

OBVIOUSNESS AFTER KSR

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KSR Int'l Co. v. Teleflex Inc.

127 S.Ct. 1727 (2007)

- Supreme Court redefined test for obviousness
- Teaching-suggestion-motivation test no longer required
- Emphasis on common sense and the understanding of the skilled artisan

Standard of Obviousness

- *Graham v. John Deere* (1966)
 - First Supreme Court interpretation of § 103
 - Required 3 factual inquiries:
 - Scope and content of prior art
 - Differences between prior art and claims at issue
 - Level of ordinary skill in the pertinent art
- *Federal Circuit*
 - Developed Teaching-Suggestion-Motivation test (“TSM” test)

TSM Test

- “Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention unless there is some teaching or suggestion supporting the combination.” *ACS Hosp. Sys.*
- The “absence of such a suggestion to combine is dispositive in an obviousness determination.” *Gambro Lundia AB v. Baxter Healthcare Corp*

Supreme Court - KSR

- Reversed Federal Circuit
 - Found Obviousness
 - Rejected TSM test as rigid inquiry
 - “We begin by rejecting the rigid approach of the Court of Appeals.”
 - TSM was a “helpful insight” of the CCPA to identify a reason for combining prior art
 - “no necessary inconsistency” between the TSM idea and *Graham*, but TSM cannot become a rigid rule that limits the obviousness inquiry

Supreme Court - KSR

- Predictability is now a factor:
 - “If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.”
 - “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results ...”
 - “... a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.”
- Revives “obvious to try” as a factor in obviousness inquiry

Supreme Court Case

- Flexible instead of rigid approach
- Common sense
 - Mentioned 5 times
 - “Common sense teaches, however, that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.”
 - Person of skill is person of ordinary creativity, not an automaton

Supreme Court Case

- Must determine if there was a reason to combine
 - Teachings of patents
 - Demands of marketplace
 - Knowledge of person of skill in the art
- Examiner / Court must provide explicit reasoning to support obviousness rejection



Initial Reaction

- USPTO Board of Appeals rejects TSM test; emphasizes “obvious to try” and predictability
 - “Trilogy” of cases find obviousness in chemical, electrical, and biotech arts
- USPTO issues post-KSR guidance to examining corps
- Federal Circuit takes a measured approach
 - Continues to consider TSM as “helpful insight”
 - Increased focus on predictability; common sense of skilled artisan

Initial Reaction - PBAI (1)

- *Ex Parte* Smith (Bd. Pat. App. & Int., June 25, 2007)
 - Mechanical; all elements in prior art
 - “Capabilities or functions of the combination were predictable”
 - “combination [not] uniquely challenging or difficult for one of ordinary skill in the art”

Initial Reaction - PBAI (2)

- *Ex Parte Catan* (Bd. Pat. App. & Int., July 23, 2007)
 - Electrical; bio-authentication for credit card account
 - “Appellant failed to demonstrate that the combination of cited references yielded an unexpected result or was beyond the skill of one of skill in the art to combine”

Initial Reaction - PBAI (3)

- *Ex Parte* Kubin (Bd. Pat. App. & Int., May 31, 2007)
 - Biotechnology; nucleic acid sequence, “NAIL”
 - “[t]he skilled artisan would have had reason to try these methodologies with the reasonable expectation that at least one would be successful.”
 - Board refused to require examiner to articulate basis for combination in the references to make *prima facie* case of obviousness.

Initial Reaction - Examination Corps

- USPTO publishes guidelines for post-KSR consideration of obviousness (October 10, 2007)
 - “In determining obviousness, **neither the particular motivation to make the claimed invention nor the problem** the inventor is solving controls. The proper analysis is whether the claimed invention would have been obvious to one of ordinary skill in the art after **consideration of all the facts. Factors other than the disclosures of the cited prior art** may provide a basis for concluding that it would have been obvious to one of ordinary skill in the art to bridge the gap.”

Initial Reaction - Examination Corps

- KSR Guidelines:
 - “The key to supporting any rejection under 35 U.S.C. 103 is the **clear articulation of the reason(s)** why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made **explicit**. The Court quoting In re Kahn stated that “ ‘[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some **articulated reasoning** with some rational underpinning to support the legal conclusion of obviousness.’ ”

Initial Reaction - Examination Corps

- KSR Guidelines: emphasis on rebuttal evidence
 - “. . . If an applicant disagrees with any factual findings by the Office, an effective traverse of a rejection based wholly or partially on such findings must include a reasoned statement explaining why the applicant believes the Office has erred substantively as to the factual findings. **A mere statement or argument that the Office has not established a prima facie case of obviousness or that the Office’s reliance on common knowledge is unsupported by documentary evidence will not be considered** substantively adequate to rebut the rejection or an effective traverse of the rejection under 37 CFR 1.111(b)”

Seven Guideline Rationales:

- ① Combining prior art elements according to known methods to yield predictable results;
- ② Simple substitution of one known element for another to obtain predictable results;
- ③ Use of known technique to improve similar devices (methods, or products) in the same way;
- ④ Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- ⑤ “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- ⑥ Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art;
- ⑦ Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

Initial Reaction - Federal Circuit

- Leapfrog v. Fisher-Price (Fed. Cir. 2007)
 - Children's toy with audio reading function
 - Combination of known toy and new electronics
- Obviousness found based on “common sense”:
 - “An obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not.”

Initial Reaction - Federal Circuit

- Takeda Chemical Industries v. Alphapharm (Fed. Cir. June 28, 2007)
 - Chemical; modification requiring the substitution of a homolog in a different ring position
 - “in cases involving new chemical compounds, it remains necessary to identify some reasons 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.*”
 - TSM test applied as “helpful insight”
 - Rejected “obvious to try” argument
 - Appellant failed to demonstrate that one of ordinary skill would have chosen the prior art compound to modify from the millions of possibilities

Initial Reaction - Federal Circuit

- McNeil-PPC v. Perrigo Co. (Fed. Cir. July 3, 2007)
 - McNeil claims an antacid and famotidine combination, wherein impermeably coated famotidine granules were substituted for uncoated granules
 - Asserts unexpected result:
 - degradation of famotidine went from 25-70% in prior art to 2% in claimed invention
 - Claims found to be obvious
 - Skilled artisan would have been motivated to use coating to mask bad taste, even without knowing of unexpected result of reducing degradation

Initial Reaction - Federal Circuit

- Andersen Corp. v. Pella Corp. (Fed. Cir. July 31, 2007)
 - Anderson claims fine mesh screening for windows that allowed air to move while blocking out insects in effort to obtain less-visible screen
 - Court applies “common sense” analysis:
 - “So the Court considers an insect screen designer, ordinarily skilled in the art, looking for reduced visibility screening. He or she types "screen" into a search engine and is directed to a website. Clicking on the website, the ordinarily skilled insect screen designer reads of, and sees, TWP--a commercially available highly transparent screening material. At this point, the Court is constrained to find it obvious that our ordinarily skilled screen designer would attempt to incorporate this material into a window frame.”

Summary

- Bar for non-obviousness has been raised
 - Combination patents harder to obtain
- “Common sense” and “predictability” now central considerations
 - Increased emphasis on submittal of rebuttal evidence by applicant
- “Obvious to try” is now available argument
 - Discussion of hypothetical problem in background dangerous
- TSM test still available, but not sole test
- Examiners have greater latitude in making obviousness rejections
 - Held to higher standard of providing clearly articulated reasoning

Fast-Forward to January, 2009

BPAI

- Decisions cite KSR for both affirmance and reversal of obviousness rejections
 - Themes:
 - Submission of substantive rebuttal argument and/or rebuttal evidence by applicant
 - Clear articulation of reasoning for combination/modification by Examiner
- Two precedential opinions considering substantive KSR issues since original “trilogy”

BPAl: *Ex parte* Fu

(Bd. Pat. App. & Int., March 31, 2008)(expanded panel)

- Fu claims electrophotography apparatus with specific surfactant to reduce crystallization of charge transport layer material
- Primary reference teaches all elements except specific surfactant (discloses genus)
- Surfactant (GF-300) is commercially available
 - *Advantageous effect not taught*
- Applicant argues Examiner's rejection improperly based on "obvious to try"

BPAI: *Ex parte* Fu (cont'd)

(Bd. Pat. App. & Int., March 31, 2008)(expanded panel)

- Board finds obviousness:
 - “While [the primary reference]'s genus of surfactants is arguably broad, it nevertheless consists of only a finite number of known perfluoroalkyl surfactants that predictably solve the dispersion problem of the charge transport agent into the binder resin. Accordingly, a person having ordinary skill in the art **would have had "good reason to pursue"** the use of GF-300, the claimed surfactant species.”
- “Problem” found in applicant’s specification:
 - “**Appellants' Specification informs one skilled in the relevant art** that "crystallization" is related to the amount of charge transport material that can be dispersed in a binder.”

BPAI: *Ex parte* Whalen

(Bd. Pat. App. & Int., July 23, 2008)

- Claim to a composition capable of embolizing an aneurysm
 - Viscosity above limit shown in prior art
 - Improved effect
- Board considers issue of “optimization”:
 - “While “the discovery of an optimum value of a variable in a known process is normally obvious,” *In re Antonie*, 559 F.2d 618, 620 (CCPA 1977), this is not always the case. One exception to the rule is **where the parameter optimized was not recognized in the prior art as one that would affect the results.**”

BPAI: *Ex parte* Whalen (cont'd)

(Bd. Pat. App. & Int., July 23, 2008)

- Prior art must teach what to optimize
 - “Here, the Examiner has not pointed to any teaching in the cited references, or provided any explanation based on scientific reasoning, that would **support the conclusion that those skilled in the art would have considered it obvious to “optimize” the prior art compositions by increasing their viscosity** to the level recited in the claims. No reason to have done so is apparent to us based on the record. On the contrary, the **references all suggest that low viscosity was a desired property** in embolic compositions.”

BPAI: *Ex parte* Whalen

(Bd. Pat. App. & Int., July 23, 2008)

- Reversal of obviousness rejection based on “teaching away”
 - “[W]hen the prior art teaches away from the claimed solution as presented here [], **obviousness cannot be proven merely by showing that a known composition could have been modified** by routine experimentation or solely on the expectation of success; it must be shown that those of ordinary skill in the art would have had **some apparent reason to modify** the known composition in a way that would result in the claimed composition.”



Board statistics

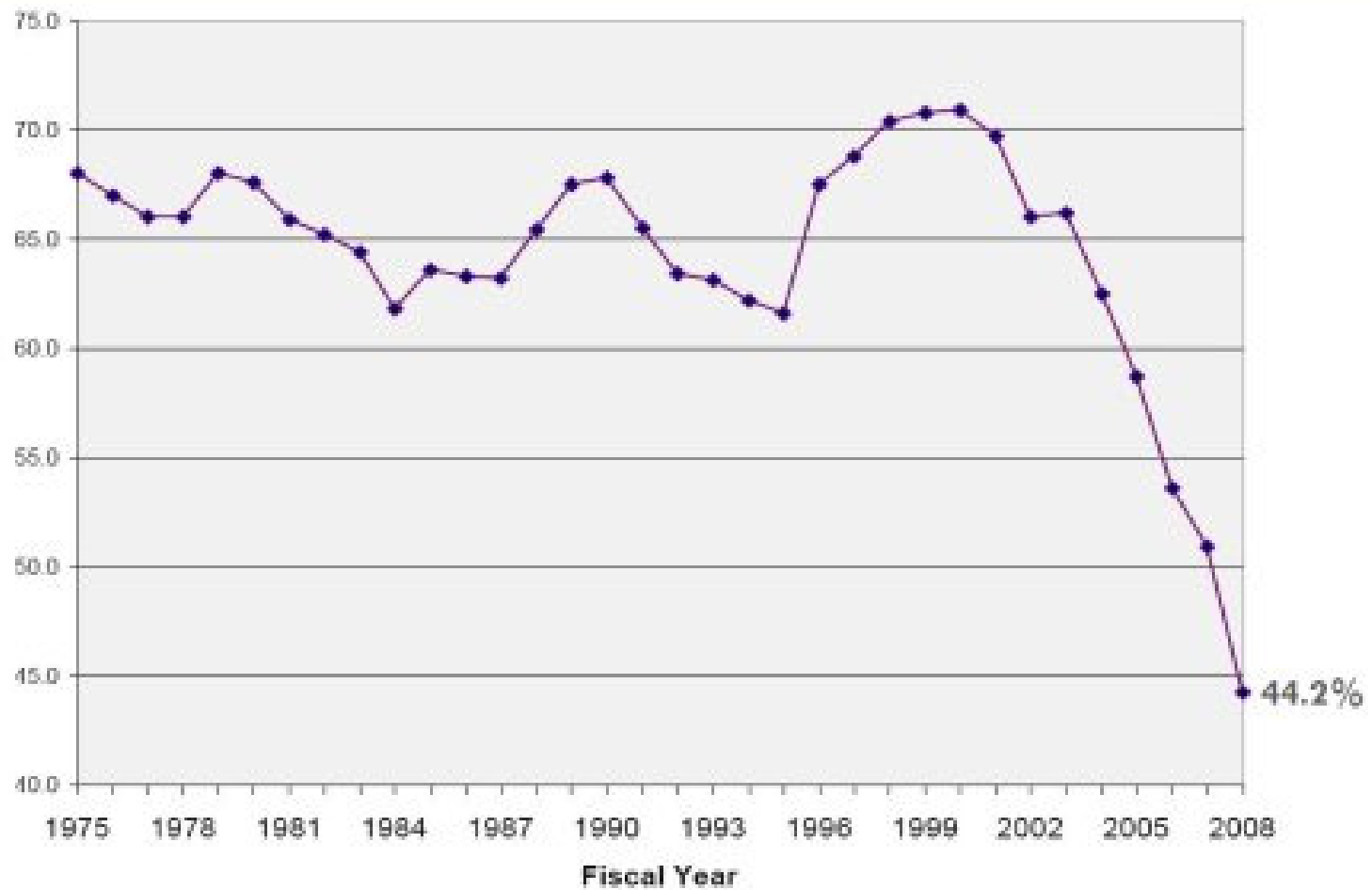
- Reversal rate down from 35% in 2006 to near 20% in 2008
 - Pre-appeal process is a contributing factor
- Number of appeals increased from approx. 3500 in 2006 to over 6000 in 2008
- Appeal backlog 5 times that of 2005

Examining Corps

- The speaker's impressions:
 - Increase in frequency and tenacity of obviousness rejections
 - “Pick and choose” type rejections common
 - Individual elements shown in various references coupled with bare assertion that each element performs its intended/predicted function
 - Examiners tend to merge/combine the seven specified rationales



Allowance Rate



Federal Circuit

- KSR cited in 46 opinions
 - Common sense and predictability central themes
 - Burden on applicant/patentee to present evidence of non-obviousness
- *In re Kubin*
 - Oral argument held January 8th, 2009
 - Appellant argues art (isolation of gene) is “complex and unpredictable”
 - Unpredictability rebuts Board’s application of KSR rubric of when something “obvious to try” is obvious
 - Various amicus briefs filed in support of Appellant

Federal Circuit

- *Friskit, Inc. v. Real Networks, Inc.* (Jan. 12, 2009)
 - Evidence of secondary considerations insufficient:
 - “We have frequently stated that ‘secondary consideration evidence’ such as commercial success, copying, and long-felt need does *not necessarily overcome a strong showing of obviousness, as was made in the present case.*”
 - Evidence submitted was found wanting
 - Insufficient connection of commercial success to claimed invention
 - Evidence of copying and long-felt need insufficient

Conclusion

- Post-KSR law will continue to mature as more decisions are issued by the Federal Circuit
- Additional training and guidance needed for examiners to properly apply KSR guidelines
- Appeal backlog may frustrate timely prosecution of applications
- Statement of hypothetical purpose in background should be avoided
- Evidence of unexpected results important to rebut “predictability”

Thank You!

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