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# NON-OBVIOUSNESS: THE FULCRUM OF COMBINATION PATENT VALIDITY

## INTRODUCTION

Current patent law requires an inventor to demonstrate an invention is novel,<sup>1</sup> useful,<sup>2</sup> and non-obvious<sup>3</sup> for issuance of a valid patent.<sup>4</sup> Assuming the elements of utility<sup>5</sup> and novelty<sup>6</sup> are satisfied for the “combination patent”<sup>7</sup> at issue, the validity of the combination patent claim will teeter on the fulcrum of the non-obviousness doctrine.

In *KSR International Co. v. Teleflex Inc.*,<sup>8</sup> the United States Supreme Court held that inventors who apply for combination patents must satisfy a two-pronged test for non-obviousness to obtain a valid combination patent.<sup>9</sup> The first prong merges two Supreme Court tests: (1) the original “synergy” test,<sup>10</sup> where issuance of a combination patent is prohibited if a court or patent examiner determines the claimed subject matter was objectively obvious to a person of ordinary skill in the pertinent art;<sup>11</sup> and (2) the *Graham* test,<sup>12</sup> examining relevant secondary factors of obviousness. The second prong is the “teaching, suggestion, or motivation” (TSM) test<sup>13</sup> developed by the Court of Customs and Patent Appeals<sup>14</sup> as a soft standard to provide insight into patent claims.<sup>15</sup> In the context of combination patents, this dual-pronged analysis for non-obviousness provides a broad approach to patent validity. Overall, the *Teleflex* Court established a synthesized test that will affect patent law in legal, social, and economic ways.

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1. Tamir Packin, *A New Test for Obviousness in Combination Patents: Economic Synergy*, 28 CARDOZO L. REV. 957, 958 (2006); see also 35 U.S.C.A. § 101 (2007) (stating “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent . . .”).

2. Packin, *supra* note 1, at 958, n.10 (stating the inventor must prove the invention “is new and that he invented it before anyone else”); see also 35 U.S.C.A. § 102 (2007).

3. See 35 U.S.C.A. § 103 (2007).

4. Packin, *supra* note 1, at 964 (citing 35 U.S.C.A. §§ 101-03 (2007)).

5. *Id.* at 959 n.12 (stating the three part test to prove the utility element).

6. *Id.* at 959 n.13 (stating combination patents by definition are novel and therefore satisfy the novelty element).

7. See BLACK’S LAW DICTIONARY 1157 (8th ed. 2004) (defining a combination patent as a “patent granted for an invention that unites existing components in a novel way”).

8. 127 S. Ct. 1727 (2007).

9. See *id.* at 1734.

10. See *infra* Part I.B.1 for a discussion of the Court’s synergy test.

11. See *Teleflex*, 127 S. Ct. at 1734.

12. See discussion *infra* Part I.B.2.

13. See discussion *infra* Part I.B.3.

14. See *infra* p. 491 and note 69 (stating the Court of Customs and Patent Appeals merged with the United States Court of Claims in 1982 to form the United States Court of Appeals for the Federal Circuit).

15. See *Teleflex*, 127 S. Ct. at 1734.

Part I of this comment will examine the development of the non-obviousness doctrine by Congress and the courts. Part II will summarize the facts of *Teleflex* and the Supreme Court's holding. Part III will first argue that, on its face, *Teleflex* clarified the analysis for combination patent issuance. Additionally, it will argue that the Court's emphasis on a broad non-obviousness standard actually will produce legal, social, and economic benefits, along with some negative impacts on small businesses and independent innovators. However, further congressional legislation is necessary to streamline non-obviousness analysis. Accordingly, Part IV suggests Congress should intervene to clarify the non-obviousness analysis because this determination involves a policy discussion more appropriately suited for Congress. Finally, this comment concludes that the Court's interpretation of the non-obviousness doctrine will promote innovation in combination patents while rewarding worthy inventors with exclusive patent rights, but this policy decision should be addressed by Congress, not the Court.

## I. THE RISE OF THE NON-OBVIOUSNESS DOCTRINE

Fundamentally, the thrust of the non-obviousness doctrine is an economic policy striking a balance between encouraging innovation and protecting the public from monopolistic patent rights.<sup>16</sup> Throughout U.S. patent law history, the non-obviousness requirement evolved slowly, reflecting uneasiness in general judicial application.<sup>17</sup> In a similar vein, determining non-obviousness for combination patents is particularly problematic because such patents involve combining existing elements, or "prior art,"<sup>18</sup> to form a novel invention.<sup>19</sup> As background, the following two sections will provide the legislative history and the judicial interpretation of the non-obviousness doctrine.

### A. Legislative History

Under its explicit power articulated in the Patent Clause of the U.S. Constitution,<sup>20</sup> Congress historically passed patent legislation to promote innovation, while simultaneously attempting to limit the grant of patent rights to new and useful inventions worthy of the "monopolies [that] produce more embarrassment than advantage to society."<sup>21</sup> Although the well established patentability elements historically included novelty and

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16. Packin, *supra* note 1, at 962-67.

17. *Id.* at 963 n.43.

18. *Id.* at 957 n.2 (defining prior art as "[a]n invention that is already known"); see also BLACK'S LAW DICTIONARY, *supra* note 7, at 119 (defining prior art as "knowledge . . . that is available . . . at a given time to a person of ordinary skill in [the] art . . .").

19. 35 U.S.C.A. § 103 (2007).

20. U.S. CONST. art. I, § 8, cl. 1, 8 (stating "Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries").

21. Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), in 13 THE WRITINGS OF THOMAS JEFFERSON, 326, 334 (Andrew A. Lipscomb et al. eds., 1903).

utility,<sup>22</sup> U.S. statutory patent law did not formally address obviousness until 1952.<sup>23</sup> In the absence of statutory guidance, the Supreme Court interpreted the non-obviousness doctrine in case law.<sup>24</sup> The Court most plainly stated the “long discussed”<sup>25</sup> non-obviousness standard in *Hotchkiss v. Greenwood*.<sup>26</sup>

In *Hotchkiss*, the plaintiffs held a patent for metallic knobs and sued “the defendants for the alleged infringement of a patent for a new and useful improvement in making door and other knobs of all kinds of clay . . . and of porcelain[,]” instead of metal.<sup>27</sup> The Court explained that,

[n]o one will pretend that a machine, made, in whole or in part, of materials better adapted to the purpose for which it is used than the materials of which the old one is constructed, and for that reason better and cheaper, can be distinguished from the old one; or, in the sense of the patent law, can entitle the manufacturer to a patent.<sup>28</sup>

Simply, the Court held that merely substituting the material of a product is obvious, and therefore not patentable.

For over a century, courts tested the validity of patent claims based on congressional statutes requiring novelty and utility<sup>29</sup> and the third judicially created non-obviousness standard.<sup>30</sup> In *Cuno Engineering Corp. v. Automatic Devices Corp.*,<sup>31</sup> the Court stated “[t]he principle of the *Hotchkiss* case applies to the adaptation or combination of old or well known devices for new uses.”<sup>32</sup> Further, the Court held that “the new device, however useful it may be, must reveal the flash of creative genius not merely the skill of the calling.”<sup>33</sup>

Under the flash of creative genius test, patents were not granted for new inventions “if the ‘result claimed as new is the same in character as the original result[,]’ even though the new result had not before been contemplated.”<sup>34</sup> As the Court had done almost one hundred years prior, it interpreted the non-obviousness doctrine in the absence of legislative action. Eventually, Congress passed two statutes that included provi-

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22. See Christopher A. Harkins, *Fending Off Paper Patents and Patent Trolls: A Novel “Cold Fusion” Defense Because Changing Times Demand It*, 17 ALB. L.J. SCI. & TECH. 407, 419-22 (2007).

23. See John H. Barton, *Non-Obviousness*, 43 IDEA 475, 476 (2003).

24. *Id.*

25. *Id.*

26. 52 U.S. (11 How.) 248 (1850).

27. *Id.* at 264.

28. *Id.* at 266.

29. See Harkins, *supra* note 22, at 419-22.

30. See *id.*

31. 314 U.S. 84 (1941).

32. *Id.* at 91.

33. *Id.*

34. *Id.* (citations and internal quotation marks omitted).

sions for non-obviousness and that remained the primary statutory authority of modern patent law.<sup>35</sup>

### 1. The Patent Act of 1952<sup>36</sup>

In the late 1940s, patent law reformers concerned with the strict flash of creative genius test put pressure on Congress to update U.S. patent law.<sup>37</sup> To remedy this concern, Congress codified the Supreme Court's *Hotchkiss* standard for non-obviousness<sup>38</sup> in the Patent Act of 1952.<sup>39</sup> This statute requires all inventors applying for a patent to prove their invention was a non-obvious advance over the prior art to obtain a valid patent.<sup>40</sup> Thus, as a policy matter, Congress superseded the flash of creative genius test with a statutory non-obviousness element.

### 2. 35 U.S.C. § 103 (1966)<sup>41</sup>

In 1966, Congress passed Title 35 of the United States Code, requiring "an applicant to show that his [or her] invention is useful, novel, and non-obvious in order to obtain a patent."<sup>42</sup> With respect to obviousness, 35 U.S.C. § 103 provides that an inventor seeking a patent must prove a person having ordinary skill in the art would not find the invention obvious in light of the prior art.<sup>43</sup> Therefore, § 103 bars patent issuance 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."<sup>44</sup>

### 3. The Patent Reform Act of 2007<sup>45</sup>

Notably, on April 18, 2007, Congress introduced "patent reform legislation in the 'Patent Reform Act of 2007.' If signed into law, the legislation would bring the biggest, most sweeping changes to U.S. patent law in over 50 years."<sup>46</sup> However, "early reports suggest that the Patent Reform Act of 2007 is hitting some snags and may not pass without amendments to or deletions of certain sections . . . ."<sup>47</sup>

35. See *infra* Parts I.A.1 and I.A.2 for a brief discussion of both current congressional statutes.

36. Patent (Bryson) Act of 1952, Pub. L. No. 82-593, § 10, 66 Stat. 792 (codified as amended at 35 U.S.C.A. § 103 (2007)).

37. Barton, *supra* note 23, at 476 (citing *Cuno*, 314 U.S. at 91).

38. *Hotchkiss v. Greenwood*, 52 U.S. (11 How.) 248 (1850).

39. Pub. L. No. 82-593, 66 Stat. 792.

40. Packin, *supra* note 1, at 964 (citing Pub. L. No. 82-593, 66 Stat. 792).

41. 35 U.S.C.A. § 103.

42. Packin, *supra* note 1, at 964.

43. 35 U.S.C.A. § 103.

44. *Id.*

45. Patent Reform Act of 2007, H.R. 1908 and S. 1145, 110th Cong. (1st Sess. 2007).

46. Harkins, *supra* note 22, at 422.

47. *Id.* at 423.

Regardless, the proposed legislation does not address any potential issues of non-obviousness arising out of *Teleflex* because the legislation was drafted prior to the *Teleflex* decision. The proposed Patent Reform Act of 2007 lists non-obviousness as a condition for patentability and provides for the following amendment to 35 U.S.C. § 103:

A patent for a claimed invention may not be obtained though the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.<sup>48</sup>

However, in this proposed amendment, Congress did not address any specific test for the judicial application of non-obviousness. As this comment will discuss in Part IV, Congress has an opportunity with the Patent Reform Act of 2007 to clarify the broad non-obviousness standard set forth by the Court.

#### *B. Judicial Interpretation of Patent Law Statutes and Creation of Non-Obviousness Tests*

Judicial interpretation became an integral part of the non-obviousness doctrine, especially for combination patents. The Supreme Court preserved the authority of *Hotchkiss*<sup>49</sup> even after Congress solidified non-obviousness as a requirement for patent issuance.<sup>50</sup> Specifically, the Court has employed three tests to further define and guide the non-obvious doctrine: (1) the synergy test for all patents; (2) the *Graham* test for combination patents; and (3) the TSM test for combination patents.

##### 1. The Synergy Test<sup>51</sup>

Prior to the Patent Act of 1952,<sup>52</sup> the Supreme Court established the synergy test for combination patents because, by their nature, “the combination of existing elements failed to achieve unusual or surprising consequences as the elements did not perform any additional or different function in the combination than they perform out of it.”<sup>53</sup> The synergy test developed as a special lens to examine the obviousness of combina-

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48. H.R. 1908 § 3(c).

49. *Hotchkiss v. Greenwood*, 52 U.S. (11 How.) 248 (1850).

50. Packin, *supra* note 1, at 968.

51. *Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147, 152-53 (1950) (introducing the synergy test).

52. Patent (Bryson) Act of 1952, Pub. L. No. 82-593, § 10, 66 Stat. 792 (codified as amended at 35 U.S.C.A. § 103 (2007)).

53. Packin, *supra* note 1, at 968 (quoting *Great Atl. & Pac. Tea Co.*, 340 U.S. at 152 (internal quotation marks omitted)).

tion patents.<sup>54</sup> Simply put, the synergy test takes a functional approach to assess patent validity: a combination patent is not obvious if the patent produces “a new or different function.”<sup>55</sup> The Court explained further that under the synergy test, a patent applicant can demonstrate non-obviousness by showing “synergistic effects.”<sup>56</sup>

Following the enactment of § 103, the Court continued to apply and elaborate on the synergy test.<sup>57</sup> The Court expounded that the “functional synergy test presumes invalidity of a combination patent unless there is a synergistic effect of the elements in the combination claim.”<sup>58</sup> Thus, current application of the synergy test requires an examination of each individual element of the combination patent followed by a final examination of the combined invention.<sup>59</sup>

## 2. The *Graham*<sup>60</sup> Test

Fourteen years after Congress enacted 35 U.S.C. § 103, in the *Graham* case, the Court heard an obviousness issue requiring statutory interpretation of § 103.<sup>61</sup> In this seminal decision, the Court interpreted the language of § 103 and established the framework for an objective, factor-based test for obviousness.<sup>62</sup> The Court held:

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 nonobviousness [sic] 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.<sup>63</sup>

The *Graham* test encompasses this factor-based analysis; if the subject matter of the patent is conclusively obvious, the patent claim is invalid.<sup>64</sup>

As a policy matter, the Court reasoned that consideration of these secondary factors was essential to the constitutional foundations of the

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54. *Id.* at 969.

55. *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 60 (1969) (quoting *Lincoln Eng'g Co. v. Stewart-Warner Corp.*, 303 U.S. 545, 549 (1938) (internal quotation marks omitted))

56. *Packin*, *supra* note 1, at 969 (citing *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)).

57. *See, e.g., Sakraida*, 425 U.S. at 282; *Anderson's-Black Rock*, 396 U.S. at 61-63; *United States v. Adams*, 383 U.S. 39, 48, 50-52 (1966).

58. *Packin*, *supra* note 1, at 969 (citing Glynn S. Lunney, Jr., *E-Obviousness*, 7 MICH. TELECOMM. & TECH. L. REV. 363, 379-80 (2001)).

59. *Id.*

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

61. *Id.* at 3.

62. *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1734 (2007).

63. *Graham*, 383 U.S. at 17-18.

64. *Teleflex*, 127 S. Ct. at 1734.

non-obviousness doctrine,<sup>65</sup> namely, promoting “the Progress of Science and useful Arts.”<sup>66</sup> The Court further proclaimed the original legal standards set forth in *Hotchkiss* remained valid, undisturbed precedent bolstered by the *Graham* test.<sup>67</sup> Additionally, the *Graham* test provided “a broad inquiry and invited courts . . . to look at any secondary considerations that would prove instructive.”<sup>68</sup> The latter policy reflects the loosening of the judicial standard for the non-obviousness doctrine.

### 3. The Teaching, Suggestion, or Motivation (“TSM”) Test

In 1982, Congress created the United States Court of Appeals for the Federal Circuit (“Federal Circuit”) to handle patent law cases.<sup>69</sup> The Federal Circuit was created for three purposes: “ending forum-shopping in patent suits, settling differences in patent-law doctrines among the circuits, and allowing a single forum to develop the expertise needed to rule on complex technological questions that arise in patent suits.”<sup>70</sup> “Seeking to resolve the obviousness question with more uniformity and consistency,” the Federal Circuit independently developed the TSM test as a third approach to non-obviousness.<sup>71</sup> The TSM test requires a patent applicant to demonstrate “a teaching, suggestion, or motivation to combine known elements in order to show that the combination is obvious.”<sup>72</sup>

Under this approach, a patent claim is obvious when “some motivation or suggestion to combine the prior art teachings’ can be found in the prior art, the nature of the problem, or the knowledge of a person having ordinary skill in the art.”<sup>73</sup> This test is useful 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.”<sup>74</sup>

In summary, Congress passed two statutes that currently control patent claims, the Patent Act of 1952 and 35 U.S.C. § 103. Both statutes require evidence of non-obviousness for patent issuance. In addition, Congress recently proposed the Patent Reform Act of 2007 to further

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65. Barton, *supra* note 23, at 477.

66. U.S. CONST. art. I, § 8, cl. 8.

67. Packin, *supra* note 1, at 968.

68. *Teleflex*, 127 S. Ct. at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966)).

69. See BLACK’S LAW DICTIONARY 1570 (8th ed. 2004) (defining the Federal Circuit as “[a]n intermediate-level appellate court with jurisdiction to hear appeals in patent cases . . . . The court originated in the 1982 merger of the Court of Customs and Patent Appeals and the U.S. Court of Claims . . .”).

70. *Id.*

71. *Teleflex*, 127 S. Ct. at 1734.

72. *Id.* at 1741. The TSM test was created by the Court of Customs and Patent Appeals to provide helpful insight to combination patents. *Id.*; see also *Application of Bergel*, 48 C.C.P.A. 1102, 956-57 (1961) (holding that a specific chemotherapy compound is patentable because a prior suggestion that it may be possible to combine known compounds to inhibit tumor growth did not also suggest the desirability of combining those known compounds.).

73. *Teleflex*, 127 S. Ct. at 1734 (quoting *Al-Site Corp. v. VSI Int’l, Inc.*, 174 F.3d 1308, 1323-24 (Fed. Cir. 1999)).

74. *Id.* at 1741.



reform modern patent law, but the new legislation does not address the appropriate standard for non-obviousness analysis. Further, the judiciary has independently developed three analytical tests for the non-obviousness element: the synergy test, the *Graham* test, and the TSM test. With a basic understanding of the legislative and judicial history of the non-obviousness doctrine, this comment will shift its focus to the landmark *Teleflex* case.

## II. *KSR INTERNATIONAL CO. v. TELEFLEX INC.*

In *KSR International Co. v. Teleflex Inc.*, the Supreme Court unanimously rejected the Federal Circuit's rigid application of the TSM test for obviousness,<sup>75</sup> and reaffirmed the historical pedigree and current applicability of its broader approach to obviousness.<sup>76</sup>

### A. Facts

In 1999, petitioner KSR International Company ("KSR") designed and patented an adjustable accelerator pedal system for automobiles with cable-actuated throttles.<sup>77</sup> In 2001, Respondent Teleflex Incorporated ("Teleflex"), a competitor, obtained the exclusive license to the Engelgau combination patent,<sup>78</sup> describing an adjustable accelerator pedal system for automobiles with electronically-actuated throttles, including an electronic sensor fixed to the pivot of the pedal.<sup>79</sup> However, in 2000, to meet growing industry demands, KSR modified its design by adding a modular sensor to its adjustable pedal system for compatibility with vehicles using computer-controlled throttles.<sup>80</sup>

Following KSR's modification and subsequent refusal to enter into a royalty agreement, Teleflex sued KSR for infringing the Engelgau patent.<sup>81</sup> In a motion for summary judgment, KSR argued that the Engelgau combination patent was invalid because the design was obvious "in light of the prior art in existence when the claimed subject matter was invented."<sup>82</sup> To determine the validity of the Engelgau patent, the United States District Court for the Eastern District of Michigan applied the *Graham* framework and the TSM test.<sup>83</sup> After finding KSR satisfied both tests, the district court granted summary judgment in favor of KSR, holding that the Engelgau combination patent was obvious.<sup>84</sup>

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75. *Id.* at 1739.

76. *See id.* at 1739-41.

77. U.S. Patent No. 6,151,976 (filed July 16, 1999).

78. U.S. Patent No. 6,237,565 (filed Aug. 22, 2000).

79. *Teleflex*, 127 S. Ct. at 1736-37.

80. *Id.* at 1735-36.

81. *Id.* at 1737.

82. *Id.* at 1737-38.

83. *Teleflex, Inc. v. KSR Int'l Co.*, 298 F. Supp. 2d 581, 587-96 (E.D. Mich. 2003), *vacated and remanded*, 119 F. App'x 282 (Fed. Cir. 2005), *rev'd*, 127 S. Ct. 1727 (2007).

84. *Id.* at 596.

On appeal, the Federal Circuit reversed the district court decision and held that the trial court did not apply a strict enough application of the TSM test.<sup>85</sup> Departing from Supreme Court precedent, the Federal Circuit took a narrow view of obviousness, reasoning “that courts and patent examiners should look only to the problem the patentee was trying to solve.”<sup>86</sup> The Federal Circuit further held that expert testimony as to non-obviousness raised genuine issues of material fact that precluded summary judgment.<sup>87</sup> The Supreme Court granted certiorari.<sup>88</sup>

### *B. The Supreme Court's Holding*

In a unanimous opinion written by Justice Kennedy, the Supreme Court reversed the Federal Circuit.<sup>89</sup> The Court identified four errors in the Federal Circuit's strict TSM analysis.<sup>90</sup> First, the Court held the “particular motivation [or] the avowed purpose of the patentee” does not control, rather “the objective reach of the claim” or “whether the combination was obvious to a person with ordinary skill in the art” controls.<sup>91</sup> Second, it held the Federal Circuit was incorrect in assuming “a person of ordinary skill attempting to solve a problem” will utilize only certain elements of the prior art.<sup>92</sup> Moreover, the Court stated a person of ordinary skill is creative, fitting “the teachings of multiple patents together like pieces of a puzzle.”<sup>93</sup>

Third, the Court held the Federal Circuit erred in concluding “a patent claim cannot be proved obvious merely by showing that the combination of elements was ‘obvious to try.’”<sup>94</sup> Instead, the Court explained that “a person of ordinary skill has good reason to pursue the known options within his or her technical grasp” when the market applies pressure for new designs.<sup>95</sup> Fourth, the Court held the Federal Circuit erred in arguing that courts and patent examiners risk “falling prey to hindsight bias.”<sup>96</sup> Although the Supreme Court recognized that hindsight bias is a problem, the Court reasoned that strict “preventative rules that deny fact-

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85. *Teleflex*, 127 S. Ct. at 1738; *see also* *Teleflex, Inc. v. KSR Int'l Co.*, 119 F. App'x 282, 288 (Fed. Cir. 2005), *rev'd*, 127 S. Ct. 1727 (2006).

86. *Teleflex*, 127 S. Ct. at 1742 (citing *KSR*, 119 F. App'x at 288).

87. *KSR*, 119 F. App'x at 289-90.

88. *KSR Int'l Co. v. Teleflex, Inc.*, 126 S. Ct. 2965, 2966 (2006).

89. *Teleflex*, 127 S. Ct. at 1735.

90. *Id.* at 1741-42. The Court also noted that since the decision in the instant matter, the Federal Circuit has adopted a broader conception of the TSM test. *Id.* at 1743; *see, e.g.*, *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1367 (2006) (“Our suggestion test is in actuality quite flexible . . . .”); *Alza Corp. v. Mylan Labs., Inc.*, 464 F.3d 1286, 1291 (2006) (“There is flexibility in our obviousness jurisprudence . . . .”).

91. *Teleflex*, 127 S. Ct. at 1741-42.

92. *Id.* at 1742.

93. *Id.*

94. *Id.* (quoting *Teleflex, Inc. v. KSR Int'l Co.*, 119 F. App'x 282, 289 (Fed. Cir. 2005), *rev'd*, 127 S. Ct. 1727 (2006)).

95. *Id.*

96. *Id.*

finders recourse to common sense . . . are neither necessary under our case law nor consistent with it."<sup>97</sup>

Contemporaneously, the Court reinforced its principal reason for disallowing combination patent claims 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."<sup>98</sup> The Court held the Engelgau patent claim was invalid as obvious because "mounting a modular sensor on a fixed pivot point . . . was a design step well within the grasp of a person of ordinary skill in the relevant art."<sup>99</sup>

Based on precedent addressing non-obvious combination patent claims,<sup>100</sup> the Court framed the appropriate issue as "whether the improvement is more than the predictable use of prior art elements according to their established functions."<sup>101</sup> The Court reasoned that "[i]f a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability."<sup>102</sup> In this case, the Court noted the pedal systems market created an increased demand to convert mechanical pedals to electronic pedals, and the prior art described many methods of conversion.<sup>103</sup> Furthermore, the Court held KSR's combination of established patent elements sufficiently supported the finding of obviousness because the claim resulted from common sense and ordinary skill, not innovation.<sup>104</sup>

Finally, the Court expounded that summary judgment was the appropriate procedural device and held that "[t]he ultimate judgment of obviousness is a legal determination."<sup>105</sup> This holding refuted the Federal Circuit's separate argument for reversing the district court on the grounds that summary judgment was inappropriate based on expert testimony.<sup>106</sup> The Federal Circuit's judgment reversing the summary judgment of invalidity was itself reversed by the Supreme Court, and the case was remanded for further proceedings.<sup>107</sup>

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97. *Id.* at 1742-43.

98. *Id.* at 1739 (internal quotation marks omitted) (quoting *Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147, 152-53 (1950)).

99. *Id.* at 1746.

100. *See, e.g., Sakraida v. Ag Pro, Inc.*, 425 U.S. 273 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969); *United States v. Adams*, 383 U.S. 39 (1966).

101. *Teleflex*, 127 S. Ct. at 1740.

102. *Id.*

103. *Id.* at 1744

104. *See id.* at 1743-46.

105. *Id.* at 1745-46 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966)).

106. *Id.* (noting that expert testimony should certainly be considered regarding questions of fact, but the final legal judgment is that of the court).

107. *Id.* at 1746.

In the wake of *Teleflex*, the precise impact of the Court's broad non-obviousness standard is unknown. The remainder of this comment will explore the potential legal, social, and economic effects of the *Teleflex* decision. Also, Part III will explain a new test as an alternative to the *Teleflex* standard.

### III. ANALYSIS

On the surface, the *Teleflex* Court established a defined analysis for the non-obviousness doctrine.<sup>108</sup> The resulting two-pronged test for non-obviousness combined statutes and judicial tests into one comprehensive analysis. In the context of combination patents, the decision to reverse the Federal Circuit was proper because it reconciled the inconsistency of a strict test for non-obviousness, while fostering "new works based on instinct, simple logic, ordinary inferences, extraordinary ideas, and sometimes even genius."<sup>109</sup> The following analysis discusses the potential beneficial impact of the recent *Teleflex* decision and the emerging broad non-obviousness doctrine, despite some negative effects on small businesses and independent innovators.

#### A. The Legal Implications of the Supreme Court's Decision

The Supreme Court's broad non-obviousness standard is likely to have ramifications on patent law. Most importantly, the *Teleflex* decision will alter patent law by decreasing the overall number of patents issued. Additionally, the decision demonstrates the Court's reverence for *stare decisis* over the independent judgment of the Federal Circuit.

##### 1. Decreased Patent Issuance

The first beneficial legal implication of the *Teleflex* decision is administrative. "The decision lowers the bar for proving obviousness. Parties charged with infringement will have a stronger legal basis for invalidating patents, particularly on summary judgment."<sup>110</sup> Logically, if the Supreme Court's broad test makes it more difficult to demonstrate the element of non-obviousness, then fewer patents will be issued and more will be held invalid. *Teleflex* "promises to create a stir in the industry by making it easier for defendants to prove invalidity, and thereby suggesting a transition of making it harder obtain (and preserve the validity of) patents based on the combination of known elements."<sup>111</sup>

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108. *Id.*

109. *Id.*

110. Irfan A. Lateef & Joshua Stowell, *Special Feature: A Supreme End to Patent Trolls?*, 49 ORANGE COUNTY LAW. 18, 22 (2007).

111. Harkins, *supra* note 22, at 467.

The new test also advances the federal policy of promoting innovation and rewarding true innovators with monopolistic patent rights.<sup>112</sup> A higher non-obviousness standard, coupled with the expenses of patent applications, will create incentives for inventors to make genuine inventions and deter applications for less innovative inventions. Furthermore, “the decision decreases the impact of threatened patent suits, especially when weak patents are at issue.”<sup>113</sup>

In contrast, the Federal Circuit’s rigid TSM approach “ignores exogenous economic or technological changes, which make something obvious suddenly valuable.”<sup>114</sup> A lower standard for non-obviousness would create an incentive for inventors “to apply for many ‘obvious’ combinations, which increases the economic burden that the system imposes on a free market.”<sup>115</sup> On the other hand, the new higher standard may produce excess litigation between parties fighting over the non-obviousness element.<sup>116</sup> Ultimately, the Supreme Court’s standard articulated in *Teleflex* will encourage innovation by rewarding inventors who are genuinely original.

## 2. *Stare Decisis*

Another beneficial legal impact of the *Teleflex* decision is the victory for *stare decisis*. The Court unanimously refused to deviate from precedent established over one hundred and fifty years ago.<sup>117</sup> Although the concept of non-obviousness and the tests for non-obviousness developed over time,<sup>118</sup> the underlying policies set forth in *Hotchkiss* have not. Grounding its decision in the Constitution, the Supreme Court’s holding in *Teleflex* reflects the underlying policy for the promotion and progression of useful arts.<sup>119</sup>

Although the Supreme Court adhered to precedent, the Federal Circuit has been critical of the Supreme Court’s synergy test.<sup>120</sup> Presumably relying on its expertise in patent law, the Federal Circuit applied a strict TSM test because the synergy test invites hindsight bias.<sup>121</sup> But critics suggest the Federal Circuit’s strict approach “essentially reduce[d] the

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112. *Id.* at 468 (“Buoyed by policies of promoting innovation and the progress of science on the one hand, without the high price paid to legitimate competition on the other, one senses a return to the notion that an inventor must actually have invented something before being rewarded a patent monopoly[.]”).

113. Lateef & Stowell, *supra* note 110, at 22.

114. Packin, *supra* note 1, at 977.

115. *Id.*

116. See *infra* Part III.B.2 for a discussion of the cost barriers for small businesses.

117. See *Hotchkiss v. Greenwood*, 52 U.S. (11 How.) 248 (1850).

118. See *supra* Part I for discussion of the rise of non-obviousness.

119. *KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1746 (2007).

120. Packin, *supra* note 1, at 979 (“The Federal Circuit has criticized the Supreme Court’s synergy test because it invites . . . the possibility that even though an invention is non-obvious and therefore patentable, when viewed in retrospect in light of the prior art, a person of ordinary skill in the art may use hindsight in determining that the invention is obvious.”).

121. *Id.* at 980.

'level of ordinary skill' to nothing . . . [and] assume[d] no common knowledge."<sup>122</sup> In the end, the Supreme Court's application of the synergy test "has been said to be better suited for defining obviousness in combination patents."<sup>123</sup>

However, the Federal Circuit's departure from Supreme Court precedent implies a serious need for reform in patent law.<sup>124</sup> Since the Supreme Court's reversal, the Federal Circuit has moved away from a rigid TSM test because the strict application "sets a low standard for patentability and encourages patenting rather than innovation."<sup>125</sup> Ultimately, the Federal Circuit's deviation prior to the Court's *Teleflex* decision does little to hinder the victory of *stare decisis*, but it does provide an educated alternative for where the bar for non-obviousness should be set.

Remarkably, the Federal Circuit is not alone in criticizing the Supreme Court for setting a "higher bar for combination patents than for other types of patents."<sup>126</sup> The Federal Circuit applied a stricter application of the TSM test to broaden the non-obviousness analysis to all types of patents, thereby providing consistency.<sup>127</sup> Although the Court's decision abrogates the previous Federal Circuit test, the competing views of each court necessitate clarification by Congress regarding the appropriateness of the Supreme Court's new standard for non-obviousness.

### *B. The Social and Economic Implications of the Teleflex Decision*

Only future studies will determine the long term social and economic impact of the *Teleflex* decision.<sup>128</sup> However, the underlying constitutional policies behind the Supreme Court's holding should shape the impact of its decision, particularly in the areas of innovation and monopoly, and barriers to small businesses.

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122. *Id.* (internal quotations omitted).

123. *Id.* (citing Lunney, *supra* note 58, at 390).

124. *Id.* at 979-80.

125. *Id.* at 977; *see also* Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd., 492 F.3d 1350, 1363 (Fed. Cir. 2007) (applying the Supreme Court's broad *Teleflex* standard and holding the patent at issue invalid for failing to overcome a prima facie case for obviousness).

126. Packin, *supra* note 1, at 979; *see also* Jungersen v. Ostby & Barton Co., 335 U.S. 560, 572 (1949) (Jackson, J., dissenting) (arguing the non-obviousness standard is too high and declaring "the only patent that is valid is one which the Court has not been able to get its hands on"); Homer J. Schneider, *Non-Obviousness, the Supreme Court, and the Prospects for Stability*, 60 J. PAT. OFF. SOC'Y 304, 318 (1978) (stating application "of the non-obviousness test is muddled, not clarified, by unexplained resort to . . . searches for 'synergism'").

127. Packin, *supra* note 1, at 976.

128. For the purposes of this comment, any foreign social and economic implications will not be addressed, but should be topic for another scholarly comment. Recently, a "bipartisan effort in Congress to overhaul the patent system . . . is hitting resistance because of concerns the U.S. might be exposed to greater foreign competition." Greg Hitt, *Patent System's Revamp Hits Wall*, WALL ST. J. (Wash., D.C.), Aug. 27, 2007, at A3.

## 1. Innovation and Monopoly

The fine balance of promoting innovation and protecting the right to profit from invention underscores all of patent law.<sup>129</sup> In *Teleflex*, the Supreme Court found an equilibrium between these two competing goals by rewarding genuine innovations with patents and denying patents for uncreative inventors who fail the non-obviousness test.<sup>130</sup> Although these policies are fundamentally different, the requirement for patent validity provides a filter for truly innovative patents.

## 2. Barriers for Small Businesses

Notably, the high costs accompanying compliance with U.S. patent law perpetuate a sweeping negative impact on small businesses and independent inventors.<sup>131</sup> The largest barrier for small businesses and independent inventors is the high litigation costs necessary to enforce patents against large corporations.<sup>132</sup> Also, “less-tangible costs related to patent protection”<sup>133</sup> create further barriers for small entities, including high filing costs,<sup>134</sup> patent insurance costs,<sup>135</sup> drafting and prosecution-related costs,<sup>136</sup> and opportunity costs.<sup>137</sup> In totality, these additional costs average a minimum total of \$22,785.00 plus unrecoverable, intangible costs.<sup>138</sup> Thus, these costs minimize the economic incentives for innovation by small businesses and inventors.

Although the holding in *Teleflex* does not address these small business concerns, Congress should arguably reform patent laws to provide additional protection for the small entity innovators. The strongest area of patent law demanding reform for small businesses is litigation.<sup>139</sup> 35 U.S.C. § 282 addresses challenges to patent validity, stating that “a patent shall be presumed valid.”<sup>140</sup> First, Congress can expand § 282 to include reasonable expert witness fees because the statute already provides for “reasonable attorney fees.”<sup>141</sup> Second, Congress can remove the reduction cap on attorney fees when small entities prevail in patent

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129. See U.S. CONST. art. I, § 8, cl. 1, 8.

130. See *KSR Int'l Co., v. Teleflex Inc.*, 127 S. Ct. 1727, 1743 (2007).

131. See Jeff A. Ronspies, *Does David Need a New Sling? Small Entities Face a Costly Barrier to Patent Protection*, 4 J. MARSHALL REV. INTELL. PROP. L. 184 (2004).

132. *Id.* at 196-99; see also Robert E. Thomas, *Vanquishing Copyright Pirates and Patent Trolls: The Divergent Evolution of Copyright and Patent Laws*, 43 AM. BUS. L.J. 689, 703-06 (2006).

133. Ronspies, *supra* note 131, at 195.

134. *Id.*

135. *Id.* at 199-200.

136. *Id.* at 200-01.

137. *Id.* at 201-02.

138. *Id.* at 195-202; see also AM. INTELL. PROP. L. ASS'N, 2003 REPORT OF THE ECONOMIC SURVEY 22 (2003) (stating the median estimates for costs).

139. Ronspies, *supra* note 131, at 207-11.

140. 35 U.S.C.A. § 282 (2007).

141. Ronspies, *supra* note 131, at 207.

litigation.<sup>142</sup> Third, Congress can mandate small-entity litigants in patent disputes to attend arbitration, rather than pursue costly litigation.<sup>143</sup> Each of these suggestions would help to reduce the costly barriers for small entities, thus encouraging innovation for small businesses and independent inventors. Congress must explore these ideas because they are highly policy based determinations, outside the scope of the Supreme Court's powers.

#### IV. DEMAND FOR CONGRESSIONAL ACTION

Continued judicial definition of combination patent law through case law interpretation is unnecessary. The most appropriate and direct course of action is to call upon Congress to reform the non-obviousness test, rather than to synthesize historic case law under the broad umbrella of the non-obviousness standard. The Court established the broad *Teleflex* analysis for non-obviousness in the absence of any direction from Congress. However, non-obviousness analysis needs further clarification because the determination of non-obviousness involves a policy discussion more appropriately suited for the legislative branch.

One glaring opportunity for Congress to address the appropriateness of the Supreme Court's new test is in the Patent Reform Act of 2007. With the proposed legislation meeting some resistance,<sup>144</sup> Congress can still create a provision choosing to either: (1) codify the new broad *Teleflex* standard; (2) amend or modify the *Teleflex* standard; or (3) create a different standard depending on the outcome of the much needed policy discussion. As a starting point, and based on the previously conflicting views between the Federal Circuit and the Supreme Court, Congress simply needs to have the dialogue to determine the most appropriate analysis for non-obviousness. Then, Congress can decide which option would best serve the needs of patent law.

For an example of an alternative to the Court's test, Tamir Packin has suggested the "economic synergy" test for non-obviousness.<sup>145</sup> Taking a purely economic approach, Congress may consider adopting a variation of the proposed economic synergy test, which provides "that a combination should be found non-obvious if the economic value of the combination as a whole is greater than the economic value of the sum of its parts."<sup>146</sup> This test relies on market demands to set the economic value of inventions. "[T]he new combination cannot simply redistribute . . . in the existing demand curves, but must itself create a new demand . .

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142. *Id.* at 207-08.

143. *Id.* at 210-11.

144. Harkins, *supra* note 22, at 423.

145. Packin, *supra* note 1, at 981-90.

146. *Id.* at 982.



..<sup>147</sup> The social benefit of certain mathematical calculations for value increases the efficiency of the combination patent application process.

As suggested by Pakin, the economic synergy test is superior to the Supreme Court's synergy test in three ways. First, the Court's synergy test assumes "those combinations that do not create a functional synergy are not valuable to society."<sup>148</sup> The economic alternative recognizes that some combinations lacking a functional synergy may still have some utilitarian value.<sup>149</sup> Second, the economic synergy test is inclusive of the Court's approach because "all functionally synergistic combinations will also be economically synergistic and therefore patentable."<sup>150</sup> Finally, the economic synergy test provides economic incentives for "inventors who create functionally simple devices that benefit society" by adding economic value.<sup>151</sup> In response to the criticisms of the Supreme Court's high standard of non-obviousness, the economic synergy test is one conceivable alternative addressing the call for patent reform. However, adopting this test would deviate from Supreme Court precedent requiring an abandonment of the established synergy test.

In sum, Congress must determine the appropriate test for non-obviousness by discussing different policies behind non-obviousness analysis, exploring different options and alternatives to the Court's new test, and deciding the most appropriate analysis. In light of the recent reaffirmation of the synergy test by the *Teleflex* Court, the most appropriate course of action is for Congress to address the appropriate test for non-obviousness. Legislative action would set a definitive statutory test, without forcing the Court to continuously set policy standards.

#### CONCLUSION

In *KSR International Co. v. Teleflex Inc.*,<sup>152</sup> the Supreme Court unanimously established a clear two-pronged test for non-obviousness, an essential element to obtain a combination patent.<sup>153</sup> The broad, high standard incorporates the policies and tests developed cautiously throughout U.S. patent law history.<sup>154</sup> The Court created a standard reflecting the legislative intent of Congress, while simultaneously adhering to precedent.<sup>155</sup> Looking to the future, the Supreme Court's interpretation of the non-obviousness doctrine in *Teleflex* will promote innovation,

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147. *Id.* at 982 n.151; see generally MARK A. GLICK, LARA A. REYMANN & RICHARD HOFFMAN, INTELLECTUAL PROPERTY DAMAGES: GUIDELINES AND ANALYSIS 43-72 (2003).

148. Pakin, *supra* note 1, at 984.

149. *Id.*

150. *Id.* (noting the consistency with the constitutional goal of promoting progress).

151. *Id.* at 986.

152. 127 S. Ct. 1727, 1741-43 (2007).

153. *Id.*

154. See *id.* at 1739-43.

155. See *id.*

while rewarding worthy inventors with exclusive patent rights.<sup>156</sup> Despite these steps forward, other methods remain for effectively addressing the non-obviousness standard, but it would require congressional reform outside of the scope of the judicial branch.

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156. *Id.*

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