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This article provides an overview of “obviousness” in terms of patent law. The discussion focuses on the U.S. Supreme Court’s opinion in *KSR International Co. v. Teleflex Inc.* and federal appellate cases applying the analysis set forth in that opinion.

KSR International Co. v. Teleflex Inc.—Obviousness Revisited

by Jon R. Trembath

The field of patent law experienced many significant changes in 2007. This article focuses on one case in particular. The opinion in *KSR International Co. v. Teleflex Inc.*¹ likely will have the greatest impact of the cases decided in 2007. *KSR* revised the standards by which courts assess the requirement that, for an invention to be patentable, it must not be “obvious.” In particular, *KSR* addresses how courts will consider “prior art”—that is, a combination of ideas in the public domain—to determine whether an invention is obvious and therefore not patentable.

1. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007).

In *KSR*, the U.S. Supreme Court rejected a restrictive test developed by the U.S. Court of Appeals for the Federal Circuit, which required a showing of a “teaching, suggestion or motive” to combine prior art references to invalidate a patent claim for being obvious. In its place, the Court adopted a more flexible test that focuses on whether the prior art “predicted” the combination, while acknowledging that a motive to combine prior art teachings may inform the analysis. Although *KSR* makes it easier to prove “obviousness,” its full impact will only be determined as lower courts apply its teachings in future cases.

Background: Patents and Obviousness

The U.S. patent system is intended to promote innovation. A patent gives an inventor a limited time during which others may be precluded from practicing an invention. However, innovation may be stifled if advances adding insignificantly to society’s collective knowledge are rewarded with patents, precluding others from use of the insignificant advances. Thus, there is an inherent tension between protecting worthy innovation and keeping commonly understood concepts available as building blocks for future innovation.

Section 103 of Title 35 of the U.S. Code is intended to help the U.S. Patent Office and the courts strike the correct balance when considering whether an innovation is worthy of patent protection. Congress determined that inventions that are “obvious” to those familiar with the relevant technological landscape lack the minimal amount of creativity required for a patent. Section 103 precludes patentability 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 to which said subject matter pertains.²

2. 35 U.S.C. § 103.

Patent law thus requires some minimal level of creativity for an invention to be patentable.

What is “obvious” under 35 U.S.C. § 103 apparently is not that obvious, because several Supreme Court opinions have addressed how obviousness should be determined. Lower courts have struggled with articulating viable standards for assessing obviousness. *KSR*, the Supreme Court’s latest consideration of obviousness, rejected a standard adopted by the U.S. Court of Appeals for the Federal Circuit, and offers some guidance for analyzing obviousness. Understanding prior Supreme Court opinions puts *KSR* in context and helps assess its impact on the obviousness analysis.

History: U.S. Supreme Court Case Law

The generally applied roadmap for assessing obviousness under § 103 was set forth in *Graham v. John Deere Co.*³ It provides:

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. Against this background the obviousness or non-obviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.⁴

Graham has been the touchstone for the obviousness analysis since its issuance in 1966.

The Anderson’s-Black Rock and Sakraida Opinions

3. *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

4. *Id.* at 17-18.

Two other cases that address obviousness are *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*⁵ and *Sakraida v. AG Pro, Inc.*⁶ However, unlike *Graham*, these cases had been ignored, effectively vacated *sub silencio*, by the Federal Circuit. Because *KSR* arguably revives *Anderson's-Black Rock* and *Sakraida*, knowledge of these opinions is helpful to understanding *KSR*.

In *Anderson's-Black Rock*, the invention was placement of a radiant-heat burner on a standard asphalt paving machine.⁷ Use of radiant heat with asphalt was known.⁸ Placing the heater on the paving machine improved the bonding of subsequent layers of asphalt and thus improved the overall quality of the pavement placement.⁹ However:

The combination of putting the burner together with the other elements in one machine, though perhaps a matter of great convenience, did not produce a “new or different function,” within the test of validity of combination patents.¹⁰

According to the Court, an obviousness analysis could be informed by whether synergy existed in the combination of known elements. The Court stated, “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.”¹¹

The Court concluded:

while the combination of old elements performed a useful function, it added nothing to the nature and quality of the radiant-heat burner

5. *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969).

6. *Sakraida v. AG Pro, Inc.*, 425 U.S. 273 (1976).

7. *Anderson's-Black Rock*, *supra* note 6 at 59.

8. *Id.* at 60.

9. *Id.* at 58-60.

10. *Id.* at 60 (citation omitted).

11. *Id.* at 61 (emphasis added).

already patented. We conclude further that[,] to those skilled in the art[,] the use of the old elements in combination was not an invention by the obvious-nonobvious standard. Use of the radiant-heat burner in this important field marked a successful venture. But as noted, more than that is needed for invention.¹²

Sakraida was the last significant word on obviousness from the Supreme Court before *KSR*. The invention in *Sakraida* was the rapid release of a sheet of water to clean a barn floor.¹³ The *Sakraida* Court quoted the following from *Great A. & P. Tea Co. v. Supermarket Corp.*:¹⁴

Courts should scrutinize combination patent claims with a care proportioned to the difficulty and improbability of finding invention in an assembly of old elements. . . . A patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what already is known into the field of its monopoly and diminishes the resources available to skillful men. . . .¹⁵

In responding to the Court of Appeals' conclusion that the invention achieved a "synergistic result through a novel combination," the *Sakraida* Court stated:

We cannot agree that the combination of these old elements to produce an abrupt release of water directly on the barn floor from storage tanks or pools can properly be characterized as *synergistic*, that is, "result[ing] in an effect greater than the sum of the several effects taken separately." Rather, this patent simply arranges old elements with each performing the same function it had been known to perform. . . . Such combinations are not patentable under standards appropriate for a combination patent. . . . [T]his assembly of old elements that delivers water directly rather

12. *Id.* at 62-63.

13. *Sakraida*, *supra* note 7 at 277.

14. *Great A. & P. Tea Co. v. Supermarket Corp.*, 340 U.S. 147, 152 (1950).

15. *Sakraida*, *supra* note 7 at 281.

than through pipes or hoses to the barn floor falls under the head of “the work of the skillful mechanic, not that of the inventor.” Exploitation of the principle of gravity adds nothing to the sum of useful knowledge where there is no change in the respective functions of the elements of the combination; this particular use of the assembly of old elements would be obvious to any person skilled in the art of mechanical application.¹⁶

The *Anderson’s-Black Rock* and *Sakraida* opinions, read together, suggest that the Supreme Court believed an invention combining known prior art elements likely would be obvious, unless some synergy could be shown from the combination.

History: Federal Circuit Case Law

Formed in 1982,¹⁷ the U.S. Court of Appeals for the Federal Circuit generally has exclusive jurisdiction over appeals from patent cases filed in any U.S. District Court. In the years preceding the formation of the Federal Circuit, the United States was struggling with high inflation, declining innovation, and stagnant growth.¹⁸

One perceived key to economic recovery and stability was the encouragement of industrial innovation.¹⁹ Studies suggested industrial innovation was being impeded by the lack of uniformity in the application of patent laws.²⁰ The Federal Circuit was formed to “bring consistency into

16. *Id.* at 282 (citations omitted, emphasis added).

17. Pub. L. No. 97-164, 96 Stat. 25 (1982).

18. Bennett, ed., *The U.S. Court of Appeals for the Federal Circuit—A History 1982-1990* at 8 (The United States Judicial Conference Committee on the Bicentennial of the Constitution of the United States, 1991).

19. *Id.*

20. *Id.* at 8-9.

this field of law and to restore the incentive for technological innovation.”²¹ Congress anticipated the resulting uniformity would “foster technological growth.”²²

The Federal Circuit quickly distanced itself from *Anderson’s-Black Rock* and *Sakraida*. In *ASC Hospital Systems v. Montefiore Hospital*,²³ the Federal Circuit held that “teachings of [prior art] references can be combined *only* if there is some suggestion or incentive to do so” (emphasis in original). This was a fundamental shift in favor of the patentee from *Anderson’s-Black Rock* and *Sakraida*.

The Federal Circuit’s position evolved into a requirement that obviousness could be found only if some “teaching, suggestion or motivation” to combine the prior art references could be shown in the prior art.²⁴ The Federal Circuit ignored the Supreme Court’s use of synergy to evaluate the obviousness of a combination of known elements.

The Federal Circuit cited *Anderson’s-Black Rock* only twice before the Supreme Court granted *certiorari* in *KSR*²⁵—once calling a district court’s citation to *Anderson’s-Black Rock* a lapse; and once simply ignoring the obviousness analysis.²⁶ Before *KSR*, *Sakraida* was cited four times by the Federal Circuit. In each instance, *Sakraida* was not followed.²⁷

21. *Id.* at 11.

22. H.R. Rep. No. 97-312, at 20 (1981).

23. *ASC Hospital Systems v. Montefiore Hospital*, 732 F.2d 1572, 1577 (Fed.Cir. 1984).

24. *See, e.g., Al-Site Corp. v. VSI Int’l, Inc.*, 174 F.3d 1308, 1323-24 (Fed.Cir. 1999).

25. *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1369 (Fed.Cir. 2006), references *Anderson’s-Black Rock* and *Sakraida* and was decided after *certiorari* had been granted in *KSR*.

26. *See Fromson v. Advance Offset Plate*, 755 F.2d 1549, 1557 (Fed.Cir. 1985) (discussing *Anderson’s-Black Rock* but disregarding the synergy analysis); *Gardner v. TEC Sys., Inc.*, 725 F.2d 1338, 1343 (Fed.Cir. 1984), *en banc* (“the trial court unfortunately and unnecessarily lapsed into enunciating what it apparently perceived to be an additional requirement for patentability. . . .” The

It generally was recognized that *Anderson's-Black Rock* and *Sakraida* had been tacitly overruled. As noted in a law school case book, “[i]n its early decisions, the Federal Circuit essentially repudiated the holdings of *Anderson's-Black Rock* and *Sakraida*.”²⁸ It was common knowledge that “[t]he impact of *Anderson's-Black Rock* and *Sakraida*, has not been significant. The court of Appeals for the Federal Circuit, which exercises exclusive jurisdiction over patent appeals, essentially has ignored these decisions. . . .”²⁹

The *KSR* Case

The patent claim at issue in *KSR* related to where a wireless sensor could be placed on an automotive gas pedal.³⁰ The Asano patent was a prior art reference “teaching”—that is, explaining or demonstrating—a pedal that could be adjusted relative to a driver and that had a fixed pivot point.³¹

lapse was requiring the “synergistic result” found in *Anderson's-Black Rock* in an obviousness analysis.)

27. See *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 306 n.43 (Fed.Cir. 1985) (mentioning *Sakraida* but ignoring the “synergy” analysis); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed.Cir. 1985) (mentioning *Sakraida* but ignoring the “synergy” analysis); *Merck & Co. v. Biocraft Labs.*, 874 F.2d 804, 808 (Fed.Cir. 1989) (“[s]ynergism is not a requirement of nonobviousness”); *Medtronic, Inc. v. Cardiac Pacemakers, Inc.*, 721 F.2d 1563, 1566 (Fed.Cir. 1983) (“[w]e cannot construe [‘courts should scrutinize combination patent claims with a care proportioned to the difficulty and improbability of finding inventions in an assembly of old elements’], take from [*Sakradia*] as a rule of law applicable broadly to patent cases. . . .”).

28. Adelman *et al.*, *Cases and Materials on Patent Law* (2d ed. 2003).

29. Oddi, “Beyond Obviousness: Invention Protection in the Twenty-First Century,” 38 *Am. U. L.Rev.* 1097, 1123 (1989).

30. *KSR*, *supra* note 2 at 1735.

31. *Id.* at 1735.

Defendant KSR argued that Asano, combined with prior electronic sensor art, rendered the patent invalid.³²

District Court Ruling

The district court granted summary judgment of invalidity, finding the claimed invention obvious.³³ The district court found “little difference” between the prior art and the claimed invention.³⁴ Applying the analysis mandated by *Graham*, the court determined that Asano taught everything claimed “except the use of a sensor to detect the pedal’s position and transmit it to the computer controlling the throttle.”³⁵ The district court observed the missing idea was disclosed in the prior art.³⁶

Reversal by the Federal Circuit

The Federal Circuit reversed, relying primarily on the failure to satisfy the so-called “teaching, suggestion or motivation” (TSM) test.³⁷ Specifically, the Federal Circuit faulted the district court for failing to make “findings as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of [the] invention . . . to attach an electronic control to the support bracket of the Asano assembly.”³⁸ The court concluded there was no motivation for an inventor to look at the prior art relied on by the district court.³⁹ Also, the

32. *Id.* at 1738.

33. *Id.* at 1737-38.

34. *Id.* at 1738.

35. *Id.*

36. *Id.* at 1736, 1738.

37. *Id.* at 1738.

38. *Id.*

39. *Id.*

court found a genuine issue of material fact requiring a trial, because expert testimony that the claimed invention was not obvious was presented.⁴⁰

The Supreme Court Opinion

The Supreme Court began its analysis by tersely stating: “We begin by rejecting the rigid approach of the Court of Appeals.”⁴¹ The Court then discussed its prior cases focusing on predictability, beginning with *Great A. & P. Tea Co. v. Supermarket Equipment Corp.*⁴² The Court offered the following from *Great Atlantic* as the “principal reason for declining to allow patents for what is obvious”—a “patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men.”⁴³ The Court concluded: “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield *predictable* results.”⁴⁴

Citing *United States v. Adams*⁴⁵ as an example of what was not obvious,⁴⁶ the Court observed that *Adams* “recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a *predictable* result.”⁴⁷ The invention in *Adams*

40. *Id.* at 1739.

41. *Id.*

42. *Id.* *Great A. & P. Tea Co.* was decided before the 1952 Patent Act that created 35 U.S.C. § 103.

43. *Id.* at 1739, quoting *Great A. & P. Tea Co.*, *supra* note 15 at 152.

44. *Id.* (emphasis added).

45. *United States v. Adams*, 383 U.S. 39 (1966).

46. *KSR*, *supra* note 2 at 1739-40.

47. *Id.* at 1740 (emphasis added).

was deemed not obvious because “the elements worked together in an *unexpected* and fruitful manner.”⁴⁸

The invention in *Anderson’s-Black Rock* was a device that “did not create some new synergy.”⁴⁹ The elements functioned just as they were expected to function and “in combination did no more than they would in separate, sequential operation.”⁵⁰ According to *Sakraida*, a patent that “‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.”⁵¹

In summary, the Court stated:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a *predictable* variation, § 103 likely bars its patentability. . . . [A] court must ask whether the improvement is more than the *predictable* use of prior art element according to their established functions.⁵²

The Supreme Court’s Analysis

After resurrecting *Anderson’s-Black Rock* and *Sakraida* from the grave of disregarded precedent and rejecting the “rigid” TSM approach applied by the Federal Circuit, the Court set forth a more flexible approach to assessing obviousness. To understand the Court’s approach, it is helpful to consider the Court’s understanding of why obviousness is part of Title 35:

We build and create by bringing to the tangible and palpable reality around us new works based on instinct, simple logic, ordinary

48. *Id.*

49. *Id.*

50. *Id.*

51. *Id.*, quoting *Sakraida*, *supra* note 7 at 282.

52. *Id.* (emphasis added).

inferences, extraordinary ideas, and sometimes even genius. These advances, once part of our shared knowledge, define a new threshold from which innovation starts once more. And as progress beginning from higher levels of achievement is expected in the normal course, the results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts. These premises led to the bar on patents claiming obvious subject matter established in *Hotchkiss* and codified in § 103. Application of the bar must not be confined within a test or formulation too constrained to serve its purpose.⁵³

The Court's flexible analysis is intended to protect only ideas beyond the ordinary while leaving the rest open for exploitation. The Court did not create a rule that inventions derived from combining known elements are *per se* obvious. The fact that every element of an invention existed in prior art does not mean that the invention is necessarily obvious:⁵⁴

This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.⁵⁵

In many instances, there may be prior art references that might in some way, at some level of abstraction, disclose the elements of an invention. Thus the question is how to determine whether a combination is not obvious and thus protectable or obvious and in the public domain.

The Court used *Adams* as an example of a nonobvious invention made by combining elements known in the prior art.⁵⁶ There, the prior art taught

53. *Id.* at 1746 (citation omitted).

54. *Id.* at 1741.

55. *Id.*

56. *Id.*

away from the solution identified in the patent at issue.⁵⁷ In finding the invention not obvious, the *Adams* Court relied on the “principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.”⁵⁸

Although it strongly criticized the rigid application of the TSM test, the Court concluded, “There is no necessary inconsistency between the idea underlying the TSM test and the *Graham* analysis. But when a court transforms the general principle into a rigid rule that limits the obviousness inquiry, as the Court of Appeals did here, it errs.”⁵⁹ The Court characterized the TSM test as “a helpful insight” and noted “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.”⁶⁰

The Court’s discussion of *Adams* and the TSM test suggest that a proper analysis will consider what was known about the elements of a claimed invention before the inventor filed for the patent. Evidence suggesting the combination embodied in the claimed invention would not work, or that the combination should not be tried, weighs in favor of nonobviousness. On the other hand, evidence suggesting the combination weighs in favor of obviousness.

The Court provided guidance about what evidence might suggest a combination, while rejecting an “overemphasis on the importance of published articles and the explicit content of issued patents.”⁶¹ These provide a beginning point in the search for a motive to combine the claimed

57. *Id.*

58. *Id.*

59. *Id.*

60. *Id.*

61. *Id.*

elements. Stressing the fundamental tenets of its earlier (and largely ignored) opinions on the matter, the Court emphasized that the obviousness inquiry required a flexible, “common-sense” approach that invites questions, such as whether the invention addresses a known problem or market pressure by implementing an idea from a finite set of solutions familiar to those of ordinary skill in the field.⁶²

Specifically, the Court stated:

When there is a design need or market pressure to solve a problem and there are a finite number of identified predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.⁶³

The Court rejected the argument that, when evaluating obviousness, the fact finder is limited to art addressing the specific problem the patentee was trying to solve.⁶⁴ Thus, the inquiry is not whether the invention was obvious to the actual patentee; as long as someone of ordinary skill would look to solve a known problem in the manner selected by the patentee, the invention may have been obvious and therefore unpatentable.

As a further example, in rejecting the TSM test, the Court stated, “Rigid preventative rules that deny fact finders recourse to common sense, however, are neither necessary under our case law nor consistent with it.”⁶⁵ In somewhat of a restatement, the Court explained, “A person of ordinary skill is also a person of ordinary creativity, not an automaton.”⁶⁶ When considered in light of the function obviousness plays in balancing reward for patentable invention against the desire to leave the building blocks for

62. *Id.* at 1742.

63. *Id.* at 1741.

64. *Id.* at 1742.

65. *Id.* at 1742-43.

66. *Id.* at 1742.

ordinary innovation in the public domain, the focus on common sense weaves the teachings of *KSR* into a useful addition to the fabric of obviousness law.

Application of the Analysis

Obviousness is not easily defined and must be evaluated on a case-by-case basis. The overall objective of promoting innovation must inform each analysis as a court asks “whether the improvement is more than the predictable use of prior art elements according to their established functions.”⁶⁷ As the evaluation is made, a court will consider what a person of skill in the art with ordinary creativity would have felt about the innovation: Did the prior art teach away from what was claimed? Did market pressure or the natural evolution of development in the field lead to ordinary innovation? Did the prior art itself teach making the claimed combination? Focusing on common sense, the court then would determine whether it would have been obvious to combine the prior art elements to create the claimed invention.

Obviousness and Summary Judgment

As noted above, the Federal Circuit offered the existence of a genuine issue of material fact as an additional reason for reversing the district court’s grant of summary judgment of invalidity.⁶⁸ The Supreme Court disagreed, stating:

The ultimate judgment of obviousness is a legal determination. Where, as here, the content of the prior art, the scope of the patent claim,⁶⁹ and

67. *Id.* at 1740.

68. *Id.* at 1745.

69. The scope of a patent claim also is a question of law. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996). Thus, what the Court intended by mentioning “scope of a patent” is open to question.

the level of ordinary skill in the art are not in material dispute, and the obviousness of the claim is apparent in light of these factors, summary judgment is appropriate.⁷⁰

Post-*KSR* Case Law

Anderson's-Black Rock and *Sakraida* suggest an invention lacking unexpected synergy is obvious. *KSR* arguably resurrected *Anderson's-Black Rock* and *Sakraida* and the requirement that synergy be shown to avoid obviousness. On the other hand, *KSR* arguably did little to change the Federal Circuit's requirement that a motive to combine known prior art elements must be shown to prove obviousness and the purported synergy requirement, in context, does not affect the obviousness analysis.

The Court's focus on predictability may provide a meaningful touchstone for future obviousness evaluations. In the alternative, it may be perceived as nothing more than a synonym for obviousness that does little to change the analysis under § 103. A brief review of post-*KSR* cases suggests that *KSR* likely tilts the balance in favor of "obviousness" defenses. However, the balance probably has not shifted so far as to require a showing of synergy to avoid obviousness, as arguably mandated by *Anderson's-Black Rock* and *Sakraida*.

Federal Circuit Cases

The Federal Circuit has not ignored *KSR*. Most post-*KSR* Federal Circuit opinions addressing the merits of an obviousness challenge have resulted in patent claims being obvious. The more important post-*KSR* Federal Circuit opinions are discussed below.

*In re Translogic Technology, Inc.*⁷¹ Here, the Federal Circuit affirmed a finding of obviousness. The court characterized *KSR* as correcting "a

70. *KSR*, *supra* note 2 at 1745-46 (citation omitted).

71. *In re Translogic Technology, Inc.*, 504 F.3d 1249 (Fed.Cir. 2007).

rather straightforward error”—that the Federal Circuit overlooked the “proposition that obvious variants of prior art references are themselves part of the public domain.”⁷²

After the *KSR* petition for *certiorari* was filed and before *KSR* issued, the Federal Circuit suggested its obviousness analysis was “flexible” and required “consideration of common sense and common knowledge.”⁷³ The Federal Circuit also indicated there was no requirement of an actual teaching to combine references; rather, the motivation to combine could be found implicitly in the prior art.

The court concluded that *Translogic*, a patent applicant, was making the mistake corrected by *KSR* by claiming the prior art cited was not relevant because it did not address the problem addressed in the patent.⁷⁴ The *Translogic* court also implied that the Supreme Court accepted the Federal Circuit’s post-*KSR* “suggestion” test that “not only permits, but *requires*, consideration of common knowledge and common sense.”⁷⁵ According to the court, “an obviousness analysis ‘need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.’”⁷⁶ The court went on to say that a person of ordinary skill would have “solved the design need by ‘pursu[ing] known options within his or her technical grasp.’”⁷⁷ The court concluded that a person of ordinary skill in the art would have known of the prior art references and how to combine there teachings.⁷⁸

72. *Id.* at 1257.

73. *Id.*, citing *KSR*, *supra* note 2 at 1743.

74. *Id.*

75. *Id.*, quoting *KSR*, *supra* note 2 at 1743 (emphasis original).

76. *Id.*, quoting *KSR*, *supra* note 2 at 1741.

77. *Id.*, quoting *KSR*, *supra* note 2 at 1742).

78. *Id.*

*Aventis Pharma Deutschland GmbH v. Lupin, Ltd.*⁷⁹ Here, the patentability of a purified composition was at issue. After noting that *KSR* discouraged application of the TSM test as a rigid, mandatory formula, the court stated, “It remains necessary to show ‘some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ but such reasoning ‘need not seek out precise teachings directed to the specific subject matter of the challenged claim.’”⁸⁰

The court found the reasoning supporting obviousness inherent in the knowledge of a person of ordinary skill in the art, stating, “[o]rdinarily, one expects a concentrated or purified ingredient to retain the same properties it exhibited in a mixture, and for those properties to be amplified when the ingredient is concentrated or purified; isolation of interesting compounds is a mainstay of the chemist’s art. If it is known how to perform such an isolation, doing so ‘is likely the product not of innovation but of ordinary skill and common sense.’”⁸¹ The court also noted there were no unexpected results and the claims were held obvious.⁸²

*Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*⁸³ Here, the Federal Circuit affirmed a finding that claimed compounds would not have been obvious. The court noted that *KSR* “acknowledged the importance of identifying ‘a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does’ in an obviousness determination.”⁸⁴ The court concluded, “in cases involving new chemical compounds, it remains necessary to

79. *Aventis Pharma Deutschland GmbH v. Lupin, Ltd.*, 499 F.3d 1293, 1301 (Fed.Cir. 2007).

80. *Id.* at 1301, quoting *In re Kahn*, 441 F.3d 977, 988 (Fed.Cir. 2006) and *KSR*, *supra* note 2 at 1741.

81. *Id.* at 1302, quoting *KSR*, *supra* note 2 at 1742.

82. *Id.* at 1302-03.

83. *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350 (Fed.Cir. 2007).

84. *Id.* at 1356-57, quoting *KSR*, *supra* note 2 at 1731.

identify some reason that would have led a chemist to modify a known compound in a particular manner to establish *prima facie* obviousness of a new claimed compound.”⁸⁵ The defendant failed to make this required showing.⁸⁶

The accused infringer argued that *KSR* mandated reversal because it would have been “obvious to try” the claimed compounds.⁸⁷ The Federal Circuit noted that testimony from the defendant’s 30(b)(6) witnesses suggested there were known negative side effects for compounds similar to those claimed.⁸⁸ The side effects negated the argument that it would have been “obvious to try” what resulted in the invention.⁸⁹

Leapfrog Enterprises v. Fischer-Price, Inc.⁹⁰ Here, a finding of obviousness was affirmed. The invention was using modern electronics to update a mechanical toy that taught reading by associating letters with sounds.⁹¹ The goal of the claimed invention “was to allow a child to press a switch associated with a single letter in a word and hear the sound of the letter as it is used in the word.”⁹² A prior art device accomplished the same end mechanically.⁹³

The court acknowledged *KSR* taught that “predictable results” is a marker for obviousness.⁹⁴ Although it did not use the word “predictable,”

85. *Id.* at 1357.

86. *Id.*

87. *Id.* at 1359.

88. *Id.*

89. *Id.*

90. *Leapfrog Enters. v. Fischer-Price, Inc.*, 485 F.3d 1157 (Fed.Cir. 2007).

91. *Id.* at 1160.

92. *Id.*

93. *Id.*

94. *Id.*

the court focused on the predictability of updating a mechanical device with modern electronics:

Accommodating a prior art mechanical device that accomplishes that goal to modern electronics would have been reasonably obvious to one of ordinary skill in designing children’s learning devices. Applying modern electronics to older mechanical devices has been commonplace in recent years.⁹⁵

The court found the motivation to upgrade the mechanical system with modern electronics in the “commonly understood benefits of such adaptation, such as decreased size, increased reliability, simplified operation, and reduced cost.”⁹⁶ Motivation to combine may be shown when the reasons for combining prior art are known—such as, adding benefits “to increase [] marketability.”⁹⁷

Addressing the patentee’s burden, the court noted the absence of evidence that making the combination was “uniquely challenging or difficult for one of ordinary skill in the art.”⁹⁸ “Our conclusion is further reinforced by testimony from the sole inventor at trial that he did not have a technical background, could not have actually built the prototype himself, and relied on the assistance of [others] to build a prototype of his invention.”⁹⁹ This novel analysis suggests the difficulty of reducing an invention to practice may become a factor when considering obviousness. Secondary considerations were shown but were found inadequate to overcome obviousness.¹⁰⁰

95. *Id.*

96. *Id.* at 1162.

97. *Id.*

98. *Id.*

99. *Id.*

100. *Id.*

*In re Icon Health and Fitness, Inc.*¹⁰¹ Here, the court found a spring assist for a folding treadmill obvious. The patentee argued that prior art relating to a folding bed was not relevant art and, therefore, could not inform an obviousness analysis.¹⁰² The court agreed that the field was different, but concluded the problem addressed was the same.¹⁰³ Relying on *KSR*, the court stated, “any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.”¹⁰⁴

The patentee argued the prior art “taught away” from the claimed invention.¹⁰⁵ Relying on *KSR*’s statements about predictability, the court rejected this argument.¹⁰⁶ The prior art taught the exact result claimed, which apparently was a marker for predictability.¹⁰⁷

The patentee also argued that combining the prior art would yield an inoperable device.¹⁰⁸ The court first noted that the breadth of the claims were such that the prior art would create an operable device, satisfying the claims.¹⁰⁹ The court further reasoned that those of skill in the art would know how to modify the combination to make it operable.¹¹⁰

District Court Cases

101. *In re Icon Health and Fitness, Inc.*, 496 F.3d 1374 (Fed.Cir. 2007).

102. *Id.* at 1379.

103. *Id.*

104. *Id.* at 1380, quoting *KSR*, *supra* note 2 at 1742.

105. *Id.* at 1381.

106. *Id.*

107. *Id.*

108. *Id.* at 1381-82.

109. *Id.*

110. *Id.* at 1382.

Federal district courts have likewise taken note of *KSR*. The relevant district court decisions are discussed below.

Single Chip Systems Corp. v. Intermec IP Corp.¹¹¹ Here, the defendant proposed a twenty-one-factor test for evaluating obviousness.¹¹² The U.S. District Court for the Southern District of California noted *KSR*'s rejection of a rigid obviousness analysis and call for common sense, stating, "this Court[] rejects that an obviousness analysis requires the rigid application of a 21-factor test . . . and instead will apply a flexible and expansive approach as mandated by *KSR*."¹¹³ Summary judgment of invalidity was granted for broadly asserted claims, and a genuine issue of material fact was found for some narrower claims, because there was a question about whether some references were from analogous art and whether there was a motive to combine these references.¹¹⁴

PBI Performance Products, Inc. v. Norfab Corp.¹¹⁵ The U.S. District Court for the Eastern District of Pennsylvania rejected the plaintiff's attempt to read limitations into the claims from the specification to narrow the scope of applicable prior art.¹¹⁶ The motive to combine was found because the prior art sought to solve the same problem addressed by the asserted patent.¹¹⁷ Moreover, the asserted patent merely incorporated "a predictable use of prior art elements according to their established

111. *Single Chip Systems Corp. v. Intermec IP Corp.*, 495 F.Supp.2d 1066 (S.D.Cal. 2007).

112. *Id.* at 1078.

113. *Id.*

114. *Id.* at 1091.

115. *PBI Performance Products, Inc. v. Norfab Corp.*, 514 F.Supp.2d 732 (E.D.Pa. 2007).

116. *Id.* at 739.

117. *Id.* at 742.

functions.”¹¹⁸ Summary judgment of invalidity for obviousness was granted.¹¹⁹

*Friskit, Inc. v. Realnetworks, Inc.*¹²⁰ The U.S. District Court for the Northern District of California granted summary judgment of invalidity based on obviousness.¹²¹ The court determined that the invention was a combination of known elements that displayed no “new functionality” when combined—the result of the combination was predictable.¹²² Evidence of secondary considerations (objective indicia of nonobviousness) was shown but was insufficient to overcome the obviousness showing.¹²³

*Depuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*¹²⁴ The defendants relied on the doctrine of “ensnarement” to preclude application of the doctrine of equivalents to capture their product.¹²⁵ They asserted that claims broadened under the doctrine of equivalents to cover their product would necessarily capture prior art, rendering a hypothetical claim with the broadened scope obvious.¹²⁶

The defendants focused on *KSR*’s references to predictability and suggested that a motivation to combine was no longer relevant to a proper obviousness analysis.¹²⁷ Rejecting this interpretation of *KSR*,¹²⁸ the court

118. *Id.*

119. *Id.* at 743.

120. *Friskit, Inc. v. Realnetworks, Inc.*, 499 F.Supp.2d 1145 (N.D.Cal. 2007).

121. *Id.*

122. *Id.* at 1153.

123. *Id.* at 1154.

124. *Depuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 2007 U.S. Dist. Lexis 90722 (D. Mass. 2007).

125. *Id.* at 5-8.

126. *Id.* at 19.

127. *Id.* at 22.

128. *Id.* at 22-23.

concluded that *KSR* “reaffirms the relevance of motivation.”¹²⁹ The court analyzed *KSR*, placing the Supreme Court’s statements in context and determined that the “bright-lined standard the defendants appear to be promoting is not consonant with *KSR*’s broader teaching, which suggest that flexibility and common sense, rather than rigidity and formalism, should drive the obviousness determination.”¹³⁰

Alluding to *Anderson’s-Black Rock* and *Sakraida*’s suggestion that synergy was required to show nonobviousness, defendants also stated “[u]nder *KSR* a combination of old elements must produce some new or unexpected result to be patentable.”¹³¹ Based on its analysis of *KSR* and the mandate for “flexibility and common sense,” the court rejected defendant’s “synergy” argument.¹³²

The court found prior art teaching away from the proposed obviousness combination.¹³³ Secondary considerations confirmed the lack of obviousness.¹³⁴ The hypothetical claim was found nonobvious and judgment of \$26.3 million was entered.¹³⁵

Sud-Chemie, Inc. v. Multisorb Technologies, Inc.¹³⁶ This case appears to have resurrected the synergy concept from *Anderson’s-Black Rock* and *Sakraida*. Relying on *Anderson’s-Black Rock*, the U.S. District Court for the Western District of Kentucky found that the device did not “create some new synergy.”¹³⁷ The court also appeared to require that elements work

129. *Id.* at 23.

130. *Id.* at 24.

131. *Id.* at 25.

132. *Id.*

133. *Id.* at 27, 30.

134. *Id.* at 37.

135. *Id.* at 42-43.

136. *Sud-Chemie, Inc. v. Multisorb Technologies, Inc.*, 2007 Lexis 66507 (W.D.Ky. 2007).

137. *Id.* at 13, quoting *Anderson’s-Black Rock*, *supra* note 6.

“together in an ‘unexpected and fruitful manner’” to avoid obviousness.¹³⁸
The claimed invention was found obvious.¹³⁹

Conclusion

KSR significantly changed the way obviousness is analyzed. The requirement that a teaching, suggestion, or motivation to combine must be expressly found in the prior art was rejected. The U.S. Supreme Court suggested that predictability may inform an obviousness analysis, and that common sense is key. The full effect of *KSR* will be ascertained as it is applied by lower courts. That said, it appears *KSR* shifted the obviousness analysis in favor of the accused infringer.

Notwithstanding the rejection of the TSM test, an identification of a motivation to combine references probably still is required, and may be found in areas not traditionally considered, such as improved marketability. The predictability of the success of a combination likely will evolve as a strong factor favoring obviousness. Evidence teaching away from a combination likely will remain a strong factor favoring nonobviousness. Synergy likely will not be required to show nonobviousness.

Notes

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138. *Id.*, quoting *Adams*, *supra* note 46.

139. *Id.* at 16.