A Supreme Court ruling with far-reaching consequences for American innovation turns on the definition of a single word

By Drake Bennett | May 6, 2007

Last week, ruling in a dispute over the design of a gas pedal, the Supreme Court jolted the American patent system. The case, KSR International Co. v. Teleflex Inc., dealt with the placement of an
electronic sensor in an accelerator that could be adjusted according to a driver's height -- not in itself a matter of national concern. But the court used its decision to issue a broad rebuke of the way in which American patent cases are decided. In the process, some patent lawyers say, it may also have added a new level of uncertainty to an area of the law that is vital to the nation's economy and our ability to protect and encourage innovation.

In a unanimous opinion, the justices ruled that the patent in question was invalid because designing a gas pedal in such a way was an "obvious" thing to do, at least to the average gas pedal designer, and therefore not really an invention. What's more, Justice Anthony Kennedy, writing for the court, argued that the current patent regime threatened to stifle the sort of creativity that the Founding Fathers had originally created the system to foster. Courts, Kennedy wrote, have been upholding patents for technologies or designs that didn't need them, that would have been developed "in the ordinary course" of events. In doing so, they have allowed bogus inventions to steal business from legitimate ones, and discouraged true innovation.

To correct this, the Supreme Court made it more difficult for patent applicants to claim that they've actually invented something, while also making it easier for older patents to be challenged.

Suddenly, according to patent attorneys and legal scholars, much that seemed settled law may be up for grabs. The KSR decision, says David Frazier, a partner at the intellectual property law firm Finnegan Henderson Farabow Garrett & Dunner, "is going to come up in practically every patent case that's currently pending."

Indeed, the stakes could hardly be higher. Patents, after all, shape huge swaths of our economy, not only in the pharmaceutical, electronics, software, and biotechnology industries, but in any sector in which profits depend on research and innovation. Research in Motion, the company that makes the Blackberry, last year had to pay $612 million to settle a patent dispute, and ongoing high-profile patent cases have the potential to affect everything from stem-cell research to the auction structure of eBay.

Odd as it may seem, the question of what deserves a patent and what does not turns on how courts define that one term: "obvious." The discussion might sound comical if so much didn't rest on its outcome -- without a clear definition of what's obvious, at least to someone with a little expertise in a particular field, there can be no objective definition of what constitutes an invention, and without that the patent regime would make no sense. As lawyers often put it, obviousness is "the final gatekeeper of the patent system."

But obviousness, over the years, has proven a somewhat fickle gatekeeper, and courts have had a difficult time nailing it down. "The courts have been going back and forth and trying to define obviousness for 150 years," says Mark Lemley, a patent law professor at Stanford Law School, "and it's still largely a 'you know it when you see it' kind of thing."
The Supreme Court's first major attempt to define obviousness was in 1850, in a case called Hotchkiss v. Greenwood. The invention in question was a doorknob. The court denied the claim by three men that their innovation of making doorknobs out of porcelain or potters clay rather than metal was a patentable invention. The difference, the court wrote, was merely formal, and "destitute of ingenuity or invention." An "ordinary mechanic acquainted with the business," the court ruled, would have been able to come up with something similar. It was, in other words, obvious.

In the 1930s and 1940s the court moved away from the term and tried to come up with something more demanding. According to Arti Rai, a patent law professor at Duke University, the move corresponded with an increasing skepticism on the court about the benefits of patents. For the New Deal court, Rai says, "Patents were associated with big business. The idea was that patents create monopolies and monopolies are bad." As articulated by Justice William O. Douglas, the new standard was that patents should be awarded only to those inventions that evinced, in his words, "the flash of creative genius."

Inventors and many patent lawyers complained that this formulation slighted those inventions that were born out of more incremental processes. Congress stepped in with the Patent Act of 1952, formally making novelty, utility, and "non-obviousness" the three requirements for a patent.

The first two -- novelty and utility -- have proven relatively straightforward, both for patent examiners and courts. Even a relatively trivial change in an existing product counts as novelty, and examiners traditionally interpret usefulness quite generously, on the assumption that if an invention turns out to be useless it's not going to make any money and there won't be a financial incentive for anyone to contest the patent. That leaves non-obviousness as at once the most subjective and important of the requirements.

Over the years the Supreme Court has tried various ways of imposing a more uniform standard. The most commonly used criterion is to look at the "prior art" -- that is, the accumulated store of knowledge in the field before the invention -- and ask whether someone reasonably familiar with that body of knowledge would have found the invention obvious. In this vein, the Federal Circuit created what is called the "motivation-suggestion-teaching" test, which requires that for an invention to be considered obvious, the professional literature must have specifically mentioned it.

On occasion the Supreme Court has cast a wide net for signs of an invention's predecessors. A 1976 decision footnoted Greek mythology, ruling that a water flush system for cleaning dairy barns was obvious in part because Hercules, in his Fifth Labor, had constructed something similar to clean the filthy Augean Stables.

A supplementary type of test looks to the market. If an invention proves especially successful commercially, the court ruled in 1976, that suggests the invention must not have been obvious, or market pressures would have driven someone to come up with it earlier.

All of these tests leave a fair amount of wiggle room for patent examiners and judges, but the fear among some patent attorneys is that last week's Supreme Court decision opened patent law up to a whole new level of subjectivity. That's because the court weakened one obviousness test without offering an alternative. The prior test had required that an invention, to be dismissed as obvious, had to be
connected to a specific "teaching, suggestion, or motivation" that a person of average skill could acquire. The Supreme Court argued that lower courts had been relying too much on that test, and suggested that, in general, courts should be more picky in upholding patents, but didn't say whether another test would work better.

The danger, according to David Frazier, "is that you lose that objective standard, and uncertainty goes way up." The patent system needs reliability, he argues. Inventors and researchers are less likely to put in the requisite thought and effort if they're unsure of what they need to aim for, and patent-holders are unlikely to invest in bringing a new invention to market if they don't know whether their patent will hold up.

According to Dan Ravicher, patent attorney and founder of the Public Patent Foundation, such concerns are overblown. Difficulties with subjectivity, he points out, are hardly unique to obviousness, or to patent law. "There's no objective test for 'beyond a reasonable doubt,'" he points out. "The law is full of subjective elements."

Ultimately, however, Frazier worries that obviousness, as a legal standard, is particularly subject to what psychologists call "hindsight bias." By the time a patent dispute makes its way into the courts, it can be very difficult to get an accurate sense of what was and wasn't obvious at the moment of invention. The more important and vital to our lives an invention is, the more likely we are to think it would have been obvious to come up with it in the first place.

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