

LEGAL UPDATE

TEACHING-SUGGESTION-MOTIVATION UNDER REVIEW: DEVELOPMENTS IN *KSR INTERNATIONAL CO. V. TELEFLEX, INC.*

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I. INTRODUCTION

35 U.S.C. section 103 denies patent protection when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.”¹ Concerned that an invention that was nonobvious “at the time the invention was made” might subjectively appear obvious in hindsight, courts have construed obviousness to preclude patent protection only in cases where there is an objective suggestion to combine in the prior art.² The Federal Circuit formalized this requirement in the “teaching-suggestion-motivation” (TSM) test in 1982.³ Although TSM has been in use for nearly twenty-five years, some critics feel that TSM has no basis in section 103 and improperly addresses many new, rapidly developing technologies.⁴ In *KSR International*

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¹ 35 U.S.C. § 103(a) (2006).

² *In re Senarker*, 702 F.2d 989, 994 (Fed. Cir. 1983) (“... the next questions are (a) whether a combination of the teachings of all or any references would have suggested (expressly or by implication) the possibility of achieving further improvement by combining such teachings along the line of the invention in suit . . .”).

³ Henry C. Su, *The Future of Obviousness*, LAW.COM, Aug. 24, 2006, <http://www.law.com/jsp/article.jsp?id=1156340412305>.

⁴ *See e.g.* Brief of Intel Corporation & Micron Technology, Inc. as Amici Curiae in Support of Petitioner at 4, *KSR Int’l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Aug. 22, 2006) [hereinafter Intel Brief] (“The Federal Circuit’s unilateral imposition of the ‘teaching, suggestions, or motivation’ standard effectively overrides the statutory language of Section 103, which requires obviousness to be examined from the perspective of a person possessing ordinary skill in the relevant art . . .”); Brief for the United States as Amicus Curiae Supporting Petitioner at 19, *KSR Int’l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Aug. 22, 2006) [hereinafter United States Brief] (The absence of such information is likely to be most pronounced in new or rapidly expanding technological fields that create sudden economic incentives to adopt or apply existing knowledge in new but readily conceivable combinations.).

v. Telecom (KSR), argued before the Supreme Court on November 28, 2006, the Supreme Court will review the Federal Circuit's use of TSM and attempt to further clarify the nonobviousness requirement.⁵

II. A BRIEF HISTORY OF OBVIOUSNESS

The Supreme Court introduced the requirement that an invention not only be new and useful but also nonobvious in order to receive patent protection in the 1850 case *Hotchkiss v. Greenwood*.⁶ Being "nonobvious" meant not just creation of a device using skill in a technical field, but also the presence of a "flash of creative genius."⁷ The nonobviousness requirement of *Hotchkiss* was subsequently codified in section 103 of the Patent Act in 1952.⁸ The Supreme Court first attempted to articulate the process for determining nonobviousness in 1966, when it decided *Graham v. John Deere*.⁹ *Graham* outlines a four-factor test for determining obviousness. First, a court must determine the scope and content of the prior art.¹⁰ Second, the court must ascertain the differences between the prior art and the claims at issue.¹¹ Third, the court must resolve the level of ordinary skill in the pertinent art.¹² Finally, the court must evaluate evidence of secondary considerations.¹³ Secondary considerations implying nonobviousness include commercial success, a long-felt but unmet need for a device, and the failure of others to solve the particular problem addressed by the invention in question.¹⁴ While not dispositive, these considerations provide an objective basis "more susceptible of judicial treatment" than technical evidence.¹⁵ The Supreme Court subsequently

⁵ See *KSR Int'l Co. v. Teleflex, Inc.*, NO. 04-1350 (U.S. argued Nov. 28, 2006).

⁶ *Hotchkiss v. Greenwood*, 52 U.S. (11 How.) 248 (1850); DONALD S. CHISUM ET AL., PRINCIPLES OF PATENT LAW 20 (1998) [hereinafter CHISUM] ("The 1836 Patent Act had several features, but most importantly it introduced the requirement under the 1790 Act that patent applications be examined for novelty and utility. In 1850, the Supreme Court, in *Hotchkiss v. Greenwood*, established what, at the time, was generally considered to be an additional patent requirement.").

⁷ *Cuno Eng'g v. Automatic Devices Corp.*, 314 U.S. 84, 91 (1941).

⁸ CHISUM, *supra* note 6, at 541 ("It is undisputed that this section was, for the first time, a statutory expression of an additional requirement for patentability, originally expressed in *Hotchkiss*").

⁹ 383 U.S. 1 (1966); see also *United States v. Adams*, 383 U.S. 39 (1966), one of several companion cases decided on the same day as *Graham*.

¹⁰ *Graham*, 383 U.S. at 17.

¹¹ *Id.*

¹² *Id.*

¹³ *Id.* at 17-18.

¹⁴ *Id.*

¹⁵ *Id.* at 36.

applied *Graham* to preclude mere combinations of known elements as in *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*¹⁶ and in *Sakraida v. Ag Pro, Inc.*¹⁷

It was also in *Anderson's* that the Supreme Court first mentioned a “synergism standard” of review, though the court did not explicitly apply such standard.¹⁸ Under the synergism standard, combinations of elements resulting in more than the sum of their individual effects constitute evidence of nonobviousness.¹⁹ In 1982, Congress enacted the Federal Courts Improvement Act abolishing the Court of Claims and Court of Customs and Patent Appeals and forming the Federal Circuit.²⁰ The Court of Appeals for the Federal Circuit (CAFC) rejected the synergism standard.²¹ Instead, the CAFC identified in the precedent of its two predecessor courts a common test for obviousness that asked whether the prior art suggested an advantage to combine prior elements.²² The CAFC formalized this requirement in the “teaching-suggestion-motivation” test (TSM).²³ Ideally, TSM prevents hindsight bias by requiring a party challenging a patent to identify in the prior art some “suggestion or teaching” to combine the elements as done by the inventor.²⁴ The presence of such prior art provides a more objective

¹⁶ *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969) (holding a patent which combined parts of a bituminous concrete paving machine with a radiant energy generator obvious to a person with ordinary skill in the art).

¹⁷ *Sakraida v. Ag Pro, Inc.*, 425 U.S. 274, 281-82 (1976) (finding a patent for manure removal invalid for obviousness, as it merely combined elements known in the field before the filing of the patent application).

¹⁸ See John Crossan, *Patent Law: Synergism Rejected*, 56 CHI.-KENT L. REV. 339, 344 (1980) [hereinafter Crossan] (“According to the district court, the United States Supreme Court, in *A & P Tead Co. v. Supermarket Corp.*, had only ‘hinted’ at the synergism concept prior to the time the ‘synergism’ term itself emerged in 1969, in *Anderson's Black Rock v. Pavement Co.*”).

¹⁹ *Anderson's* at 61 (“A combination of elements may result in an effect greater than the sum of the several effects taken separately. No such synergistic result is argued here.”).

²⁰ See Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (1982).

²¹ See generally, Crossan, *supra* note 18 at 339 (“The court has emphatically rejected all synergism tests . . .”).

²² Su, *supra* note 3.

²³ CHISUM, *supra* note 6, at 600 (“But, the Federal Circuit and its predecessor, the CCPA, have made it perfectly clear on numerous occasions that before prior art references can be combined under § 103, the references must *suggest* to a person of ordinary skill in the art that he should make the invention and, once made, would have a *reasonable expectations of success*.”).

²⁴ *Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1348 (Fed. Cir. 2000) (“When an obviousness determination is based on multiple prior art references, there must be a showing of some ‘teaching, suggestion, or reason’ to combine the references.” (citing *Gambro*

evidentiary basis for demonstrating obviousness than mere intuition.

Critics of the TSM test argue that neither *Graham* nor section 103 requires a teaching or suggestion.²⁵ These critics believe TSM wrongly protects obvious inventions in technology domains where new developments are frequent and recorded “suggestions or teachings” consequently difficult to identify.²⁶ Software, for example, “makes use of tens or hundreds of collateral inventions, the great majority of which are in the public domain, but a few [of which] might be patented.”²⁷ As a result, many software and computer companies including Cisco Systems, Microsoft, and Intel have sought an opportunity to influence the application of TSM by the courts.²⁸ Three months before *KSR* was granted certiorari by the Supreme Court, the Federal Circuit defended TSM against such critics in the case *In re Kahn*.²⁹

III. CASE HISTORY - KAHN

In re Kahn was decided by the CAFC in March of 2006 and involved a patent application for a speech synthesis system for the blind.³⁰ Kahn argued that his invention merited protection because it satisfied a “long-felt need” - one of the secondary considerations recognized by the Supreme Court in *Graham* as indicative of nonobviousness.³¹ His argument failed, however, because Kahn did not supply any objective evidence substantiating his assertion.³² Kahn also argued that the Patent Board had employed improper

Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579 (Fed. Cir. 1997)).

²⁵ See e.g. Intel Brief at 4 (considering TSM to effectively override the statutory language of § 103).

²⁶ Intel Brief at 5 (“...companies often must divert a portion of their research-and-development funds to obtaining licenses for the use of technological combinations that should be freely available to all.”).

²⁷ Martin Campbell-Kelly, *Not All Bad: An Historical Perspective on Software Patents*, 11 MICH. TELECOMM. & TECH. L. REV. 191, 244 (2005).

²⁸ See Motion for leave to file Amicus Curiae Brief for Cisco Systems Inc. & Microsoft Corp., et al. as Amici Curiae Supporting Petitioners, *KSR Int’l Corp. v. Teleflex, Inc.*, No. 04-1350 (U.S. June 22, 2005); Brief for International Business Machines Corporation as Amici Curiae Supporting Neither Party, *KSR Int’l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Aug. 21, 2006) [hereinafter IBM Brief].

²⁹ Su, *supra* note 3.

³⁰ *In re Kahn*, 441 F.3d 977, 980 (Fed. Cir. 2006).

³¹ *Id.* at 984; see also *Graham v. John Deere*, 383 U.S. 1, 17 (1966) (“Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.”).

³² *Kahn*, 441 F.3d at 985 (“the PTO argues that Kahn proffered no actual evidence”).

hindsight in denying his application.³³ Having denied Kahn protection on evidentiary grounds, Kahn's hindsight assertion provided the court with an opportunity to discuss TSM's evidentiary requirements in connection with section 103 and *Graham*.³⁴

The CAFC argued that TSM adheres to *Graham* by serving as an extension to *Graham's* "analogous art test."³⁵ The analogous art test requires that only evidence "in the field of the applicant's endeavor," or which was "reasonably pertinent to the problem being solved" be admitted as prior art.³⁶ TSM, the court argued, merely extends that test in order to avoid hindsight and does not append a completely new requirement.³⁷ According to the court, such extension does not necessarily conflict with *Graham* or section 103.³⁸ For example, TSM only requires evidence of a teaching or suggestion. It does not dictate how evidence of teaching or suggestion should apply in conjunction with the level of ordinary skill in the art to determine obviousness.³⁹ Nor does TSM limit the teaching chosen to the specific invention disclosed.⁴⁰ Ideally, TSM simply ensures that obviousness determinations are based on more than mere conclusory statements.⁴¹

Despite the reassurances presented in *Kahn*, some feel that TSM demands more from those contesting patents than Congress intended.⁴² Others consider the TSM evidentiary burden to lack a firm statutory basis.⁴³ Without such a

³³ *Id.* at 984.

³⁴ *See id.* at 985-88.

³⁵ *Id.* at 986-87 ("Although our predecessor court was the first to articulate the motivation-suggestion-teaching test, a related test the 'analogous art' test has long been part of the primary *Graham* analysis articulated by the Supreme Court.").

³⁶ *Id.* at 987.

³⁷ *See id.* at 986-87; CHISUM, *supra* note 6, at 541 ("It is undisputed that this section was, for the first time, a statutory expression of an additional requirement for patentability, originally expressed in *Hotchkiss*").

³⁸ *See Kahn*, 411 F.3d at 986-87.

³⁹ *Id.* at 989 ("the Board recognized that the knowledge of the skilled artisan could provide the motivation to combine but concluded that no such knowledge was articulated and placed on the record.").

⁴⁰ *Id.* at 990 (explaining that "the use of patents as references is not limited to what the patentees describe as their own inventions").

⁴¹ *Id.* at 988.

⁴² *See Su*, *supra* note 3 ("The net effect is a lowering of the bar that Congress set for patentability when it codified the pre-existing law of nonobviousness because the Patent Office and litigants essentially have to prove that an invention is not nonobvious, as opposed to proving that it is obvious").

⁴³ Brief of Intellectual Property Law Professors as Amici Curiae in Support of Petitioner at 9-10, *KSR Int'l Co. v. Teleflex, Inc.*, (No. 04-1350) (U.S. Aug. 26, 2006) [hereinafter

basis, the bounds of the test are not clearly demarcated, making its application in summary judgment proceedings inconsistent.⁴⁴ Naturally, it is important for courts to be uniform in how they characterize prior art for the purposes of summary judgment rulings on questions of obviousness. *KSR v. Teleflex* is itself an example of how conflicting interpretations of prior art for the purposes of obviousness can lead a District Court and the CAFC to contrary conclusions about the obviousness of an invention.⁴⁵

IV. KSR

A. *Background*

In 2000, General Motors Corp. (GM) commissioned KSR International to provide specialized gas pedals that could move back and forth so as to accommodate user height.⁴⁶ KSR's pedals differed from previous technologies by incorporating electronic signals rather than mechanical cables.⁴⁷ Electronic signals and adjustable gas pedals had been present independently for some time within the industry, but not in combination.⁴⁸ On Nov. 18, 2002 Teleflex Inc. filed a complaint against KSR claiming that the adjustable pedals infringed Teleflex's patents.⁴⁹

Law Professors Brief] ("This suggestion test cannot be found anywhere in Section 103 or in any other part of the Patent Act. This court has discussed the issue of obviousness on several occasions. None of its discussions gives any basis for grafting a suggestion test onto the statutory language").

⁴⁴ *First Nat'l Bank of Ariz. v. Cities Servs. Co.*, 391 U.S. 253, 288-89 (1968) (finding in regards to summary judgment ". . . all that is required is that sufficient evidence supporting the claimed factual dispute be shown to require a jury or judge to resolve the parties' differing versions of the truth at trial.").

⁴⁵ *Teleflex, Inc. v. KSR Int'l Co.*, 298 F. Supp. 2d 581, 592 (E.D. Mich. 2003), *vacated and remanded*, 119 Fed.Appx. 282 (Fed. Cir. 2005), *cert. granted*, 126 S. Ct. 2965 (2006) (granting KSR's motion for summary judgment after finding "little difference between the teachings of the prior art and claims of the patent-in-suit"); *Teleflex Inc. v. KSR Int'l Co.*, 119 Fed.Appx. 282, 288 (Fed. Cir. 2005), *cert. granted*, 126 S. Ct. 2965 (2006) (denying KSR's motion for summary judgment since "the Asano patent does not address the same problem as the '565 patent").

⁴⁶ Steve Seidenburg, *Patently Obvious*, INSIDECOUNSEL, Oct. 2006, http://www.insidecounsel.com/issues/insidecounsel/15_225/ip/675-1.html.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ Michael Orey, *The Patent Epidemic*, BUSINESSWEEK ONLINE, Jan. 9, 2006, http://www.businessweek.com/magazine/content/06_02/b3966086.htm.

B. District Court Decision

KSR moved for summary judgment against Teleflex in the District Court, arguing that the relevant claim of Teleflex's patent was obvious in light of the prior art.⁵⁰ The District Court, applying TSM, concluded that no material issue of fact existed because the prior art rendered the Teleflex patent claim obvious.⁵¹ Consequently, the court granted summary judgment in favor of KSR.⁵² The court based its analysis on a prior patent granted in 1989 (Asano), which disclosed an adjustable pedal assembly.⁵³ Teleflex argued that Asano could not be prior art because the claim in the Teleflex patent addressed a different problem.⁵⁴ According to Teleflex, the claim at issue sought to address the need for a less complex design, and thus anyone seeking a less complex design would "shun Asano."⁵⁵

KSR argued, and the court agreed, that despite seeking different objectives, the Teleflex and Asano claims shared the same "field of endeavor," which in the court's interpretation was sufficient to make Asano *prima facie* prior art.⁵⁶ The court held "that a person with ordinary skill in the art with full knowledge of Asano and the modular pedal position sensors such as the CTS 503 Series would be motivated to combine the two references . . ."⁵⁷ The court also found an express teaching to attach the electronic control to the support bracket of a pedal assembly based on the disclosure of U.S. Patent No. 5,063,811 (Smith).⁵⁸ During the prosecution history of the Teleflex patent, the patent examiner had rejected the Teleflex claim as obvious several times, citing the combination of Smith and another patent.⁵⁹ It was not until Teleflex added a structural limitation differentiating the claim from the Smith patent that the patent was eventually granted.⁶⁰ The District Court agreed that the limitation differentiated the patent from the Smith patent, but not from Asano, which the

⁵⁰ *Teleflex, Inc. v. KSR Int'l. Co.*, 298 F. Supp. 2d 581, 583 (E.D. Mich. 2003), *vacated and remanded*, 119 Fed.Appx. 282 (Fed. Cir. 2005), *cert. granted*, 126 S. Ct. 2965 (2006).

⁵¹ *Id.* at 594-5 (finding that the patent's prosecution history and the prior art evidenced the obviousness of the design).

⁵² *Id.* at 583.

⁵³ *Id.* at 588.

⁵⁴ *Id.* at 588 ("Defendant responds by arguing that none of the features that allegedly make the '565 patent less complex or less expensive are claimed in claim 4 of the invention.").

⁵⁵ *Id.* at 588-589.

⁵⁶ *Id.* at 588.

⁵⁷ *Id.* at 594.

⁵⁸ *Id.*

⁵⁹ *Id.* at 590.

⁶⁰ *Id.* at 595.

examiner had not cited during the patent's prosecution.⁶¹ The District Court believed that together, the patents rendered the Teleflex claim obvious.

C. Court of Appeals for the Federal Circuit Decision

The CAFC overturned the District Court's summary judgment verdict, describing the District Court's application of TSM as incomplete.⁶² The CAFC's analysis initially resembled the District Court's, relying upon *Graham*, the language of section 103, and the need for a teaching or suggestion.⁶³ The CAFC's analysis differed in their consideration of Asano:

In this case, the Asano patent does not address the same problem as the '565 patent. The objective of the '565 patent was to design a smaller, less complex, and less expensive electronic pedal assembly. The Asano patent, on the other hand, was directed at solving the "constant ratio problem."⁶⁴

Agreeing with Teleflex, the CAFC determined that rather than seek a motivation to combine the electronic control with an "adjustable pedal assembly," the District Court should instead have sought a more specific motivation to attach the electronic control to the support bracket of the pedal assembly.⁶⁵ Under this more specific application, the two patents were directed to different problems and a motivation to combine was not clearly evident.⁶⁶ The CAFC also considered it inappropriate for the court to consider the patent's prosecution history when determining obviousness.⁶⁷ Considering these findings, the CAFC found the patent nonobvious and denied the motion for summary judgment.⁶⁸

V. DISCUSSION – TSM UNDER REVIEW

On review, the Supreme Court will not only have an opportunity to assess

⁶¹ *Id.* at 595.

⁶² *Teleflex, Inc. v. KSR Int'l Co.*, 119 Fed.Appx. 282, 288 (Fed. Cir. 2005), *cert. granted*, 126 S. Ct. 2965 (2006) ("We agree with Teleflex that the district court's analysis applied an incomplete teaching-suggestion-motivation test in granting KSR summary judgment.").

⁶³ *Id.* at 285.

⁶⁴ *Id.* at 288.

⁶⁵ *Id.*

⁶⁶ *Id.* at 288 ("In this case, the Asano patent does not address the same problem as the '565 patent.").

⁶⁷ *Id.* at 289 (finding it was not the court's task to "speculate as to what an examiner might have done if confronted with a piece of prior art" but instead to form an independent assessment).

⁶⁸ *Id.* at 290.

the merits of the District Court and CAFC's TSM analyses, but TSM in its own right. The court may modify the test, replace it with a new interpretation, or remove it altogether. As of October 20, 2006 more than twenty amicus briefs were filed on behalf of both KSR and Teleflex.⁶⁹ The following section summarizes some of the arguments provided on behalf of each side.

A. *Criticisms of TSM*

Critics believe that TSM, by imposing a higher standard on patent challengers, has improperly allowed many obvious inventions to receive patent protection.⁷⁰ Critics argue that these patents stifle rather than encourage innovation by over-monopolizing technical fields.⁷¹ Also, rather than bring hitherto private knowledge into the public domain, these obvious patents remove knowledge that the public already possessed.⁷² Critics further point out that section 103 and *Graham* only require that obviousness be assessed from the perspective of one ordinarily skilled in the art, and make no mention of evidence of teaching or suggestion.⁷³ They also find that the teaching or suggestion requirement makes summary resolution of the issue almost impossible, forcing most infringement actions to be settled out of court to the detriment of potentially meritorious defendants.⁷⁴

⁶⁹ See Docket, KSR Int'l Co. v. Teleflex, Inc., NO. 04-1350 (U.S.), <http://www.supremecourtus.gov/docket/04-1350.htm> (last visited Nov. 19, 2006).

⁷⁰ See Intel Brief at 4 ("To secure the Patent Clause's objective of promoting innovation, patents must be restricted to those claims that truly advance the body of relevant knowledge.").

⁷¹ See *id.* at 14 (describing how the Supreme Court never considered the patent laws to grant a "monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures." (quoting *Atlantic Works v. Brady*, 107 U.S. 192, 200 (1883)); Brief for Economists as Amici Curia Supporting Petitioners at 16-17, KSR Int'l Co. v. Teleflex, Inc., No. 04-1350 (U.S. June 22, 2005) [hereinafter Economists Brief].

⁷² See Intel Brief at 5 ("Far from promoting innovation, the Federal Circuit's 'teaching, suggestion, or motivation' test has impeded technological development by removing prior art combinations from the public domain."); *IBM Brief* at 6 (criticizing Solicitor General's defense of TSM's role as having the potential to "deprive the public of effective notice of the scope of patent rights").

⁷³ See *id.* at 4 (arguing that TSM overrides § 103).

⁷⁴ *Id.* at 5 ("Where a company inadvertently trips over one of these countless combination patents during its research, it faces the unwelcome prospect of settling an infringement claim based on a legally dubious patent or challenging the patent's validity in court under the auspices of the exacting 'teaching, suggestion, or motivation' test."). Intel later mentions "jack-o-lantern" trash bags, an auto theft prevention device well accepted in the prior art and a baseball training device, preexisting for over 30 years, as obvious patents that were awarded because no specific teaching was readily available. *Id.* at 8.

Section 103 requires that patent protection be denied to inventions shown to be obvious, but some critics argue that TSM instead forces challengers to show the invention to be “not nonobvious.”⁷⁵ The latter is a more difficult standard than that applied by the Supreme Court in *Anderson* and in *Sakraida*.⁷⁶ Some critics even argue that the invention the Supreme Court considered obvious in *Graham* would be deemed nonobvious under TSM because no teaching or suggestion was available to oppose it.⁷⁷ By imposing a higher burden, critics believe the test “eviscerates” rather than expands upon the “analogous art test” as the Circuit argued in *Kahn*.⁷⁸

Critics also argue that the TSM framework inadequately accounts for the social and technologic context in which an invention was created.⁷⁹ Not all areas of technology grow systematically, and a general development may precipitate many inventions, each of which would be improperly construed as being novel in isolation.⁸⁰ By inadequately accounting for these factors, critics argue, TSM awards inventors who merely try multiple combinations to create an invention.⁸¹ Rather than promote inventiveness, this practice “needlessly imposes the costs of exclusivity on the public.”⁸²

Critics also take issue with the Federal Circuit’s use of TSM to avoid hindsight bias.⁸³ Some critics would rather prevent hindsight by applying a

⁷⁵ Su, *supra* note 3 (“litigants essentially have to prove that an invention is not nonobvious, as opposed to proving that it is obvious”).

⁷⁶ See Intel Brief at 18 (TSM has “has no place in Graham’s obviousness framework.”).

⁷⁷ Economists Brief at 19 (“For example, under the Federal Circuit’s test, the inventions in *Graham* should have been deemed nonobvious, as there was no explicit or implicit teaching, suggestion, or motivation in the prior art to combine the known mechanical parts.”).

⁷⁸ *Id.* at 26 (“Under that doctrine, once the reference was held analogous, it was available without restriction both for combination of its contents and for what it contemplated.”)

⁷⁹ Law Professors Brief at 4 (“The consideration given to the technical and social context in which a claimed invention was made should expand to incorporate factors suggesting that a claimed invention was an obvious application of ordinary skill, rather than being confined to a one-sided inquiry into indicia of nonobviousness.”).

⁸⁰ See *id.* at 8 (“The appropriate level of inventiveness necessary for patentability may vary by technological area.”).

⁸¹ *Id.* at 27-29; Intel Brief at 6 (finding that TSM Unduly rewards routine technological advances.); United States Brief at 19 (discussing how the “first person to perceive the potential commercial advantage” will acquire a patent while “persons possessing the relevant skills” ignore the matter since they consider it obvious).

⁸² Law Professors Brief at 6.

⁸³ See *In re Kahn*, 441 F.3d 977, 986 (Fed. Cir. 2006) (finding that when motivations, suggestions or teachings are not provided, the court must “infer that the Board used hindsight to conclude that the invention was obvious”); See e.g. United States Brief at 17 n.5 (“But the Kahn decision does not acknowledge the key difference: This Court’s decisions

less restrictive test.⁸⁴ Furthermore, they argue that hindsight bias was never a statutory concern, but rather a judicial assessment of judges' and patent examiners' capabilities.⁸⁵

Critics disagree about how to modify TSM. Some critics interpret precedent in recent Supreme Court rulings such as *Anderson* and *Sakraida* to advocate a "synergy test" rather than TSM.⁸⁶ While the Federal Circuit rejected this approach, these critics consider the "synergy approach" to more closely adhere to Supreme Court intentions.⁸⁷ Other critics read *Anderson* and *Sakraida* to imply a "rebuttable presumption" that an individual skilled in the art could combine the prior references, placing the burden of proof instead upon the patent defender.⁸⁸ Critics generally agree, however, that TSM insufficiently abides by *Graham* and section 103 in its current form.⁸⁹

B. Arguments Supporting TSM

TSM supporters argue against modifying the Federal Circuit's obviousness test in part because decades of federal rulings have engendered considerable reliance upon TSM.⁹⁰ Technology transfers by universities and non-profit organizations, for example, rely heavily upon underlying patent holdings.⁹¹

nowhere suggest that a court or the PTO must make the specific findings that the Federal Circuit requires.")

⁸⁴ See United States Brief at 21 ("The Federal Circuit's rigid test underestimates the capacity of courts and the PTO to avoid the influence of hindsight.")

⁸⁵ See Intel Brief at 11 ("As an initial matter, it is far from clear that judges, especially Federal Circuit judges experienced in patent matters, would succumb so easily to the lure of hindsight").

⁸⁶ United States Brief at 24-25; Law Professors Brief at 19 ("This Court's most recent precedent on the subject of obviousness has been interpreted by some as setting out a special 'synergy test' for interactions among components of so-called 'combination patents.'").

⁸⁷ Law Professors Brief at 20 (discussing how the approach was dropped by the Federal Circuit and commentators because of "difficulty in differentiating combination patents from all others and the vagueness of the synergy concept").

⁸⁸ See IBM Brief at 6 (advocating that the court instead "apply a rebuttable presumption that elements found in multiple prior art references would be combined by the skilled artisan, when all of the elements are found in references within the 'analogous art.'").

⁸⁹ See Law Professors Brief at 4 ("The perspective of the 'person of ordinary skill in the art' must be brought back into its rightful place in the legal inquiry into obviousness").

⁹⁰ See Brief of Wisconsin Alumni Research Foundation et al. as Amici Curiae Supporting Respondents at 11-12, *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Oct. 16, 2006) [hereinafter Research Foundation Brief] ("Any changes that weaken the patent system will ultimately also weaken the ability of the university sector to transfer the fruits of its research endeavors to benefit and improve the human condition.").

⁹¹ *Id.*

Thus, supporters of TSM argue that any uncertainty accompanying a patent's scope or validity will adversely affect negotiations.⁹² These supporters argue that because Congress intended section 103 to inject predictability into the patent analysis, removing TSM at this point would be contrary to Congressional intent.⁹³ Patent validity must be predictable at every stage, and supporters feel that investment in innovation would be chilled if the status of current and prospective patent holders were put at issue.⁹⁴

TSM supporters would also rather defer to Congress than have courts apply their interpretation of a new obvious standard.⁹⁵ Congress has not felt any need to modify the existing standard for decades.⁹⁶ Further, Congress expressed a statutory intention that issued patents be presumed valid.⁹⁷ If TSM were removed, supporters fear that "a capability to combine" rather than a "motivation to combine" would become the basis for denying patent protection, thus negating Congressional intent.⁹⁸

Similarly, some argue that TSM helps distinguish "differences" in the art from "skill" in the art by requiring a specific teaching.⁹⁹ Without a specific

⁹² *Id.*

⁹³ See Brief of Pharmaceutical Research and Manufacturers of America as Amicus Curiae Supporting Respondents at 5, *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Oct. 16, 2006) [hereinafter Pharmaceutical Brief] (arguing that Congress enacted the 1952 Patent Act to "eliminate the subjectivity of the analysis and provide for uniformity in the application of the law.").

⁹⁴ See Brief of Altitude Capital Partners, et al. in Support of Respondents at 10, *KSR v. Teleflex*, No. 04-1350 (U.S. Oct. 16, 2006) ("For this system to work, however, patent validity must be predictable at every stage.") [hereinafter Altitude Capital Brief]; Brief of American Intellectual Property Law Association as Amicus Curiae Supporting Respondents at 6, *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Oct. 12, 2006) [hereinafter AIPLA Brief] ("TSM is a well-established, thoughtfully-analytic framework that provides certainty and uniformity in obviousness determinations while allowing proper flexibility.").

⁹⁵ Brief of the American Bar Association as Amicus Curiae Supporting Respondents at 10, *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Oct. 16, 2006) [hereinafter American Bar Brief] ("Congress, rather than the courts, is in the best position to determine whether significant change is warranted in the longstanding methodology for determining obviousness").

⁹⁶ *Id.* at 9 ("The fact that the Congress has not intervened during several decades - decades that have witnessed unprecedented technological advancement - should be taken into consideration by this Court").

⁹⁷ Research Foundation Brief at 18 (citing 35 U.S.C. § 282) ("When Congress enacted 35 U.S.C. § 282 in 1952, it was careful to include both a presumption of validity for issued patents, and also to place the burden of proving invalidity on the party challenging it").

⁹⁸ Altitude Capital Brief at 23.

⁹⁹ Brief of Lee Thomason as Amicus Curiae Supporting Respondents at 7, *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Sept. 25, 2006).

teaching, supporters of TSM feel a less objective, and consequently less predictable test would result.¹⁰⁰ TSM thus fulfills several critical functions: the test avoids hindsight, provides “the needed flexibility to address questions of obviousness where fact patterns differ,” and “provides certainty and predictability in the methodology of obviousness determinations due to the long history of its use.”¹⁰¹

Where critics of TSM find improvements in technology to mitigate bias, some supporters of TSM feel that such improvements have the opposite effect:

[T]he number of scientific articles cataloged in the internationally recognized peer-reviewed set of Science and Engineering journals covered by the Science Citation Index (SCI) and Social Sciences Citation Index (SSCI) grew to nearly 700,000 in 2003 alone. That repository . . . represents a huge library of information As a consequence, and without some effective guide . . . one would be hard-pressed, perhaps even in most instances, not to find discrete elements of a disclosed and claimed invention with the application of hindsight based upon such disclosure.¹⁰²

Some TSM supporters believe a nonobvious invention’s existence is itself sufficient to create the impression of “an uncreative assembly of old elements.”¹⁰³ Having been presented with the invention, the trier-of-fact’s “cognitive landscape” has been forever changed.¹⁰⁴ Some supporters also consider the USPTO too backlogged and understaffed to combat this bias with sufficient objective evidence.¹⁰⁵ Without TSM, supporters fear triers-of-fact would find it much easier to use an invention in question as a “roadmap” to identify prior art that was nonobvious as originally combined.¹⁰⁶

Rather than replace TSM with a “synergy test” or “rebuttable presumption,” supporters would have the Supreme Court recognize the test’s flexibility in its current form.¹⁰⁷ Also, some TSM supporters do not read *Graham* to encourage

¹⁰⁰ See American Bar Association Brief at 2.

¹⁰¹ AIPLA Brief at 16.

¹⁰² Research Foundation Brief at 9.

¹⁰³ See Altitude Capital Brief at 18.

¹⁰⁴ See *id.*

¹⁰⁵ See *id.* at 30 (“Morale is low, and the turnover rate among examiners is 50% in a five-year period.”)

¹⁰⁶ See Research Foundation Brief at 16 (“This form of hindsight reasoning, using the invention as a roadmap to find it [sic] prior art components, would discount the value of combining various existing features or principles in a new way to achieve new results [sic]-often the very definition of invention” (quoting *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1275)).

¹⁰⁷ See AIPLA Brief at 14 (regarding the requirement for written teachings as being

a synergy-based review, but rather read the case to imply that an actual suggestion to combine individual components would better serve obviousness determinations.¹⁰⁸ They also argue that a synergy standard could preempt secondary considerations to which *Graham* attributed significant weight.¹⁰⁹ Some supporters even feel that nonobvious inventions such as the telephone, electric lamp, and airplane would fail under a synergy test.¹¹⁰

VI. CONCLUSION

Whether the Supreme Court decides to manipulate TSM, substitute a new rule, or to do without the assessment altogether, *KSR* will have significant implications for patents - pending or otherwise. A decision by the court will provide much needed uniformity between Federal Circuit opinions regarding obviousness in summary judgment proceedings, and obviousness more generally. That uniformity will in turn influence the boundaries of existing and future patent rights, beginning a new chapter in the history of section 103.

“fact-specific to the case.”); Brief of Chemistry and Bioengineering Professors as Amici Curiae in Support of Respondents, at 9 *KSR Int’l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Oct. 16, 2006) (noting that “Unexpected” is not synonymous with “synergistic” (citing MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY, 1268, 1366 (11th ed. 2003)); Pharmaceutical at 30 (“Given that a synergy requirement presents an almost impossible requirement to meet, has no basis in the text of § 103, and was intended to be eliminated by the enactment of § 103, it should not be adopted.”).

¹⁰⁸ See AIPLA Brief at 11 (finding support in *Adams*, the companion case to *Graham*, that “mere identification of individual elements in the prior art was insufficient to answer the obviousness inquiry.”).

¹⁰⁹ *Id.* at 12 (finding that *Graham*’s secondary considerations provide “real world factors” by which to implement the obviousness standard).

¹¹⁰ See Chemistry Brief at 14.