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NOTE: SECONDARY CONSIDERATIONS IN NONOBVIOUSNESS ANALYSIS: THE USE OF OBJECTIVE INDICIA FOLLOWING KSR V. TELEFLEX

NAME: Natalie A. Thomas*

BIO: * Copyright © 2011 by Natalie A. Thomas. J.D., 2011, New York University School of Law; Ph.D., 2008, New York University; B.S., 2003, Duke University. For comments on earlier drafts, I thank Professors Herbert Schwartz, Katherine Strandburg, Oren Bar-Gill, and the fellows of the Lederman/Milbank Fellowship in Law and Economics. I would also like to thank the members of the New York University Law Review, especially Brian Lee, David Lin, Chris Kochevar, and Daniel Derby, for their efforts in preparing this Note for publication. Any errors are my own.

HIGHLIGHT: One of the basic requirements for patenting an invention is that the invention be nonobvious. Following the Supreme Court's decision in Graham v. John Deere, secondary considerations - also known as objective indicia of nonobviousness - have been considered when determining whether an invention is nonobvious. Secondary considerations provide tangible evidence of the economic and motivational issues relevant to the nonobviousness of an invention. Types of secondary-considerations evidence include commercial success, long-felt but unmet need, and copying by competitors. For many years, the Federal Circuit's teaching, suggestion, or motivation test often eliminated the need for the court to rely on secondary considerations in the obviousness inquiry. Due to the Federal Circuit's stringent application of this test, the obviousness inquiry was generally resolved by examining the prior art.

In 2007, the Supreme Court decided KSR v. Teleflex, which endorsed a flexible obviousness analysis and rejected the Federal Circuit's strict application of the teaching, suggestion, or motivation test. Following KSR, scholars predicted that secondary-considerations evidence would provide a critical tool for patentees seeking to demonstrate the nonobviousness of an invention. Inspired by that prediction, this Note evaluates how secondary-considerations evidence has been utilized in the first few years post-KSR. It finds that the Federal Circuit has continued to impose stringent relevancy requirements on the use of secondary-considerations evidence, and that it remains difficult for patentees to employ secondary considerations in favor of a nonobviousness conclusion. Specifically, secondary-considerations evidence has not been used with much success outside of pharmaceutical patent cases. More often than not, the Federal Circuit has summarily dismissed secondary-considerations evidence as insufficient in cases involving mechanical arts patents. This Note concludes by suggesting that the Federal Circuit's current practice for using secondary considerations should inform proposals by scholars for industry-specific tailoring of the patent system and patent law's use of secondary considerations, and that the Federal Circuit should continue to engage with secondary-considerations

evidence in order to provide more guidance to lower courts during the post-KSR transition period.

TEXT:
[*2071]

Introduction

To qualify for a patent, an inventor must contribute a novel, useful, and significant technical advance. In other words, the advance must not be obvious or trivial. This requirement seems only fair. The national patent system established under the Constitution contemplates such a quid pro quo: In exchange for disclosing his or her invention to the public, an inventor is rewarded with a temporary, exclusive right. n1 The public does not benefit from the award of a patent right for an obvious discovery, since such an award would remove a clear and evident improvement from the public domain for the patent term. n2

The nonobviousness requirement was first codified in the 1952 Patent Act. n3 Although the nonobviousness requirement was a natural addition to the Patent Act, given the patent system's goal of promoting innovation, courts and the Patent and Trademark Office (PTO) n4 have struggled to create a coherent procedure for determining when a claimed "invention" is in fact nonobvious. Indeed, it is challenging to articulate how anyone might go about determining if a claimed invention is nonobvious.

This obviousness inquiry is significant because millions of dollars may ride on a patent examiner's judgment as to whether a patent should issue and on a judge or jury's determination of whether an issued patent is invalid for obviousness. n5 The inquiry is further complicated **[*2072]** by the fact that it occurs ex post and is often made by a factfinder n6 lacking skill in the art. n7 Technically inexperienced factfinders may allow hindsight to affect the obviousness inquiry. n8 What seems obvious now may not have been obvious at the time of invention.

In order to guide the obviousness inquiry, the Federal Circuit - the court with appellate jurisdiction over patent cases n9 - adopted a teaching, suggestion, or motivation (TSM) test. A proposed invention was obvious if a teaching, suggestion, or motivation in the prior art pointed to the invention. The TSM test was intended to structure the obviousness inquiry, but instead led to instances of patents of questionable validity being upheld. n10 In the 2007 case KSR International v. Teleflex Inc., the Supreme Court rejected the Federal Circuit's rigid application of the TSM test and emphasized that the touchstones of the obviousness inquiry are flexibility and common sense. n11 In the wake of KSR, many predict that it will be easier to prove patents obvious. n12 Decision makers must strike a delicate balance between **[*2073]** ensuring that obvious inventions are not given patent protection and ensuring that an invention that was nonobvious at the time of invention is found nonobvious when later assessed by a court or the patent office.

Patent case law provides for the use of secondary-considerations evidence - also referred to as objective indicia of nonobviousness - to aid the obviousness inquiry. n13 This evidence is considered more judicially cognizable than the highly technical facts frequently involved with patent litigation, as it is generally rooted in nontechnical facts about the invention, such as industry response or commercial success. n14 Following KSR, some scholars have predicted that secondary considerations will be critical to patentees' future efforts in demonstrating that their inventions are nonobvious. n15

This Note examines the state of secondary-considerations evidence in the first few years after KSR. Part I provides an overview of the nonobviousness requirement of patentability, secondary considerations, and the KSR decision. Part II empirically examines the Federal Circuit's treatment of secondary-considerations evidence in the years after KSR and concludes that such evidence has not been used with much success outside of pharmaceutical patent cases. More often than not, courts have summarily dismissed secondary-considerations evidence as insufficient. Part III considers how current use of such evidence should inform proposals for altering the use of secondary considerations. In addition, this

Part contends that the use **[*2074]** of secondary-considerations evidence should be increased to guide the obviousness inquiry with a judicially accessible source of information about the inventive process.

I

The Nonobviousness Requirement, Secondary Considerations, and KSR v. Teleflex

A. The Nonobviousness Requirement

Although not initially included in the patent statute passed by the First Congress in 1790, n16 the nonobviousness requirement is now considered the ultimate threshold for patentability. n17 This requirement is codified in § 103 of the Patent Act:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made. n18

The nonobviousness requirement reserves patent protection for innovative contributions. However, if the threshold for patentability is too high, then researchers will be less likely to pursue socially beneficial research paths. n19 Promoting the optimal level of innovation requires striking the right balance in defining obviousness. Congress attempted to define obviousness in the context of the patent system as that which would have been obvious at the time of the invention to a person having ordinary skill in the art (PHOSITA), replacing the prior focus on "invention." n20

Unfortunately, the statutory codification of the nonobviousness requirement for patentability does not provide a framework for determining **[*2075]** what would have been obvious to a PHOSITA at the time of invention. In Graham v. John Deere Co., the Supreme Court explained how the obviousness analysis under § 103 should be performed. n21 Under Graham, courts apply a fact-based inquiry to determine whether or not the claimed subject matter of a patent is obvious as a matter of law. n22 First, courts must determine the scope and content of the prior art. Second, courts must identify the differences between the prior art and the claims at issue. Third, courts must ascertain the level of ordinary skill in the art. n23 Based on this three-step inquiry, courts may determine the obviousness of the invention at issue. n24 However, Graham also provided a fourth step: the utilization of secondary considerations. The Court explained as follows: "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. As indicia of obviousness or nonobviousness, these inquiries may have relevancy." n25

B. Secondary Considerations

Rather than focusing on the specifics of the technological advance, a secondary-considerations analysis approaches nonobviousness through an examination of "economic and motivational ... issues." n26 Although their weight in the obviousness inquiry is an open question, secondary considerations are most likely termed "secondary" because they "are relevant through a process of inference to the ultimate technical issue of nonobviousness," not because they are of lesser importance. n27 Because secondary considerations do not require a detailed understanding of technology, they can significantly aid judicial assessments of patent validity. In addition, by providing objective **[*2076]** information about

makers' assessments of the obviousness of an invention; n28 decision makers may be prone to such bias once the invention is sitting before them. n29 Following Graham's endorsement of secondary considerations, courts adopted secondary-considerations analysis as a critical part of the nonobviousness inquiry. n30

Many secondary considerations have been proposed by scholars and cited by courts. n31 The most common include commercial success, **[*2077]** long-felt but unmet need, failure of others, and professional approval or skepticism. n32 Generally, secondary-considerations evidence supports a finding of nonobviousness. n33 For example, failure of others may indicate that others attempted to find a solution but failed, suggesting that the successful inventor's discovery truly was nonobvious. n34 Whether all secondary considerations are equally informative, or accurately illuminate the nonobviousness of an invention, is debated. n35 Some scholars criticize the use of any secondary considerations, arguing that they are not objective enough or that they fail to combat hindsight bias. n36 Despite these critiques, the Supreme Court continues to endorse secondary considerations. n37 As post-KSR decision makers have more license than ever to consult secondary-considerations evidence, it is important to understand both how it is used in practice and how its use could be improved. To ground the discussion, the remainder of this Section details some commonly accepted secondary considerations.

Commercial success is the first secondary consideration listed in Graham and also the most commonly invoked. n38 In theory, if a product that is expected to be commercially successful was obvious to invent, then other competitors likely would have already developed **[*2078]** it. n39 In that case, the market for subsequent entrants to achieve commercial success would be depleted. The potential for achieving commercial success is thought to drive inventors to formulate solutions to existing problems to satisfy marketplace demands. If an inventor develops a product that is commercially successful, presumably others recognized the product's potential for commercial success, attempted to develop a solution to the same problem, and failed. n40

Long-felt but unmet need is a closely related and frequently invoked secondary consideration. The underlying rationale for accepting long-felt demand as evidence of nonobviousness partially overlaps with that for accepting evidence of commercial success. n41 An industry's desire for an improvement in technology provides a motivation for invention. n42 Because it can be assumed that a market exists for a product that satisfies a long-felt need, an inventor or businessperson working in the field has an incentive to develop a solution. If the demand for a solution persists over time, despite this potential reward, the solution may be assumed to be nonobvious. Thus, if a patentee can prove that his invention satisfies a long-felt need, the invention is likely nonobvious.

A third secondary consideration is failure of others. n43 If others facing the same state of the art attempted to develop a solution to satisfy a need but failed - while the inventor succeeded - by inference, the solution employed by the inventor must be nonobvious. If the solution were obvious, it is assumed that others working to solve the same problem also would have succeeded.

Professional approval is an additional secondary consideration that can illuminate the viewpoint of a PHOSITA at the time of invention. Contemporaneous statements about an invention may assist a factfinder in determining whether those with ordinary skill in the art would have found the invention obvious. If experts in the field contemporaneously hailed the invention as revolutionary or as answering a long-felt need, a hypothetical PHOSITA would probably have found **[*2079]** the invention nonobvious. n44 Similarly, if competitors or experts in the field had expressed surprise or doubt as to whether the invention was possible, that skepticism may be construed as evidence that the invention was nonobvious. n45

Finally, unexpected results is a frequently invoked secondary consideration. n46 Evidence of unexpected results may provide a reliable indicator of whether an invention is nonobvious because the probable or anticipated result of an experiment is likely to be embodied in an obvious invention. n47 The courts and the PTO are more inclined to accept secondary-considerations evidence of unexpected results in "the less predictable fields, such as chemistry, where minor changes in a product or process may yield substantially different results." n48 Finally, relying on a demonstration of

generally be rewarded." n49

While secondary considerations may offer insights for determining the obviousness of an invention, the evidence must be relevant to the analysis. For example, commercial success might be attributable to appealing packaging or advertising and not to the invention itself. Alternatively, a patentee might have developed the solution to a long-felt but unmet need due to innovations in complementary technology that changed the state of the art. In such a scenario, the change in technology might make what was previously nonobvious to unsuccessful would-be inventors obvious to inventors working in the context of a different state of the art. n50 Similarly, praise by competitors might have been made in order to gain investors' interest in the competitors' work in the same field. Such statements might be self-serving and thus would need to be scrutinized for context and relevancy. To **[*2080]** ensure that secondary considerations are truly informative about the invention at issue, a nexus between the secondary consideration and the invention must be established before the evidence can be considered in the obviousness analysis.

C. KSR v. Teleflex: Increased Flexibility in Assessing Obviousness

In 2007, the Supreme Court issued its opinion in KSR International Co. v. Teleflex Inc. n51 The decision was highly anticipated by the patent law community because the Supreme Court had not addressed the obviousness inquiry in over thirty years. n52 During that time, the Federal Circuit had developed its own tools for executing the obviousness analysis under Graham. KSR provided a chance for the Supreme Court to signal its views on the evolution of the doctrine and to recalibrate the inquiry if necessary.

In an effort to avoid the effects of hindsight bias, the Federal Circuit developed a teaching, suggestion, or motivation test. n53 To find an invention obvious, the TSM test required the identification of a specific teaching, suggestion, or motivation in the prior art to arrive at the invention at issue. For example, to find a patent invalid, a factfinder would have to point to a suggestion in the prior art, perhaps in a published trade article, that component A of an invention might be improved by combining it with component B. If the challenged patent is composed of A and B, then the suggestion in the prior art could be cited to justify finding the patent obvious and invalid. If there was no indication in the prior art that A would benefit from being combined with B, though, or if there was no documented motivation n54 **[*2081]** for the decision to add B to other components, then the patent could be upheld as valid.

The TSM test was developed in order to reduce the likelihood that courts would look back in time and find an invention to be obvious that was in actuality nonobvious at the time of invention. Unfortunately, the Federal Circuit started applying the TSM test in a mechanical fashion, strictly requiring a published article or patent to provide the necessary TSM before a patent could be invalidated for obviousness. n55 As a result, it became harder to prove a patent obvious because explicit teachings, suggestions, or motivations are not always easy to identify, particularly in fields where there is "little discussion of obvious techniques or combinations" or where "market demand, rather than scientific literature, ... drives design trends." n56 This stringent application of the TSM test led to patents of questionable validity being upheld. n57 In KSR, the Court clarified that the Federal Circuit and lower courts should not engage in a rigid obviousness inquiry, rejecting a strict application of the TSM test. n58 Instead, the Supreme Court emphasized that the obviousness inquiry endorsed by its case law is expansive and flexible. n59

The Court acknowledged that the approach condoned in Graham n60 was intended to help provide uniformity and certainty to the obviousness inquiry. But it distinguished these goals from the rigidity introduced by the Federal Circuit by pointing out that Graham was intended to reaffirm a functional approach established by pre-Graham case law. n61 To emphasize the difference, the Court noted that Graham established a broad framework for courts and particularly invited them to consider secondary considerations where **[*2082]** appropriate. n62 KSR establishes that the obviousness inquiry should be more flexible and allow "factfinders recourse to common sense." n63 The factfinder is instructed to take into account the inferences and creative steps that a PHOSITA of ordinary creativity would undertake, as well as relevant secondary considerations, in reaching a conclusion as to obviousness. n64

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