The Obvious Advantage

BY ERIC T. JONES OF REISING, ETHINGTON, BARNES, KISSELLE, P.C.

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Examiners in the US Patent and Trademark Office have been quite uniform in their approach to supporting obviousness rejections based on combinations of references under 35 U.S.C. § 103. They have been consistently employing what might be called a "shared advantage" approach to establishing *prima facie* cases for obviousness. When they reject a claim as being obvious based on a combination of references, examiners consistently support the rejection by arguing that the combination would provide the same advantage as the claimed invention. They generally express this argument in written form by completing a 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 [*insert description of the combination*] to [*describe an advantage the combination would provide*]. I've seen this verbal template used to variously establish that it would have been obvious to combine known liquid dispenser features "to controllably supply a uniform amount of liquid," to combine known humidifier features and air flow control technology "to control air flow to and from the humidifier," to combine known computer software technologies "because it would have enabled installing software automatically," to combine known communications technologies "because it insures communications are secure and uncorrupted," and to combine known dental implant technologies "to better hold the implant during installation."

Examiners are probably using this shared advantage approach because they know that, to present a *prima facie* case for obviousness based on a combination of prior art references, they must show why a skilled person, when confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select elements from the cited prior art references for combination in the manner claimed. *See In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457-1458 (Fed. Cir. 1998). Examiners also know that, to help reduce the likelihood of improper hindsight-type analyses in these situations, the courts require them to support such a finding of obviousness with evidence of a suggestion or motivation to combine the references that create the case of obviousness. See, e.g., *In re Rouffet* at 1457-1458. That evidence may come 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. *See, e.g., In re Oetiker*, 24 USPQ2d 1443, 1446-1447 (Fed. Cir. 1992). Although examiners appear to be using the shared advantage approach in a sincere attempt to fulfill this requirement to show motivation, it causes them to bypass an essential portion of the proper analysis.

In the *Rouffet* case, the CAFC reversed the Board of Patent Appeals and Interferences for a similar failure to properly adhere to the proper analysis, i.e., for upholding an obviousness determination without relying on any of the permissible motivation sources described above. The Board relied, instead, on a high level of skill in the art as evidence of motivation to combine. Like the Board in the *Rouffet* case, examiners often fail to confine their analyses to permissible motivation sources. Instead, they rely on recitations of ***advantages*** that combinations of references would realize, i.e., the ability to provide the same benefit as the claimed invention. However, while the level of skill in the art is at least part of the judicially defined inquiry for a suggestion to combine, the ability to identify or think up a shared advantage is not.

But as many examiners see it, and as they and their supervisors have stated to me on several occasions, a shared advantage IS a motivation! After all, if there's an advantage to combining the features of different references to arrive at the invention, wouldn't that motivate one of ordinary skill in the art to do so? The answer is no - or, at least, "not necessarily." If the prior art actually teaches or suggests that the advantage would be realized by combining features, then perhaps the answer is yes – the teaching or suggestion might then have motivated one of ordinary skill in the art to combine the features. But what if there's no teaching or suggestion of this advantage; that is, what if the prior ar provides no "explicit motivation"?

To support combining references where there is no explicit motivation or express teaching to do so, the Court of Appeals for the Federal Circuit (the CAFC) has established the "problem to be solved" approach. According to the CAFC, when there's no express teaching, examiners can look for 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." *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.* 37 USPQ2d 1626, 1630 (Fed. Cir. 1996); *See also, e.g., In re Rinehart*, 189 USPQ 143, 149 (CCPA 1976); *In re Rouffet* at 1458; *Para-Ordinance Mfg. v. SGS Imports Intern., Inc.* 37 USPQ2d 1237, 1240 (Fed. Cir. 1995) (the prior art teaching must solve the same problem as the applicant sought to solve through the invention); *In re Oetiker* at 1446-1447. In other words, even if an examiner is unable to find evidence of motivation in an express teaching or suggestion in the prior art or knowledge generally available to one of ordinary skill in the art (as is typically the case), the examiner can still show that there was an implicit motivation to combine the references. The examiner can show an implicit motivation by producing evidence that one skilled in the art, confronted with the same problem as the inventor, would know to use a prior art teaching to solve that problem, i.e., the problem that the applicant sought to solve through the invention in question. *Id.* For this to be true the problem that the invention solves must be the same as or at least similar to the problem that the prior art teaching solves. *In re Rinehart* at 149; *Para-Ordinance* at 1240; *Motorola, Inc. v. Interdigital Technology Corp.*, 43 USPQ2d 1481, 1489 (Fed. Cir. 1997) ("the record evidence supports the jury's implicit finding of a suggestion to combine the various references . . .[which] were related and involved similar problems and issues."); *In re Zurko*, 59 USPQ2d 1693 (Fed. Cir. 2001) ("to say that the missing step comes from the nature of the problem to be solved begs the question because the Board has failed to show that this problem had been previously identified anywhere in the prior art.").

Not only is it *legally* insufficient to simply identify a benefit or advantage that the

suggested combination would share with the claimed invention, it amounts to *logical* error as well. If a combination reaches the invention, then that combination will *always* and *necessarily* provide the same advantages as the invention! How could it be otherwise? So, to conclude that an invention is obvious just because a combination of prior art references that arrives at the invention also provides the same *advantages* as that invention, is akin to saying the invention is obvious because it provides the same advantages as itself! Such reasoning 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, an advantage that an invention shares with an examiner's combination of references is incapable of distinguishing between obvious and non-obvious inventions.

Because the "shared advantage" approach is incapable of distinguishing between obvious and non-obvious inventions, it can mislead or allow an examiner into making an obviousness rejection based on a subjective feeling or sense that an invention is obvious rather than objective evidence of a teaching or suggestion in the prior art or general knowledge. To more objectively distinguish between obvious and non-obvious combinations, examiners should instead determine whether there is any evidence of a teaching or suggestion that would have motivated one skilled in the art to combine references to enable one to *realize* the advantage. This is where the "problem to be solved" test comes in. In short, the "problem to be solved" approach is to look to the nature of the problem to be solved whenever the prior art provides no explicit motivation to combine references. If the problem that the inventor solved by including a feature in his invention is different from the problem that the prior art solved through the use of the same feature, then there's no reason to expect that one of ordinary skill in the art would associate the prior art feature with the solution to the inventor's problem.

If, as a patent attorney or patent agent you raise this issue with an examiner, be prepared for a fight! The use of the shared advantage approach has reached a level of acceptance in the examining corps that's difficult to challenge. When asked to apply the "problem to be solved" test, some examiners will respond that they ***have*** fulfilled the requirement to identify a "problem to be solved" simply by identifying an advantage. They will explain that the shared advantage they've described should be viewed as just another way to identify the problem to be solved, i.e., the advantage realized by the combination should be viewed as the solution to the problem. However, if we are to accept the identification of ***any*** advantage as identifying a "problem to be solved," then, taking that argument to its logical extreme, advantages such as "how to save money" or "how to make more money" or "how to make a better invention" should also be accepted as problems to be solved since they provide an acceptable source of motivation in the form of "economic optimization."

This could not have been the Federal Circuit's intent when it established the "problem to be solved" test. If ***any*** shared advantage could serve as motivation, as explained above, it would prevent nearly all inventions from being patented since virtually all inventions comprise pre-existing technology combined in a novel way to provide economic benefit to the inventor or the inventor's assignee. When the examiner finds identity (or at least similarity) between the ***specific*** problem solved by the inventor and a problem solved by a prior art reference, then the examiner may be able to fairly conclude that the invention is obvious, or, in other words, that the pertinent motivation is a motivation to make obvious the technologic advance - not the omnipresent motivation to achieve a competitive advantage or achieve economic benefit.

Before launching into an attack on an examiner's shared advantage reasoning, though, it would be wise to apply the "problem to be solved" test on your own to determine, in advance, whether the fight will be worthwhile. Also, if you are a patent practitioner and you haven't been challenging obviousness rejections based on this faulty "shared advantage" reasoning, please consider doing so. If enough of us do it, and if enough of us appeal decisions based upon it, (and if the Supreme Court's review of KSR v. Teleflex doesn't result in a contrary holding) we will eventually succeed in persuading the examining corps to jettison the "shared advantage" approach in favor of the "problem to be solved" analysis - reducing prosecution time, obtaining the claim scope to which our clients are entitled, and saving our clients' money. IPT

dataBased Intelligence Allowed Patent for Drag & Drop Dynamic Distributed Object Model

dataBased Intelligence, Inc. (dBI) today announced that the United States Patent and Trademark Office allowed a pending dBI patent application entitled "Drag & Drop Dynamic Distributed Object Model".

The invention comes from the makers and developers of the legendary dBASE software (www.dbase.com), who over the past several years also introduced other breakthrough solutions such as dQuery (www.dQuery.com) and dBImobile (www.dBImobile.com).

The "Drag & Drop Dynamic Distributed Object Model" invention is a method for just- in-time assembly of applications. It is a low-cost, low-overhead technique to locate, load, and execute precompiled objects and execute them in the memory space of the local workstation at runtime. These objects can be stored on any accessible hard disk (locally or on a shared network drive). They are used with a relatively thin application that invokes the objects only as needed – either based on tasks selected by a user or a sequence of steps pre-programmed into the application. They may even be invoked by other Dynamic Objects.

The invention provides flexibility for users, and more importantly, for programmers. "We are very excited about this patent because it may have broad use and application in the software area" said Donald Franck, Acting CEO of dataBased Intelligence. The invention requires no middleware or interfaces. Just drop a new object module on the server and all users of the calling application are updated in real-time, even while the application is running.

dBI's newly-patented technology provides a new, efficient method of running and updating applications across a network without the expense and time involved in middleware installation and maintenance. It diminishes the load on the network and the network's servers by exploiting the resources of today's powerful workstations.

For more information contact: Duke Merhavy, Chief Operating Officer, 607-729-0234 x303 or dmerhavy@databi.com