in numeric ranges.¹¹⁹ In analyzing the patent for compliance with the written description requirement, Judge Rader pointed to language in the written description that closely tracked the ranges of functional characteristics called out in the claims, statements of general guidance in the written description, and testimony that one of ordinary skill in the art would have been guided by the written description to formulate specific compositions satisfying the claims.¹²⁰ Judge Rader also appeared to signal his disagreement with *Eli Lilly*, asserting that the CCPA had "clarified that disclosure in an originally filed claim satisfies the written description requirement."¹²¹

Judge Lourie dissented, accusing the majority of analyzing the written description issue purely through enablement reasoning.¹²² Judge Lourie found adequate description of the claim limitations in the specification, but not of the claimed compositions "as such," and viewed this as grounds for reversal.¹²³

The *Union Oil* dissent reinforces the point that the written description requirement as currently formulated is unduly susceptible

118. *Union Oil Co. v. Atlantic Richfield Co.*, 208 F.3d 989 (Fed. Cir. 2000).

119. Slip op. at 3 (setting forth claim 117 of the patent-in-suit).

120. *Id.* at 14-19. Judge Rader's analysis also drew from Federal Circuit and CCPA written description precedent. Judge Rader attempted to distinguish *Ruschig* on the basis that it had involved claims copied in from another application to provoke an interference, *id.* at 20-21, and attempted to analogize to cases in which numeric ranges set forth in the claims did not correspond exactly to the ranges disclosed in the specification. *Id.* at 22, citing *Ralston Purina Co. v. Far-Mar-Co.*, 772 F.2d 1570 (Fed. Cir. 1985).

121. Slip op. at 16, n.4, citing *In re Gardner*, 480 F.2d 879, 880 (CCPA 1973).

122. Slip op. at 25 (Lourie, J., dissenting). This objection appears to carry some weight, and neatly illustrates the difficulty of uncoupling written description from enablement. The objection might be more compelling, however, if the Federal Circuit could explain (without resorting to the empty rhetoric of the written description requirement) why a disclosure that complies with the enablement requirement should be deemed deficient.

123. See, e.g., *id.* at 26 (Lourie, J., dissenting).

to overzealous appellate review. Indeed, the *Union Oil* majority expressly concludes as much:

In its arguments, the dissent discounts the skill in this art, which, the jury found, knows the composition of gasolines from the specification’s description of characteristics. Further, the dissent discounts the jury’s role in finding, as a matter of fact, that the inventor satisfied the written description requirement, preferring instead its own “findings” about the knowledge of skilled artisans and about the sufficiency of disclosures.¹²⁴

The *Union Oil* dissent also illustrates the disturbing tendency to use the written description to limit the scope of the claims to those embodiments which are expressly disclosed in the specification. Even though the dissent acknowledges the general principle that “a patent need not describe the claimed subject matter in precisely the same terms as used in the claims,”¹²⁵ it is not clear how the patentee could have satisfied the dissent’s mandate for a description of the claimed compositions “as such” except by express disclosure of any particular composition within the claim.

2. Messy Interfaces

While it is particularly difficult to determine where enablement should properly end and the written description requirement properly begin, this problem is merely symptomatic of a broader issue—interfacing the written description requirement with a number of other patent doctrines. These multiple interfaces create uncertainties with attendant costs. More fundamentally, however, they may provide opportunities in which the written description requirement is used as an artifice to circumvent traditional limitations in other doctrines. If the written description requirement continues to expand, it could become a source of considerable chicanery, with destabilizing influences extending well beyond the adequacy of disclosure issue.

124. Slip op. at 20 n.5.

125. Slip op. at 27 (Lourie, J., dissenting).

The most serious interface problem, as noted throughout this Article, is the interface with enablement.¹²⁶ However, claim construction illustrates another key example.¹²⁷ Some cases indicate the Federal Circuit is willing to rely upon probable non-compliance with the written description requirement as a justification for rejecting one claim construction in favor of another in an infringement context.¹²⁸ In form, this argument is easily supportable under the maxim that claims be construed so as to preserve their validity.¹²⁹ This argument also rests on the entirely non-controversial proposition that claims be construed in view of the written description portion of the specification. The problem is that the line

126. Even if the Federal Circuit is unwilling to rid the patent system of the written description requirement, it should revisit the enablement/written description interface and attempt to improve upon the conclusory rhetoric that typifies existing case law. *See, e.g., Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991) (concluding that “the purpose of the ‘written description’ requirement is broader than to merely explain how to ‘make and use;’ the applicant must also convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention.”). Much of the analysis in this Article suggests that this task may be impossible.

127. To be sure, there are also illustrations of interfaces that are not problematic, even if they are subtle. For example, one cannot fault the line of cases exploring the relationship between claim-anticipating disclosures and claim-supporting disclosures. A disclosure of a species generally anticipates a later claim to a genus encompassing that species, but the disclosure of the species would not necessarily provide a “written description” of the genus. *See, e.g., Chester v. Miller*, 906 F.2d 1574, 1577 (Fed. Cir. 1990) (explaining the relationship). *See also Rengo Co. Ltd. v. Molins Mach. Co.*, 657 F.2d 535, 551 (3d Cir. 1981) (describing the written description requirement and the § 112 definiteness requirement as “complementary” standards which “approach a similar problem from different directions”); *see also Vas-Cath*, 935 F.2d at 1561 (citing *Rengo* with approval).

128. For example, the court has recently stated that “[a] patent claim should be construed to encompass at least one disclosed embodiment in the written description portion of the patent specification. This maxim flows from the statutory [written description] requirement.” *Johns Hopkins Univ. v. Cellpro, Inc.*, 152 F.3d 1342, 1355 (Fed. Cir. 1998). *See also North American Vaccine, Inc. v. American Cyanamid Co.*, 7 F.3d 1571, 1577 (Fed. Cir. 1993):

It is the responsibility of patent applicants to disclose their inventions adequately. 35 U.S.C. § 112. There is no such disclosure of the concept of avoiding crosslinking along the backbone in this patent. Thus, an invention of that breadth does not meet the *description requirement* A patent applicant cannot disclose and claim an invention narrowly and then, in the course of an infringement suit, argue effectively that the claims should be construed to cover that which is neither described nor enabled in the patent.

Id. (citations omitted) (emphasis in original).

129. *See, e.g., Carmen Indus., Inc. v. Wahl*, 724 F.2d 932, 937 n.5 (Fed. Cir. 1983) (“Claims should be so construed, if possible, as to sustain their validity.”).

between construing the claim “in view of” the specification and improperly importing limitations from the specification into the claim is already a fine one. Thus, injecting the written description requirement into the analytical mix may obliterate the line altogether in any given case. Because the written description requirement is so amorphous, it will be very easy for alleged infringers to argue persuasively that the specification identifies certain elements as “essential” and that a claim construction omitting such elements must be rejected. The written description requirement could then operate as the ultimate hedge against broad claim construction, shrinking the scope of claims to something approximating that of the expressly disclosed embodiments of the invention.

Another illustration—admittedly one of trifling practical consequences—concerns a line of cases interpreting the “regards” clause of § 112, paragraph two.¹³⁰ In one decision, the district court granted summary judgment of invalidity under the “regards” clause where the inventor’s deposition testimony appeared to reveal a different subjective notion of the invention than the contents of the claims at issue.¹³¹

On the surface this inquiry may seem different from matching the disclosure to the claim to determine whether the disclosure places the ordinary artisan in “possession” of the claimed invention. However, as a practical matter the inquiries will overlap substantially, especially when possession is assessed via the *Gentry Gallery* essential element test.¹³² To the extent the essential element test

130. 35 U.S.C. § 112, ¶ 2 (1994) (“The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter *which the applicant regards as his invention.*”) (emphasis added). Arguments invoking the “regards” clause of § 112, paragraph two, are rare.

131. *Inpro, Inc. v. A.W. Chesterton Co.*, 657 F. Supp. 935, 942-45 (N.D. Ill. 1987). Some support for this analysis can be derived from C.C.P.A. decisions. *See, e.g., In re Prater*, 415 F.2d 1393, 1404-05 (C.C.P.A. 1969) (“Inasmuch as claim 9, thus interpreted, reads on subject matter for which appellants do not seek coverage, and therefore tacitly admit to be beyond that which ‘applicant regards as his invention,’ we feel that the claim fails to comply with 35 U.S.C. § 112 which requires that ‘the specification shall conclude with one or more claims particularly pointing out and distinctly *claiming the subject matter which the applicant regards as his invention.*’”). *Id.* at 1404 (emphasis in original).

132. For example, the same inventor testimony that allegedly identifies “essential elements” of the invention, which fail to appear in a claim, might simply be characterized as the inventor’s subjective notion of what the invention is and be considered relevant to the “regards”

draws on evidence outside the specification, there is likely to be overlap with § 112, paragraph two.

III.

The “written description” jurisprudence demonstrates that modern U.S. courts periodically perceive a need to reach beyond the enablement criterion to redress an alleged disclosure deficiency. This practice persists in spite of the failure to articulate meaningful standards beyond the enablement standard. This Part analyzes European and British law for evidence of the same phenomenon and concludes that, while the enablement criterion has emerged as the worldwide minimum standard for adequacy of disclosure in modern patent systems,¹³³ both European and British law also appear burdened with doctrines that are analogous to the U.S. written description requirement.¹³⁴

A. “Sufficiency” and “Support” in European Patent Law

Although the rhetorical labels certainly differ, a similar pattern of disclosure doctrines, evident in the bifurcation of enablement and written description in U.S. law, is also present in European patent law. Not surprisingly, one also finds the attending expressions of confusion. Disclosure requirements under the European Patent

inquiry.

133. See *supra* note 5 and accompanying text (discussing TRIPs article 29(1) and article 3(1) of the proposed Patent Law Treaty). TRIPs article 29(1) expressly gives members discretion to impose a best mode requirement and does not preclude members from imposing additional adequacy of disclosure requirements such as a written description requirement. *Id.* See generally J.H. Reichman, *Universal Minimum Standards of Intellectual Property Protection Under the TRIPs Component of the WTO Agreement*, 29 INT’L LAW. 345 (1995) (providing a summary of the patent provisions in the TRIPs agreement and the underlying normative structure). Article 3(1) of the proposed Patent Law Treaty contained slightly different language, imposing an enablement requirement but also specifying that the application “contain a description.” WEGNER, *supra* note 5, at 151 (citing article 3(2)(a)). However, the negotiating history indicates that this language was not intended as an effort to incorporate the U.S. “written description” requirement into the treaty. *Id.* at 157.

134. Necessarily, this comparative analysis is selective, focusing on the interface between enablement (or “sufficiency”) and written description analogs (“support,” “fair basis”). It does not attempt, for example, to give a detailed account of the nature of enablement itself and its development in the jurisdictions of interest.

Convention (“EPC”) rest upon a core requirement of enablement, embodied in EPC article 83.¹³⁵ However, the EPC also includes, in article 84, the requirement that the claims be “clear and concise and be supported by the description.”¹³⁶

This distinction matters. Compliance with article 83’s enablement requirement is an issue both for original examination and for post-grant opposition.¹³⁷ In contrast, compliance with article 84 is strictly a matter for original examination,¹³⁸ a matter that excited considerable commentary in Europe, especially in the context of allegedly overbroad biotechnology claims.¹³⁹ As a conceptual matter and as a

135. Article 83 does not use the term “enabling” but clearly sets forth an enablement standard: “The European patent application must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.” EPC art. 83. *See, e.g.*, GERALD PATERSON, *THE EUROPEAN PATENT SYSTEM* 533 (1992) (providing the full text of the European Patent Convention).

136. EPC Art. 84; *See* PATERSON, *supra* note 134, at 133 (§ 3-09) (confirming that the disclosure must perform both an enablement and a support function as separately conceptualized in articles 83 and 84).

137. *See* EPC Art. 100(b), *in* PATERSON, *supra* note 134, at 540 (“Oppositions may only be filed on the grounds that: . . . (b) the European patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.”).

138. *Id.* (using the language of the article 83 requirement but not the article 84 requirement in identifying the possible grounds for opposition). For relevant cases confirming this distinction, *see, e.g.*, T 23/86, Naimer/Computer-controlled switch, [1987] E.P.O.R. 383 (1986); T 48/85, NRDC/Eimeria necatrix, [1987] E.P.O.R. 138 (1986); *see generally* CHARTERED INSTITUTE OF PATENT AGENTS, C.I.P.A. GUIDE TO THE PATENTS ACT § 14.29 (1996) [hereinafter C.I.P.A. GUIDE]. There are limitations to this rule. For example, compliance with article 84 can arise in a post-grant opposition proceeding in which the patentee proposes to amend the claims. *See, e.g.*, T 301/87, Biogen/Alpha-interferon, [1990] E.P.O.R. 190 (1989). Another example concerns the “clarity” prong of Article 84, which may be challenged post-grant. *See* T 684/89 Cyberexact/Printer Ribbon Errors, [1993] E.P.O.R. 173 (1992) (“While it is correct that a lack of clarity under Article 84 does not in itself constitute a Ground of Opposition, especially if the disputed claim has not been amended, the fact remains that objections to clarity can be made, if necessary, under Article 100(b) in assessing the fulfillment of the conditions of Article 100.”). Moreover, the House of Lord’s *Biogen* decision offers an even broader rationalization for the use of article 84 “support” arguments post-grant. *See infra* Part III.B.2.

One scholar reports that the apparent rationale for excluding article 84 challenges from most post-grant settings was the assumption that courts would correctly decide claim breadth in the course of patent examination. Michael Kern, *Patentability of Biotechnological Inventions in the United Kingdom: The House of Lords Charts the Course*, 29 INT’L REV. INDUS. PROP. & COPYRIGHT 247, 268 (1998).

139. *See, e.g.*, Tim Roberts, *Broad Claims for Biotechnological Inventions*, 16 EUR. INTELL. PROP. REV. 371, 373 (1994) (urging that European law be changed to allow Article 84 lack of support objections to be raised in opposition proceedings and in revocation proceedings in national courts).

matter of practical consequences, it is necessary to attempt to distinguish between article 83 “sufficiency” and article 84 “support,” just as it is necessary under current U.S. patent law to distinguish between enablement and written description. It is perhaps telling, then, that the attempt to articulate a standard for article 84 “support” that is truly distinct from article 83 “sufficiency” has not revealed any profound insight. Instead, the project has generated rhetoric and reasoning quite comparable to U.S. written description jurisprudence, both in its reliance on artificial distinctions and in its resort to a dubious “essential elements” formulation.

1. Artificial Distinctions Between “Sufficiency” and “Support”

EPO jurisprudence on article 84 does embrace the notion, familiar to U.S. adequacy of disclosure law, that requiring a strict correlation between the scope of the express disclosure and the scope of the claim is counterproductive. For example, in T 133/85, the Board of Appeal acknowledged that a principal purpose of the support requirement in article 84 is to modulate the “width” of the claims, yet the Board made clear it considered that the term “support” allows for some “generalization” of the claim vis a vis the description:

[T]he requirement in Article 84 EPC that the claims shall be supported by the description is of importance in ensuring that the monopoly given by a granted patent generally corresponds to the invention which has been described in the application, and that the claims are not drafted so broadly that they dominate activities which are not dependent upon the invention which has been described in the application. On the other hand, Article 84 EPC clearly envisages (by use of the word ‘supported’) that the ‘matter for which protection is sought’ can be defined in a generalised form, compared to the specific description of the invention.¹⁴⁰

This issue raises the difficult question of how much claim “generalization” the patentee may undertake before crossing over into

140. CHARTERED INSTITUTE OF PATENT AGENTS, 2 EUROPEAN PATENTS HANDBOOK 56/199, 103:T 133/85-6 (2d ed. 1995).

the prohibited practice of claiming “covetously.”¹⁴¹ The European Patent Office (EPO) Guidelines for Examination attempt to flesh out this concept, but make little headway. The Guidelines take refuge in the proposition that the extent of allowable disconnect or generalization between the claims and the disclosure is a matter for case-by-case resolution.¹⁴² Beyond this broad pronouncement, the Guidelines do little more than restate the article 83 enablement standard. The text of Guideline 6.3 is indicative:

As a general rule, a claim should be regarded as supported by the description unless there are exceptionally well-founded reasons for believing that the skilled man would be unable, on the basis of the information given in the application as filed, to extend the particular teaching of the description to the whole of the field claimed by using routine methods of experimentation or analysis.¹⁴³

In proceeding to offer two specific examples, the Guidelines quite correctly acknowledge that:

[A]lthough an objection of lack of support is an objection under Art. 84, it can often . . . also be considered as an objection of insufficient disclosure of the invention under Art. 83, the objection being that the disclosure is insufficient to enable the skilled person to carry out the “invention” over the whole of the broad field claimed (although sufficient in respect of a narrow “invention”).¹⁴⁴

EPO case law under the article 84 support requirement reflects this same overlap with article 83. For example, in T 409/91,¹⁴⁵ the

141. In T 409/91, the Board insisted that article 84’s “support” requirement was designed to prevent “overtly ‘covetous’ claiming”—to prevent patentees from attempting to “monopolise a technical area extending well beyond” the patentee’s technical contribution. T 409/91, Exxon/Fuel Oils, [1994] E.P.O.R. 149 (1993), *reprinted in* 6 EUROPEAN PATENTS HANDBOOK, *supra* note 139, at 103:T 409/91-1, -6.

142. EPO Guidelines for Examination, ch. 3, 6.2 (1995), *full text reprinted in* 2 EUROPEAN PATENTS HANDBOOK, *supra* note 139, at 56/199.

143. *Id.* at ch. 3, 6.3.

144. *Id.* at 6.4.

145. T 409/91, *supra* note 140, *reprinted at* 103:T 409/91-1. For commentary applauding the Board’s approach in T 409/91, see Matthias Brandi-Dohrn, *The Unduly Broad Claim*, 25

claim at issue was directed to a fuel oil containing wax particles of a specified size. The disclosure described fuel oil compositions including not only wax particles within the claimed size range, but also specified additives as to which the claims were silent. The Board found numerous problems with this disconnect between the scope of the disclosure and the scope of the claims. First, according to the Board, the article 84 support requirement reflected the general principle that “the definitions in the claims should essentially correspond to the scope of the invention as disclosed in the description.”¹⁴⁶ However, as the Board articulated the rationale of article 84, it lapsed into enablement language: “[T]he claims should not extend to subject matter which, after reading the description, would still not be at the disposal of the person skilled in the art.”¹⁴⁷

Indeed, if the evidence had in fact shown, as the Board suggested it did, that a skilled artisan could not have prepared the claimed composition without using the additive one might suppose there would be no need to resort to article 84, because there would surely be an enablement problem. The Board, in fact, proceeded to find an article 83 enablement violation.¹⁴⁸ In so doing, the Board again confronted the problem of relating article 83 to the article 84 support requirement:

Although the requirements of [a]rticle 83 and [a]rticle 84 are directed to different parts of the patent application, since [a]rticle 83 relates to the disclosure of the invention, whilst [a]rticle 84 deals with the definition of the invention by the claims, the underlying purpose of the requirement of support by the description . . . and of the requirement of sufficient disclosure is the same, namely to ensure that the patent monopoly should be justified by the actual technical contribution to the art. Thus, a claim may well be supported by

INT’L REV. INDUS. PROP. & COPYRIGHT 648 (1994).

146. *Id.* at 103:T 409/91-5.

147. *Id.* The Board proceeded to give another example of reliance on the “essential feature” rhetoric that is strongly comparable to the *Gentry Gallery* formulation: “[A] technical feature which is described and highlighted in the description as being an essential feature of the invention, must also be a part of the independent claim or claims defining this invention.” *Id.* (citing T 133/85).

148. *Id.* at 103:T 409/91-6.

the description in the sense that it corresponds to it, but still encompass subject matter which is not sufficiently disclosed within the meaning of [a]rticle 83 EPC as it cannot be performed without undue burden, or vice versa.¹⁴⁹

This broad pronouncement carries the tone of rationality, but sheds little light on any distinction between the two requirements often, the distinction seems more hypothetical than real, as T 409/91 amply illustrates:

In the present case . . . the reasons why the invention defined in the claims does not meet the requirement of [a]rticle 83 EPC are in effect the same as those that lead also to their infringing [a]rticle 84 EPC, namely that the invention extends to technical subject matter not made available to the person skilled in the art by the application as filed, since it was not contested by the applicant that no information was given to perform the claimed invention successfully without using the structurally defined class of additives¹⁵⁰

In the United States, the deployment of an illusory written description requirement has had adverse consequences for coherence.¹⁵¹ Interestingly, some of the same consequences are seen in EPO case law. For example, the EPO may be willing to allow article 84 support considerations to influence claim construction.¹⁵² Similarly, and perhaps more significantly, the EPO has held that a lack of clarity objection could be reformulated as an insufficiency objection and thus be raised post-grant, even though an article 84 objection would not be available post-grant.¹⁵³

149. *Id.* at 103:T 409/91-6.

150. *Id.* at 103:T 409/91-6-7.

151. *See supra* Part II.C.

152. *See* T 406/86, Wacker/Trichloroethylene, [1989] E.P.O.R. 338 (1988) (referring to the possibility of using limited claim construction where doing so would obviate an apparent discontinuity between the scope of the claims and the scope of the disclosure). This would be an important step considering that it could effectively make article 84 support arguments available in post-grant proceedings.

153. T 684/89, Cyberexact/Printer ribbon errors, [1993] E.P.O.R. 173 (1992).

2. The EPO's "Essential Elements" Formulation

The article 84 jurisprudence has also featured the emergence of "essential feature" rhetoric. For example, in T 32/82, the European Patent Office Board of Appeal construed article 84 as requiring the patentee to "define clearly the object of the invention, that is to say, indicate all the essential features thereof."¹⁵⁴ The Board proceeded to define "essential features" as encompassing "all features which are necessary to obtain the desired effect, or, differently expressed, which are necessary to solve the technical problem with which the application is concerned."¹⁵⁵ The Board also employed the "essential features" rhetoric in T 133/85.¹⁵⁶ The test for article 84 support articulated in T 133/85 seems indistinguishable from the *Gentry Gallery* formulation of the written description requirement: "A claim which does not include a feature which is described in the application . . . as an essential feature of the invention, and which is therefore inconsistent with the description, is not supported by the description for purposes of Article 84 EPC."¹⁵⁷

In T 1055/92,¹⁵⁸ the EPO attempted to distinguish between essential features (whose omission from a claim would give rise to a violation of the support requirement) and "technical features" (whose omission from a claim would be of no consequence). Attempting to explain this most tenuous of distinctions, the Board reasoned that:

[I]t is not always necessary for a claim to identify technical features or steps in detail The Board of Appeal considers it sufficient if the application as a whole (i.e. the claims

154. The Board made clear that this requirement was in addition to the requirement to present comprehensible claims. *Id.* However, it was not clear whether the Board was deriving the "essential features" requirement from the "support" requirement or the "clear and concise" requirement of article 84. T 32/82, ICI/Control circuit [1979-85] E.P.O.R. B426 (1984), *reprinted in* 5 EUROPEAN PATENTS HANDBOOK, *supra* note 139, at 103:T 32/82-2.

155. *Id.*

156. T 133/85, XEROX/Amendments, [1989] E.P.O.R. 116 (1988), *reprinted in* 5 EUROPEAN PATENTS HANDBOOK, *supra* note 139, at 103:T 133/85-1.

157. *Id.* See also ROMUALD SINGER & MARGARETE SINGER, THE EUROPEAN PATENT CONVENTION: A COMMENTARY 370 (Ralph Lunzer trans., 1995) (discussing the decision and quoting excerpts).

158. T 1055/92, Ampex Corporation/Clarity, [1995] E.P.O.R. 469 (1994), *reprinted in* 6 EUROPEAN PATENTS HANDBOOK, *supra* note 139, at 103:T 1055/92-1.

together with the description and drawings) describes the necessary characteristics of an invention . . . in a degree of detail such that a person skilled in the art can perform the invention. This requirement, however, relates to [a]rticle 83 EPC and is not relevant to [a]rticle 84 EPC However, the Board of Appeal also agrees with the interpretation of the meaning of the [a]rticle 84 support requirement] in that all the features described in the description as being necessary to carry out the invention (essential features) must be present in a corresponding claim Thus, features which are necessary to solve the technical problem concerned must be present in the claim.¹⁵⁹

Cases such as these may render the *Gentry Gallery* approach to the written description requirement more palatable—if the only concern about *Gentry Gallery* is that it is an anomaly in the broad picture of disclosure requirements in major patent systems. However, what is perhaps more instructive about the European law here is that it shares another characteristic with recent U.S. law: the inability to meaningfully separate the written description requirement (or, analogously, the support requirement) from the enablement requirement (or, analogously, the “sufficiency” requirement).

This problem arose again in T 694/92,¹⁶⁰ which is a recent example of the Board’s reliance on the “essential features” formulation.¹⁶¹ In attempting to refine the notion of “essential” features, the Board clearly lapsed into enablement language:

The essential technical features may also be expressed in general functional terms, if, from an objective point of view, such features cannot otherwise be defined more precisely without restricting the scope of the claim, and if these features provide instructions which are sufficiently clear for the skilled person to reduce them to practice without undue burden, i.e.

159. *Id.* at 103:T 1055/92-7.

160. T 694/92, *Mycogen/Modifying Plant Cells*, [1998] E.P.O.R. 114 (1996).

161. *Id.* at 119 (stating that “Article 84 means not only that a claim must be non-ambiguous and comprehensible, but also that all the essential features of the claimed invention have to be indicated in the claim, these being the features which are necessary in order to obtain the desired effect.”).

with no more than a reasonable amount of experimentation, and without applying inventive skill.¹⁶²

The Board openly acknowledged that “questions of clarity or support may affect the decisions on issues under Article 100 EPC such as . . . sufficiency of disclosure (Article 83 EPC),”¹⁶³ but found this utterly untroubling because both the article 83 sufficiency requirement and the article 84 support requirement “reflect the same general principle, namely that the scope of a granted patent should correspond to its technical contribution to the state of the art.” The Board finally enunciated a broad rule, that a claim might be “formally” supported but not supported for purposes of article 84. The key to this extremely fine distinction lay, not surprisingly, in parsing the rhetoric of enablement:

[I]t follows that, despite being supported by the description from a purely formal point of view, claims may not be considered allowable if they encompass subject-matter which in the light of the disclosure provided by the description can be performed only with undue burden or with application of inventive skill.¹⁶⁴

162. *Id.*

163. *Id.* (citing as illustrative T 435/91, Unilever/Hexagonal Liquid Crystal Gel [1995] E.P.O.R. 314 (1994)). Indeed, the Board suggested that the support requirement also affected novelty (Article 54 EPC) and inventive step (Article 56 EPC) determinations. *Id.* The Board proceeded to observe that the inventive step analysis in the case before it demonstrated how closely interrelated and how critical the issues of support of the claims, sufficiency of disclosure and inventive step are in cases—such as the present one—where it is particularly difficult to find a proper balance between the breadth of the claims and the actual contribution to the state of the art by the disclosure of the patent in suit. T 694/92, [1998] E.P.O.R. 114 (1996).

164. *Id.* The Board proceeded to recite factors it would rely upon to determine whether the level of detail in the disclosure correlated properly with the scope of the claim. The factors include, for example, “the character of the technical field” and the state of the “common general knowledge” as of the filing date. *Id.* These, of course, correlate to the factors used to evaluate “undue experimentation” under U.S. enablement law. *Id.* See, e.g., *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988):

Factors to be considered in determining whether a disclosure would require undue experimentation . . . include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

Id.

B. The “Fair Basis” Requirement in British Jurisprudence

British patent law provides an interesting illustration of transition and fluidity in the application of adequacy of disclosure requirements. The “fair basis” requirement is of particular interest as a rough analog to the EPC article 84 “support” requirement and to the U.S. “written description” requirement. The rise, fall, and arguable recent resuscitation of the “fair basis” requirement in British patent law provides yet another illustration of the phenomenon whereby courts turn to ancillary disclosure doctrines to buttress the enablement requirement.¹⁶⁵

1. “Fair Basis” Before the 1977 Act

Even before British patent law required formal claims, patentees began to include language in their applications directed at identifying invention scope. Thus, courts became sensitive to the potential for “disconformity” between the disclosure and these proto-claims.¹⁶⁶ When the British statute began to mandate claims,¹⁶⁷ the disconformity defense persisted.¹⁶⁸ Similarly, disconformity had a role in assuring congruence between the disclosure in a provisional specification and the complete specification.¹⁶⁹

165. While this subpart focuses principally on U.K. precedent, a worthwhile extension of this study would consider the operation of the “fair basis” requirement under New Zealand and Australian patent law. In both jurisdictions, “fair basis” remains a statutory requirement for adequate disclosure. *See, e.g.*, New Zealand Patents Law § 10(4); ANDREW BROWN & ANTHONY GRANT, *THE LAW OF INTELLECTUAL PROPERTY IN NEW ZEALAND* 6.16 n.2 (1989) (collecting New Zealand cases dealing with the fair basis requirement). Brown and Grant indicate that the New Zealand fair basis law takes as authoritative U.K. precedent under the 1949 Act. *Id.* Concerning Australia, *see, e.g.*, Patents Act 1990 § 40(3) (Austl.) (successor to Patents Act 1952 § 40(2)). *See also* Geoff Pryor, *Fair Basis: A Review of the Recent Cases*, 29 *INTELL. PROP. FORUM* 8 (1997) (criticizing recent Australian cases that apply the fair basis requirement).

166. *See, e.g.*, *CCOM Pty. Ltd. v. Jeijing Pty. Ltd.* (1994) 122 A.L.R. 417, 433-34 (Austl.) (examining the origins in British law of the fair basis requirement). Disconformity was one of the grounds that supported a writ of *scire facias* for revocation of a patent.

167. Claims became mandatory in the British patent system under the Patents, Designs, and Trade Marks Act 1883 (UK).

168. Section 26(3) of the 1883 Act specified that any ground that would have supported a writ of *scire facias* could still be alleged as a defense to infringement. *CCOM*, 122 A.L.R. at 434.

169. The provisional specification concept appeared in section 6 of the Patent Law

Unfortunately, the notion of disconformity was never articulated with any great precision. Instead, in *Mullard Radio*, the leading pre-1949 enunciation, the court gave the test in terms that did little beyond restating the question: “[A] claim may be for an article which is new, which is useful and which has subject-matter, yet it may be too wide a claim because it extends beyond the subject-matter of the invention.”¹⁷⁰ The court invoked a core “consideration” rationale:

The consideration which the patentee gives to the public disclosing his inventive idea entitles him in return to protection for an article which embodies his inventive idea but not for an article which, while capable of being used to carry his inventive idea into effect, is described in terms which cover things quite unrelated to his inventive idea, and which do not embody it at all.¹⁷¹

The 1949 Act turned away from the generic disconformity concept, omitting the provision allowing patent revocation “on any ground on which a patent might have been repealed by scire facias,” and instead included a revocation provision that specified a multiplicity of possible grounds of revocation.¹⁷² Regarding adequacy of disclosure, section 32 contained two subsections that bear a fairly close resemblance to current U.S. law under 35 U.S.C. § 112, first paragraph. Section 32(1)(h) included enablement and best mode requirements:

[A] patent may . . . be revoked by the court on any of the following grounds . . . : that the complete specification does not sufficiently and fairly describe the invention and the method by which it is to be performed, or does not disclose the best method of performing it which was known to the applicant

Amendment Act 1852 (UK). By 1883, the British Patents Act included an express provision requiring the complete specification and the provisional specification to be “substantially the same.” § 9(1), 1883 Act; *see also* § 6(3), Patents and Designs Act 1907 (UK). *See generally* *CCOM*, 122 A.L.R. at 434.

170. *Mullard Radio Valve Co., Ltd. v. Philco Radio & Television Corp.*, 53 R.P.C. 323, 347 (1936).

171. *Id.*

172. Patents Act 1949 (U.K.) § 32, *text reprinted in* C.I.P.A. GUIDE TO THE PATENTS ACT 1166-67 (4th ed. 1995) [hereinafter C.I.P.A. GUIDE].

for the patent and for which he was entitled to claim protection.¹⁷³

Separately, section 32(1)(i) encompassed claim ambiguity, but also injected a “fair basis” requirement, whereby “a patent may . . . be revoked by the court [if] any claim of the complete specification is not fairly based on the matter disclosed in the specification.”¹⁷⁴ While some authorities have cautioned against reliance on pre-1949 “disconformity” precedent to explain the statutory fair basis requirement,¹⁷⁵ the precedent undoubtedly formed an important part of the backdrop for understanding the fair basis requirement. As the court put it in *Olin Matheison*:

[The fair basis provision] was introduced into the 1949 Act at the same time as the removal of the provision, contained in the previous Act, for revocation “on any ground on which a patent might have been repealed by scire facias In other words, section 32(1) covers the objection discussed at length in the case of . . . [*Mullard v. Philco*] that a claim which is a “covetous” claim, or one in which the claim does not “equiparate” with the consideration given by the disclosure, is a bad claim. This requirement [] has always been fundamental in our patent law, and section 32(1) certainly includes it, but it is not, of course, limited to it.”¹⁷⁶

173. *Id.* § 32(1)(h).

174. *Id.* § 32(1)(i).

175. The Federal Court of Australia has observed that:

in *Mullard* the House of Lords had been concerned to find a rationale for disconformity between the body and claims in a complete specification, in the absence of express statutory provision. The rationale was found in the concept of the disclosure as the consideration for the monopoly delimited by the claim. But, in applying *Mullard* to . . . express statutory provisions, some caution is needed lest the history swamp the new text.

CCOM, 122 A.L.R. at 435; see also C.I.P.A. Guide, *supra* note 137, at 1180.

176. *Olin Mathieson Chemical Corp. v. Biorex Laboratories Ltd.*, [1970] R.P.C. 157, 181 (1969).

Although litigants raised the fair basis objection in a number of cases decided under the 1949 Act, the jurisprudence remains remarkably thin. Efforts to articulate tests for fair basis add only the most trivial gloss to *Mullard Radio*. For example, in *Therm-a-Store*, the court merely explained the fair basis analysis as residing in the principle that “[t]he claims in a patent must not go beyond the disclosure in the specification.”¹⁷⁷ In an early case, *In re Mond Nickel Co.’s Application*, the court proposed a three-part inquiry having similarly conclusory overtones.¹⁷⁸

These feeble efforts to craft a doctrine truly independent of enablement are remarkably reminiscent of modern U.S. written description law. In fact, commentators have noted the substantial redundancy of fair basis and enablement. Blanco White, for example, expressed doubt as to whether the fair basis objection had independent significance given that “[t]he objection includes, it would seem, little else that could not be more conveniently and properly brought under some other head of objection.”¹⁷⁹

U.S. written description law and British fair basis law contain other similarities. For example, courts also developed an “essential

177. *Therm-a-Store Ltd. v. Weatherseal Windows Ltd.*, [1984] F.S.R. 323, 339 (1984).

178. *In re Mond Nickel’s Co.’s Application for a Patent*, [1956] R.P.C. 189, 194 (1955). The court specifically designed the inquiry to determine whether a claim in a complete specification was fairly based on the disclosure given in a provisional specification. According to the court, one should analyze fair basis by inquiring:

- (1) whether the alleged invention as claimed can be said to have been broadly described in the provisional specification;
- (2) Is there anything in the provisional specification which is inconsistent with the alleged invention as claimed?
- (3) Does the claim include as a characteristic of the invention a feature as to which the provisional specification is wholly silent?

Id. at 189. Applying its threefold inquiry, the court concluded that the claim was fairly based on the provisional specification. *Id.* at 195. The Federal Court of Australia recently criticized the *Mond Nickel* questions for encouraging an “over meticulous verbal analysis” of the fair basis issue by tying the issue to a notion of strict consistency between claims and disclosure. *CCOM*, 122 A.L.R. at 436.

179. T.A. BLANCO WHITE, *PATENTS FOR INVENTIONS* 78 n.52 (4th ed. 1974). Indeed, Blanco White argued that considerable redundancy existed between notions of “wide claiming” and a whole variety of other traditional validity objections, including obviousness, eligibility, and utility. *Id.* at 79 n. 54.

elements” gloss for the fair basis analysis.¹⁸⁰ In *C. Van der Lely*, the court tied the analysis to essential claim elements as follows:

in order to find that a claim is fairly based on the disclosures in the specification, one has at least to find that that invention for which monopoly is claimed is disclosed as an invention in the specification. The inventor is, in fairness to the public, entitled only to monopolise that which, fairly read, he has disclosed as his invention What one is led to expect in each case is that . . . the specification will disclose with sufficient precision all the essential integers of that invention and the principles upon which it works.¹⁸¹

Interestingly, courts also appeared to assume plenary authority over the fair basis question. Courts have adamantly stated that the reference to “fair” in “fair basis” does not require a factual analysis of the fairness or unfairness of the patentee’s conduct in prosecution.¹⁸² Instead, courts have characterized fair basis as a question of “construction” of the specification.¹⁸³ This has made fair basis a matter for the court, as the court’s observations in *Insituform* indicate:

Whether or not a claim is fairly based is a matter of construction of the claim and the complete specification. This has to be carried out by the court through the eyes of the skilled reader. In so doing, the court can be instructed on technical matters and the background, but thereafter evidence

180. This has particular significance given the move to an “essential element” formulation in *Gentry Gallery* and progeny. See generally *supra* Part II.B..

181. *C. Van der Lely v. Ruston’s Engineering Co.*, [1985] R.P.C. 461, 474 (1985).

182. See, e.g., *id.* at 506; *Stauffer Chemical Co.’s Application*, [1977] R.P.C. 33, 60 (1976); *American Cyanamid Co.’s (Dann’s) Patent*, [1971] R.P.C. 425, 437 (H.L. 1970). See also *Ishihara Sangyo Kaisha Ltd. v. Dow Chemical Co.*, [1987] F.S.R. 137, 148-49 (1986) (citing the foregoing line of cases with approval but noting that they would not necessarily preclude a broad-ranging inquiry into the circumstances to the extent that this inquiry helped elucidate what the disclosure disclosed).

183. See, e.g., *American Cyanamid Co.’s (Dann’s) Patent*, [1971] R.P.C. 425, 437 (H.L. 1970). At least one court adopted a problem/solution approach to this question of construction: “In seeking an answer to the [fair basis] question one must first construe the specification itself to discover the nature of the invention and, where stated, the problem with which the invention is intended to deal.” *C. Van der Lely v. Ruston’s Engineering*, R.P.C. at 506.

is of little assistance.

In the present case, the specification can be understood without the need for explanation from the witnesses and, therefore, the decision as to whether the claim is fairly based must be essentially for the court and not the witnesses.¹⁸⁴

This approach shares much in common with that of Judge Lourie, who dissented recently in *Suntiger*.¹⁸⁵

2. “Fair Basis” in Modern British Patent Law

The role of the fair basis requirement in modern British patent law remains a matter of considerable complexity. The 1977 Act significantly reformulated the grounds for revoking a patent for inadequate disclosure. Eliminating the multiplicity of grounds set forth in sections 32(1)(h) and (i) of the 1949 Act, the 1977 Act instead articulated a generic insufficiency requirement: “[a patent may be revoked if] the specification of the patent does not disclose the invention clearly enough and completely enough for it to be performed by a person skilled in the art.”¹⁸⁶ It seems clear that this language carries forward the insufficiency (enablement) standard from the 1949 Act and eliminates the “best method” requirement.¹⁸⁷

184. *Insituform Technical Services Ltd. v. Inliner UK*, [1992] R.P.C. 83, 95 (Pat. Ct. 1991). Judge Aldous subsequently put a finer point on his *Insituform* analysis:

In the *Insituform* case, I sought to apply those principles by ascertaining the teaching of the specification through the eyes of the skilled man and then deciding whether the specification provided a fair ground or base for the monopoly claimed. In deciding whether a fair base was provided, I took into account that the inventive concept could go wider than the specific embodiment described in the specification. What the inventive concept is, as Oliver L.J. said [in *Van der Lely's*], is a question of purposive construction, but that does not mean that factual matters have to be disregarded. The specification must be read through the eyes of the skilled man and, therefore, the court must adopt his mantle when reading the specification. The court can then decide what the specification explicitly teaches and what the skilled man would understand was implicit and thus be within the natural extension of its teaching.

Rediffusion Simulation Ltd. v. Link-Miles Ltd. [1993] F.S.R. 369, 393 (1992).

185. See *supra* notes 107-16 and accompanying text.

186. Patents Act 1977 (U.K.) § 72(1)(c).

187. See, e.g., *Helitune Ltd. v. Stewart Hughes Ltd.*, [1991] F.S.R. 171, 201 (1990) (noting section 72(1)(c) of the 1977 Act carries forward the 1949 Act section 32(1)(h) notion of insufficiency notwithstanding slight differences in wording: “guidance as to what will be

The fate of the fair basis requirement, however, seems less clear from the language of section 72(1)(c). Some courts and commentators, noting the excision of the specific “fairly based” language from the new provision, understandably assumed that the fair basis requirement had disappeared as a ground of revocation.¹⁸⁸ This assumption drew additional force from the language of section 14 of the 1977 Act. Section 14, which sets forth the adequacy of disclosure requirements for pending applications, includes language nearly identical to the section 72(1)(c) insufficiency requirement.¹⁸⁹ However, section 14 also includes a separate requirement that the claims be “supported” by the description.¹⁹⁰ Therefore, the fair basis requirement, to the extent that it survived the 1977 Act, served only as a ground for rejecting a pending application under a “lack of support” rubric of section 14(5)(c).¹⁹¹ Consequently, litigants could not raise a fair basis challenge to a granted patent. This, of course, conforms with the current European practice.¹⁹² Nevertheless, some judges and commentators have expressed frustration with the discontinuity between pre-grant and post-grant adequacy of disclosure requirements.¹⁹³

sufficient in the old cases is apposite.”). *See also* C.I.P.A. GUIDE, *supra* note 137, at 612 (§ 71.22).

188. *See, e.g.*, Genentech, Inc.’s Patent, [1989] R.P.C. 147 (Ct. App. 1988) (opining that post-grant objections styled as “ambiguity” or “lack of fair basis,” which were valid under former § 32(i), are no longer valid post-grant under the 1977 Act); Asahi Kasei Kogyo KK’s Application, [1991] R.P.C. 485, 510 (Ct. App. 1990) (indicating that the fair basis requirement has disappeared from British patent law), *rev’d on other grounds*, [1991] R.P.C. 485 (H.L. 1991); DAVID YOUNG ET AL., TERRELL ON THE LAW OF PATENTS § 5.04 (14th Ed. 1994).

189. Patents Act 1977 § 14(3) (U.K.) (stating that “[t]he specification of an application shall disclose the invention in a manner which is clear enough and complete enough for the invention to be performed by a person skilled in the art.”).

190. In particular, section 14(5) requires that the claims shall “(a) define the matter for which the applicant seeks protection; (b) be clear and concise; [and] (c) be supported by the description. . . .” *Id.* § 14(5)(c).

191. *See, e.g.*, Glatt’s Application, [1983] R.P.C. 122, 125 (1982) (recognizing the similarity between section 14(5)(c) and the fair basis doctrine).

192. *See supra* Part III.A. *See also* C.I.P.A. GUIDE, *supra* note 137, at 185 (noting that section 14(5)(c)’s support requirement remains analogous to that of EPC Article 84).

193. *See, e.g.*, Chiron Corp. v. Organon Teknika Ltd. (No. 11), [1995] F.S.R. 589 (Ct. App. 1994):

In the 1977 Act, Parliament has carefully adopted the distinction under the Convention between what may be a ground for rejecting a specification, or curtailing a specification, in the Patent Office before grant, and what is to be permissible as a

Against this backdrop, in a remarkable feat of statutory construction, the House of Lords resuscitated the fair basis requirement in *Biogen, Inc. v. Medeva, Inc.*,¹⁹⁴ a landmark decision on biotechnology patenting.¹⁹⁵ Although Lord Hoffman's opinion in *Biogen* addresses inventive step and enablement, its treatment of fair basis is most pertinent in the fair basis context. Lord Hoffman acknowledged that the fair basis requirement had disappeared from the face of the statute, but nevertheless insisted that the fair basis "principle" remained:

[T]he disappearance of 'lack of fair basis' as an express ground for revocation does not in my view mean that general principle which it expressed has been abandoned. The jurisprudence of the EPO shows that it is still in full vigor and embodied in articles 83 and 84 of the EPC, of which equivalents in the 1977 Act are section 14(3) and (5) and section 72(1)(c).¹⁹⁶

In Lord Hoffman's view, the general principle is that the claim must remain confined to the extent of the technical contribution as described in the patent.¹⁹⁷

Although the statutory construction that carries the fair basis "principle" forward into section 72(1)(c) may not provide illumination for those in the United States, other aspects of the

ground for revocation of a patent after grant.

It is mere speculation for us to endeavour to guess at what the reason for that change was.

Id. See also Kern, *supra* note 138, at 281 (referring to an initiative on the part of the United Kingdom's Chartered Institute of Patent Agents to amend the EPC to make article 84's lack of support a ground for revocation); Roberts, *supra* note 139, at 373.

194. [1997] R.P.C. 1 (1996). The claims concerned recombinant DNA technology that induced the production of antigens to the hepatitis-B virus. *Id.* at 40-41.

195. The decision has generated an impressive range of commentary, generally favorable. See Kern, *supra* note 138; Anthony McInerney, *Biotechnology: Biogen v. Medeva in the House of Lords*, 20 EUR. INTELL. PROP. REV. 14 (1998); Catherine Colston, *Genetic Engineering—Failure to Invent? The House of Lords' Decision in Biogen Inc. v. Medeva PLC*, 4 INTELL. PROP. Q. 521 (1997); Ian Karet, *Delivering the Goods*, 19 EUR. INTELL. PROP. REV. 21 (1997); Amanda Warren, *Discrimination by Redefinition: The Judicial Approach to Patenting Biotechnology in the United Kingdom*, 1997 J. BUS. L. 575 (1997).

196. *Biogen*, [1997] R.P.C. at 54.

197. *Id.*

opinion bear consideration.¹⁹⁸ First, the fact that Lord Hoffman felt compelled to reach beyond enablement to a “support” rationale is significant; his opinion contains parallels to the written description requirement in the United States. Second, notwithstanding Lord Hoffman’s careful elucidation of the relationship between the relevant provisions on sufficiency and support (both in the priority context and as grounds for revocation), the *Biogen* standard for “support” does not meaningfully confine judges’ discretion to strike down claims for inadequate disclosure. Criticizing the lower courts and the EPO for inquiring whether the disclosure could “deliver the goods across the full width of the patent or priority document,” Lord Hoffman set out a vivid governing rubric that has the fluidity of the “possession” standard. Lord Hoffman stated, “it is not whether the claimed invention could deliver the goods, but whether the claims cover other ways in which they might be delivered: ways which owe nothing to the teaching of the patent or any principle which it disclosed.”¹⁹⁹ Lord Hoffman proceeded to outline two ways in which the breadth of a claimed invention might exceed the technical contribution in the disclosure; yet he framed both possibilities in the rhetoric of enablement.²⁰⁰

Thus, even this relatively brief excursion through *Biogen* seems to confirm observations from U.S. written description law as to both the nature and likely costs of disclosure doctrines that supplement enablement, be they called “support,” “fair basis,” or something else. Certainly, the support/fair basis notion, as articulated in *Biogen*, appears to leave judges with wide discretion to strike down claims for

198. Lord Hoffman saw distinctions between the “statutory language” and the “substantive effect” of that language:

Section 72(1) states exhaustively the grounds upon which a patent may be revoked. These grounds do not, as such, include noncompliance with section 14(5). But the substantive effect of section 14(5)(c) . . . is given effect by section 72(1)(c). There is accordingly no gap or illogicality in the scheme of the Act.

Id. at 47.

199. *Id.* at 50.

200. First, claims might be drawn to a genus but disclose only a species of the genus, such that the patent claims “results that it does not enable.” *Id.* at 51. Second, a patent “may claim every way of achieving that result which make no use of the invention.” *Biogen*, [1997] R.P.C. at 51 (citing, *inter alia*, *O’Reilly v. Morse*, 56 U.S. (15 How.) 62 (1854) as exemplifying the second scenario).

insufficient supporting disclosure. Presumably, this remains true even if contestants have not proven a violation.²⁰¹ Although this discretion may often be deployed wisely by experienced jurists, like Lord Hoffman, the *Biogen* standard indeed confers vast discretion.

IV.

Only a few years after the arrival of the written description requirement in U.S. law, Judge Markey recognized its character:

How incongruous. How exaltive of form over substance. How illustrative of stare decisis rampant. The board is saying that it doesn't *matter* that one discloses an invention in such "clear, concise and exact terms" (enablement) as to enable its practice, the very purpose and quid pro quo of the patent system from its inception.²⁰²

Judge Markey had it right. The written description requirement is at worst indecipherable, and at best unruly, even when considered in isolation. Viewed together with other disclosure doctrines under U.S. law (e.g., enablement, best mode, utility), the entire exercise of making patent disclosure law very much resembles the proverbial herding of cats, both in its level of cacophony and its likely futility. Comparative analysis reinforces this proposition: written description analogs such as "support" in European patent law and "fair basis" in British patent law seem as indeterminate as the written description requirement. This result occurs despite the best efforts of leading jurists.

Today, however, after repeated (and more aggressive) Federal Circuit invocations of the written description requirement, the weight of stare decisis hangs even heavier. Moreover, comparative study suggests that the written description requirement or analogous doctrines simply may be part of the *realpolitik* of patent disclosure law. Accordingly, it may be overly optimistic to propose that the Federal Circuit dispose of the written description requirement

201. Lord Hoffman, however, would apparently have found enablement ("sufficiency") lacking in any event based on the facts before him. *Id.* at 53.

202. *Barker*, 559 F.2d at 594 (Markey, J., dissenting).

altogether with one bold stroke, or alternatively that Congress address the matter. This does not mean, however, that we ought to resign ourselves to the status quo regarding the written description requirement. Reconsideration of the doctrine with adjustments is possible.

As a first step, the Federal Circuit might simply admit that the written description requirement is redundant of enablement. This would at least allow for a more forthright exploration of the question whether redundancy in patent disclosure requirement remains tolerable.²⁰³ The Federal Circuit could reach the conclusion, perhaps, that the written description requirement simply provides a fail-safe mechanism that judges (or examiners) may use in their discretion in hard cases. Presumably, these are cases where litigants file claims long after filing a disclosure and cases where the existence of conception remains in question due to the nature of the technology. This conclusion would eliminate the need for continued efforts to fabricate a separate standard for written description, whether under the *Gentry Gallery* “essential element” rubric, the “possession” test, or some other similarly ethereal standard.

This approach would yield a more honest jurisprudence, but not a better one. For the reasons expressed in this Article, this level of judicial discretion is too costly, and it would be unfortunate if reform efforts only to make plain the vast scope of judicial discretion under the written description requirement. Instead, courts should resist the narcotic of the written description requirement and redirect their energies towards refining the enablement concept, particularly as it correlates to claim scope.²⁰⁴ Under such a regime courts might, for example, reconsider the simplistic distinction between predictable and unpredictable arts. In doing so courts could confront questions about the scope of enabling disclosures for claims in the mechanical arts. Additionally, courts should carefully consider whether the patent

203. One need not view redundancy as intolerable *per se*. See Randy E. Barnett, *The Virtues of Redundancy in Legal Thought*, 38 CLEV. ST. L. REV. 153, 155 (1990).

204. Judge Markey advocated a similar solution when he stated, “[w]e should not hesitate to recognize that it would have been better if the court had held, in certain past chemical cases, that whatever “enablement” was present, it was not in “full, clear, concise and exact terms,” rather than to have created a “separate description” gloss.” *Barker*, 559 F.2d at 595 (Markey, J., dissenting).

applicant satisfies the enablement disclosure requirement throughout the scope of the claim.

One could imagine a regime that would feature the gradual emergence of a reinvigorated enablement requirement as the dominant disclosure principle. Under this regime, reliance on the written description requirement would become so rare that the written description requirement could finally be discarded. Understandably, this would not instantaneously transform adequacy of disclosure into an easy concept for any patent system. It might, however, cause the patent disclosure jurisprudence to look more like an exercise in developing coherent guidelines, and less like the herding of cats.