



The Obvious Advantage -- Revisited

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In 2006 I wrote an article entitled "The Obvious Advantage", which appeared in the November 2006 issue of Intellectual Property Today. I wrote the article to address USPTO patent examiners' propensity to follow an improper methodology in determining whether or not patent claims describe obvious combinations of prior art technologies (possibly the most common basis for claim rejections).¹ What I pointed out as being improper about their methodology was that they were simply identifying, as a supposed motivation for a combination, an *advantage* that a prior art combination would have in common with a claimed invention. I referred to this as "shared advantage" reasoning.

In the article I promoted an approach that I'd found to be fairly successful in dealing with shared advantage reasoning: to first explain to an examiner the illogic of relying on a shared advantage as a motivation to combine, and then challenge the examiner to, instead, seek evidence of a motivation to combine in the form of an express teaching or suggestion in the prior art or in knowledge generally available to one of ordinary skill in the art (the teaching-suggestion-motivation or "TSM" test).² Where no explicit motivation could be found I would challenge the

examiner to seek evidence of motivation in "the nature of the problem to be solved, leading inventors to look to references relating to possible solutions to that problem"³ (i.e., the "problem-solution approach"). Rarely would it take more than a single office action response to bring an examiner around to either dropping an obviousness rejection or laying out a *prima facie* case to which I could then respond on its merits.

But then, in April of 2007, the Supreme Court decided *KSR International Co. v. Teleflex Inc.*⁴. Along with that ruling came a sudden halt to examiners' willingness to consider my challenges to their use of shared advantage reasoning. In the minds of examiners, the Supreme Court, in *KSR*, had rejected both the TSM test and the problem-solution approach. It also seems as though *KSR* was regarded by examiners as having vindicated what was essentially a subjective obviousness analysis that examiners could complete very rapidly and with very little thought, research, or analysis. This compelled me to review my approach in light of *KSR*, and I eventually fell upon a revision that has, once again, proved effective in convincing examiners to either drop their obviousness rejections or provide true *prima facie* cases for obviousness that can be properly addressed on their merits.

Although my revised approach proved to be effective, I still found myself, on occasion, wasting several office action responses on the process of convincing examiners to abandon the errant methodology. Hoping that a clear victory on appeal would give me more ammunition to more consistently convince examiners earlier-on in the process, I awaited an examiner who could not be persuaded to reconsider the "shared advantage" approach, and would be confident enough to carry his or her unsupportable arguments to the Board. Finally, I encountered such an examiner. Having the full support of his supervisor, he could not be encouraged, cajoled, or otherwise persuaded to reconsider his devotion to the established "shared advantage" orthodoxy. Finally, on January 22, 2010, in *Ex parte Owen et al.*, the Board reversed all nine of the examiner's obviousness rejections, and supported each reversal according to reasoning I'd proposed in the appeal brief (and have detailed below).⁵

Before *KSR*, examiners would use the shared advantage approach to satisfy the first of three criteria that the USPTO's Manual of Patent Examining Procedure (MPEP) used, at the time, to indicate examiners had to meet to establish a *prima facie* case for obviousness:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure.⁶

Now, post-*KSR*, it appears that examiners are using the shared advantage approach to satisfy the re-written MPEP Section 2143 requirement that examiners present a clear articulation of the reasons why the claimed invention would have been obvious to one of ordinary skill in the art:

The Supreme Court in *KSR International Co. v. Teleflex Inc.*⁷ identified a number of rationales to support a conclusion of obviousness, which are consistent with the proper "functional approach" to the determination of obviousness as laid down in *Graham*. 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.⁸

The re-written MPEP Section 2143 then goes on to list 7 nonexclusive "exemplary rationales", only the very last of which is "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" (the TSM test).

When supporting the rejection of a claim for being obvious based on a combination of existing technologies, US examiners now consistently attempt to satisfy the "clear articulation" requirement by arguing that the combination would provide the same advantage as the claimed invention. Examiners generally express this argument in written form by "filling in the blanks" in a template statement along the following lines: "It would have been obvious to one of ordinary skill in the art at the time of the invention to -[*combination description here*] to [*advantage of the combination here*]. The test through which this errant template guides examiners is really no different from what examiners were using pre-KSR, but they now use the template to satisfy the new "clear articulation" requirement rather than old "suggestion or motivation" requirement.

It's become apparent that KSR has done nothing to dissuade examiners from continuing to uniformly use this flawed template to develop rationales that ostensibly support their decisions to reject claims as being obvious combinations of existing technologies. In fact, KSR has encouraged examiners to rely even more on subjective analyses than they did before. The understanding of the examining corps seems to be that the Supreme Court has overruled any requirement to use an objective TSM-type obviousness test, effectively giving examiners license to substitute their own subjective perceptions - which is a much less time-consuming task for them than searching prior art for a motivation to combine. As a result, I've seen the shared advantage template used by examiners to argue that it would have been obvious to combine known liquid dispenser features "to controllably supply a uniform amount of liquid"; that it would have been obvious to combine known humidifier features and air flow control technology "to control air flow to and from the humidifier"; that it would have been obvious to combine known computer software technologies "because it would have enabled installing software automatically"; that it would have been obvious to combine known communications technologies "because it insures communications are secure and uncorrupted"; and that it would have been obvious to combine known dental implant technologies "to better hold the implant during installation."

In each of the above examples the advantage realized by the combination may seem, at first, to represent a logical reason to combine. After all, wouldn't a desire to realize the advantage of a combination of technologies be a reason to do so? It's perhaps understandable, therefore, that an examiner would be so easily misled into supporting a finding of obviousness by simply identifying an advantage of the invention - one that the prior art combination would also provide. All the template requires is for the examiner to think-up a common shared advantage to fill in the

"advantage of the combination" field. With very little thought and analysis invested, the examiner can then move on to the next claim or the next case in his or her queue.

To expose the fallacy in this logic and examiners' misplaced reliance on KSR, I amended my "anti-shared advantage" rationale to take KSR into account: I now begin by pointing out that, under KSR, rejected claims are patentable over the applied references unless there is a "reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements in the manner claimed".⁹ I then point out that, rather than identifying such a reason, the Examiner has merely identified a shared advantage, i.e., an advantage that the invention "as claimed" by the inventor shares with the invention "as combined" from the cited references. I then explain why the supposed "motivation to combine" is actually nothing more than a shared advantage - and fails to provide any evidence that the shared advantage actually might have motivated one skilled in the art to combine the prior art and arrive at the invention.

My next step is to point out that, in addition, the examiner's shared advantage test cannot qualify as a "reason to make the combination" under *KSR* because any combination that would arrive at an invention will *always* and *necessarily* share the same advantages as the invention. If all combinations that reach a claimed invention always and necessarily share advantages with the claimed invention (because the combination *is* the invention), then whenever an applicant claims an invention that is a combination of prior art elements, all such inventions must be deemed unpatentable. In other words, simply identifying a shared advantage is entirely useless as a means of distinguishing obvious from nonobvious combinations. If the shared advantage approach cannot separate obvious from nonobvious, it's not a test at all.

I also point out to the examiner that the Court in *KSR* also held, citing *In re Kahn*, that a rejection on obviousness grounds must be "explicit," i.e., that it "cannot be sustained by mere conclusory statements; [that] instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."¹⁰ I then explain that, while the examiner's shared advantage analysis may loosely qualify as "articulated reasoning" under *In re Kahn*, it cannot be said to have the requisite rational underpinning since, again, it cannot differentiate between obvious and nonobvious combinations. To further buttress this point I also state that it's *irrational* to employ an obviousness analysis that cannot possibly succeed in distinguishing obvious from nonobvious combinations. In other words, it's not only *legally* insufficient for US patent examiners to support obviousness rejections by simply identifying a benefit or advantage that the suggested combination would share with the claimed invention, it amounts to *logical* error as well - and therefore fails to meet KSR's "rational underpinning" requirement.

If the examiner still won't relent, and the case goes to appeal, I add a public policy argument pointing out to the Board that permitting examiners to fulfill the "reason to combine" requirement simply by identifying a shared advantage, gives examiners the power to make obviousness determinations subjectively, based on their own gut feelings. It denies inventors and applicants any objective means of predicting whether or not an invention will be deemed nonobvious.

If an examiner is going to conclude that an invention is obvious solely because a combination of existing technologies that "arrives at" the invention also provides the same *advantages* as that invention, the examiner may as well declare that the invention is obvious because it provides the same advantages as itself! Such reasoning amounts to an irrational "circularity circus" that short-circuits the proper obviousness analysis and can be used to characterize *any* inventive combination as being obvious. Because this reasoning can be applied to almost all inventions, it's incapable of distinguishing between obvious and non-obvious inventions. In addition to its failure as test, the "shared advantage" approach can mislead an examiner into rejecting patent claims based on the examiner's subjective feeling or sense that an invention is obvious rather than on objective evidence of a teaching or suggestion in the prior art or general knowledge. Viewed more cynically, the shared advantage template allows examiners to knowingly and intentionally judge obviousness issues subjectively and to ignore the courts' attempts to preclude this practice.

In *Ex parte Owen et al.* (the appeal that finally allowed me to test my "KSR-centric" approach before the Board of Patent Appeals and Interferences), the rejected claims were directed to a signal power measurement system comprising a detector head that includes an input for receiving a test signal to be measured and a mixer for downconverting the test signal in frequency. The system also includes a signal processing apparatus for operating on the downconverted signal in the digital domain to perform a power measurement on the test signal, and a cable for connecting the detector head to the signal processing apparatus and for conveying the downconverted signal to the signal processing apparatus. This arrangement allows the detector head to be used at a location remote from the signal processing apparatus and to perform individual power measurements on CDMA signals having the same carrier frequency. Also, by downconverting the test signal at the detector head, the test signal can be sent through the cable to the signal processing apparatus at a lower frequency, reducing the likelihood that significant measurement errors might be introduced due to mishandling or misarrangement of the cable.

In my *Ex parte Owen et al.* appeal brief I began by asserting that the rejected claims were patentable over the cited references because there's no "reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements in the manner claimed" as required by the US Supreme Court in *KSR*.¹¹ I then supported that assertion by pointing out that, rather than identifying such a reason to combine, the Examiner had merely identified a shared advantage, i.e., an advantage that the invention "as claimed" by the inventor shares with the invention "as combined" from the disclosures of the prior art, in this case: "obviating the need to include a power supply in the detector head and allowing the size of the detector head to be reduced". I then followed-through with the rest of my arguments as outlined above. In its opinion reversing each of the obviousness rejections, the Board stated the following: "we find the record is silent as to the Examiner finding facts to support a legal conclusion that combining [the cited references] teaches or suggests the base claim 1 cable limitation¹², or providing reasoning for such a legal conclusion."¹³

So give it a shot! Don't allow examiners get away with this flawed obviousness analyses. Explain to them the illogic of the shared advantage approach and then give them the tools they need to help them more objectively distinguish between obvious and non-obvious combinations. Challenge them to look past their flawed template to whether there is any evidence of a teaching or suggestion that would have motivated one

skilled in the art to combine existing technologies to enable one to *realize* the advantage.

Unfortunately, the shared advantage approach has become engrained in the USPTO examining corps to such an extent that a few polite suggestions are unlikely to end its widespread use. If you haven't been challenging obviousness rejections based on this faulty shared advantage reasoning please consider doing so. To help move things along you might consider lodging a complaint with **the Associate Commissioner for Patent Examination Policy** (currently Janet Gongola) at 571-272-8800 (571-273-0125 fax) or submit an MPEP change request to the editor of the MPEP at MPEPFeedback@USPTO.gov. If you do, it may be enough to finally persuade the USPTO to make a serious move toward reducing patent prosecution time by jettisoning the shared advantage approach, guiding examiners through proper obviousness analyses, and, where a true *prima facie* case for obviousness can be made, requiring that examiners present it in the *first* office action on the merits.

Endnotes

1 "The Obvious Advantage" by Eric T. Jones, Intellectual Property Today, November 2006.

2 See, e.g., *In re Oetiker*, 24 USPQ2d 1443, 1446-1447 (Fed. Cir. 1992).

3 *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.* 37 USPQ2d 1626, 1630 (Fed. Cir. 1996).

4 127 S.Ct. 1727 (U.S. Apr. 30, 2007).

5 *Ex parte Owen et al.*, 2010 WL 286539, (Bd.Pat.App. & Interf.), January 22, 2010, Appeal 2009-001113.

6 Manual of Patent Examining Procedure (MPEP) 2143 citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)

7 KSR at 1737.

8 MPEP 2143.

9 KSR at 1741.

10 KSR at 1741, citing *In re Kahn*, 441 F. 3d 977, 988 (C.A. Fed. 2006).

[11](#) *KSR* at 1731.

[12](#) See *In re David H. Fine*, 837 F.2d 1071, 1073-74 (C.A. Fed. 1988).

[13](#) See *In re Leonard R. Kahn*, 441 F.3d 977, 988 (C.A. Fed. 2006).

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