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The Supreme Court and Patent Law: Does Shallow Reasoning Lead to Thin Law

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NIES MEMORIAL LECTURE*

THE SUPREME COURT AND PATENT LAW: DOES SHALLOW REASONING LEAD TO THIN LAW?

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Good afternoon. First, I want to say what a pleasure it is to be here. This is my first trip to Milwaukee, or Wisconsin for that matter, and I want to thank Marquette University Law School for inviting me and having me as your second Nies lecturer.

I also want to personally thank Craig Nard for arranging this visit. Craig and I are, I think it is fair to say, close cyber colleagues or friends. We worked together extensively on a project over the course of a couple of years, a case book on patent law,[1] and I came to admire his intellect and his writing ability. Although we had exchanged e-mails, talked on the phone, and been co-authors of a work, I had never met him face to face until yesterday. So it is a double pleasure to be here this afternoon, in part, because it is a chance to confer with one of my co-authors on this case book.

I must tell you that, as a patent law junkie, when I think of Wisconsin and patents I think of only one thing: a case back in the 1940s or 1950s

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1. DONALD S. CHISUM ET AL., PRINCIPLES OF PATENT LAW (1998) (casebook co-authored by Donald S. Chisum, Craig Allen Nard, Herbert F. Schwartz, Pauline Newman, and F. Scott Kieff).

concerning a patent held by the Wisconsin Alumni Research Foundation.[2] The patent dealt with a method of infusing food products with the vitamin that prevents rickets in children. I believe it was vitamin D. All the license clauses provided that this patent could only be used to infuse butter, not margarine.[3] The patent was litigated in the Ninth Circuit, and the court was outraged that state politics would be used to prevent this technology from being utilized on "the butter of the poor,"[4] margarine. Because all these children were getting rickets, the court directed its opinion be sent to the attorney general.[5] But I think, hopefully, the climate about intellectual property in Wisconsin is not fairly reflected by that one episode.

Today, I want to talk about some recent court decisions on patent law, but it is not what you might ordinarily think. I give a lot of speeches on the Court of Appeals for the Federal Circuit, but when thinking of a topic for this afternoon, I thought about the Supreme Court and what its role and contribution has been to the interpretation and development of patent law. Because it is close to the end of the millenium, I decided to think big. Going back one-hundred years would be too much, but I think it is a good mark to go back fifty years, making this sort of a half centennial (or would that be a hemi-centennial or whatever it is that goes back fifty years).

Generally, I want to look at the quality of the Supreme Court's contribution to patent law. I think that this is worth doing simply for its own sake as a matter of history, but there is some indication that we should now begin to pay more attention to the United States Supreme Court on matters of patent law. Since the creation of the Federal Circuit in 1982, we have all said that the Federal Circuit is the Supreme Court of patent law because they have virtually exclusive appellate jurisdiction over patent matters. Consequently, there is no point in thinking about the Supreme Court. This may be beginning to change.

I passed out a sheet that lists the most relevant Supreme Court decisions.[6] I had to make some judgment calls about which cases sufficiently affect patent law, as opposed to antitrust or some other type of law. I just composed this list from memory so please tell me if any of you think of Supreme Court cases that are not on the list. For example, I penciled in *Lear v. Adkins*,[7] a 1969 case, which I inexplicably overlooked. And just this morning I thought

2. Vitamin Technologists, Inc. v. Wisconsin Alumni Research Found., 146 F.2d 941, 63 U.S.P.Q. (BNA) 262 (9th Cir. 1944).

3. *See id.* at 945-46, 63 U.S.P.Q. (BNA) 266-267.

4. *Id.* at 945, 63 U.S.P.Q. (BNA) at 267.

5. *Id.* at 946, 63 U.S.P.Q. (BNA) at 267.

6. This list is included as Appendix A.

7. 395 U.S. 653, 162 U.S.P.Q. (BNA) 1 (1969).

of another case, *Blonder-Tongue Labs, Inc. v. University of Illinois Foundation*,[8] so pencil it into your sheet if you are interested.

One of the things you notice about the list is that towards the end there seems to be a rate of change. The Supreme Court over the last three years has taken at least one patent case every year. And increasingly the cases are on matters of core significance to patent law, not simply jurisdictional questions or cases interpreting special statutory exemptions and the like. So we may have a very direct interest.

Now, if you talk to anybody about patent law, one of the things that you might ask yourself is how long have I been in the patent scene; that is, where on the list did I become patent law conscientious? Where were you when each of these cases came down? Most of you, if you have any current interest in patent law, were around for *Pfaff v. Wells Electronics, Inc.*[9] But how many of you were around when *Graver Tank & Manufacturing Co. v. Linde Air Products*[10] was decided in 1950? Or maybe *Graham v. John Deere Co.*[11] in 1966, another benchmark? Or even *Diamond v. Chakrabarty*[12] in 1980? Those are all landmark cases.

My theory is that the patent profession, both admitted patent attorneys and those dealing with litigation and licensing, has mushroomed in size over the last ten years and so most of the people dealing with and practicing patent law today have not been in it for more than ten years. The vast percentage of these old cases, which are familiar to the old salts and in some ways kind of assumed, are new information.

Obviously, I am not going to have time to talk in detail about all these cases, but I want to assess their significance on two levels. If you do talk to old salts they will tell you that in general, they think the Supreme Court's contribution to patent law and policy has been negative, overwhelming negative and hostile. And I have intimated that myself on some occasions. But I want to refine that concept and look selectively at these cases on two levels.

The first level is one I call general attitude. "General attitude," I think, is a safe phrase to denote judicial attitude toward patents and the patent system. In many of these cases you will find phrases and statements by the Supreme Court, and individual justices, that express some skepticism and hostility about the patent system and about patents. The idea is that somehow most

8. 402 U.S. 313, 169 U.S.P.Q. (BNA) 513 (1971).
9. 119 S. Ct. 304, 48 U.S.P.Q.2d (BNA) 1641 (1998).
10. 339 U.S. 605, 85 U.S.P.Q. (BNA) 328 (1950).
11. 383 U.S. 1, 148 U.S.P.Q. (BNA) 459 (1966).
12. 447 U.S. 303, 206 U.S.P.Q. (BNA) 193 (1980).

patents are not really disclosing and protecting valuable new technology, but are really disguised anti-competitive devices or monopolies that run contrary to this country's policies with regard to free competition. This general attitude, which is based on certain assumptions about patent policy, allows us see how things change and vary over time.

I also want to look at a second level, the quality of the reasoning. If there is anything close to a new idea in this speech this would be it. It seems like in many opinions by the Supreme Court on patent law, the reasoning and the justification for the result is extraordinarily weak, illogical, ambiguous, or inconsistent. This inconsistency may do as much or more harm to the practical administration of the patent system as the expressions of general judicial attitude toward patents. The reason it may do more harm is that it is basically contrary to the whole idea of the rule of law. That is to say, if you have a standard or rule that is supported by ambiguous, inconsistent, plainly wrong, illogical, or whatever adjective you want to use, reasoning then it gives absolutely no guidance to the lower courts, to the Patent Office, or to practitioners trying to advise clients. In fact, one can then justify completely opposite propositions. In other words, decision-makers at every level are left to implement their own attitudes about either the patent system in general or the value of the particular technology.

So again, general statements of judicial skepticism towards patents can be overcome, especially in particular matters where you can show that a particular invention is especially valuable. Contrariwise, even if you have judicial expressions of great esteem for inventors, you can say that a particular invention is true trash and is not really an invention. But the illogical reasoning can create much chaos.

I want to go through some of the cases and try to illustrate what I mean by both the attitudes expressed at level one and also the illogic, or thin reasoning as I refer to it in the title, at level two. I want to emphasize that the two levels are really different ways of evaluating an opinion. There are some cases, for example, that you can encounter on this list that at level one are definitely identified as being hostile, almost extremely hostile, in tone towards patents, but they are clearly and logically reasoned. They put forth certain propositions based on policy considerations, and the reason for their rule is reasonably clear—although no rule is absolutely clear. I will give you some examples of Supreme Court opinions that are hostile to the patent system on the one hand, and on the other hand, put forth a rule and a rational for using it. Classical, sound, first year law school legal reasoning.

Probably the best example of an opinion that, though hostile to the patent system, sets forth a clear rule is *Lear v. Adkins*[13] in 1969, a case that overturned the notion of licensee estoppel. *Lear* said that a licensee, somebody who signs a license with a patent owner, can turn around and bite the hand that fed it, that a licensee could challenge the validity of the patent. *Lear* is, in certain circles in the patent community, a much, much despised decision because of its anti-patent tone. *Lear* is an opinion written by, I believe, Justice Harlan and it is in classic reasoned form.

I developed a rating system having three indicators; a plus because an opinion is pro-patent; a minus because an opinion is anti-patent; and a zero (which is my favorite) because an opinion is balanced. If I were going to rate *Lear*, I would say that on level two *Lear* gets reasonable marks for coherency of its reasoning. But on a policy level, I would say that *Lear* is definitely a minus. I think I could perhaps say that about only one or two of the other opinions on this list.

What I am going to try to do is go through some of these opinions and illustrate for you the level one attitude toward the patent system and the level two legal reasoning. That is, is it good legal reasoning that we expect from even first year law students. After I get through, I will offer some thoughts as to why the quality of coherency and reasoning on level two tends to be at best below average for opinions by the Supreme Court on patent matters, and why there have been shifts at level one in the attitudes. So there is the road map for where we are going.

We start off with a pair of decisions, a real interesting pair of decisions, in 1950. *Graver Tank & Manufacturing Co. v. Linde Air Products*[14] on the one hand, and *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Co.*[15] on the other. In their day these were famous cases, indeed much talked about. *Graver Tank* dealt with infringement and the doctrine of equivalents. *Great Atlantic & Pacific Tea* dealt with validity and the standard of what we now call obviousness.

Overall it is interesting because although *Graver Tank* looked, at least in the light of hindsight, wildly pro-patentee, on that level of attitude, it is a decision that is not at all balanced. It is a decision about the doctrine of equivalents which entails finding infringement by an accused product or process that does not meet the literal language of a patent's claims. The doctrine of equivalence is a difficult controversial doctrine that the Supreme

13. 395 U.S. 653, 162 U.S.P.Q. (BNA) 1 (1969).
14. 339 U.S. 605, 85 U.S.P.Q. (BNA) 328 (1950).
15. 340 U.S. 147, 87 U.S.P.Q. (BNA) 303 (1950).

Court gets around to in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*[16] in 1997. It is really the *Graver Tank* case that sets up how *Warner Jenkinson* is reasoned. But fundamentally, the doctrine involves, and should involve, balancing the interest of the public and potential competitors in being able to rely on the language of the patent as to what they can and cannot do on one hand, and the interest of providing a fair scope of protection for inventors on the other. If you read through the majority opinion, there is no balance in it whatsoever. The majority opinion is entirely a discussion about a patent owner obtaining fair protection. There is not an inkling of recognition that patent claims serve a notice function that people ought to be able to rely on. It is ironic that such a pro-patentee, pro-inventor opinion was issued in an era when almost all other Supreme Court decisions were decidedly negative.

Let me now look at the level two part of *Graver Tank*. If you read through the *Graver Tank* opinion you will see that it is based on a fundamental misunderstanding about the nature of patents and how they operate. It is fair to say that the Supreme Court in *Graver Tank* does not know the difference between a copyright and a patent. There is a paragraph in the opinion where they say, "courts have also recognized that to permit imitation of a patented invention which does not copy every literal detail would be to convert the protection of the patent grant into a hollow and useless thing."[17] The case continues to say that "[o]utright and forthright duplication is a dull and very rare type of infringement."[18] Those statements would apply to a copyright where you don't have claims and where the courts have long struggled with the notion that you have a protected work whether it is music, literature, or art, and somebody else imitates it but not exactly or literally. And you must decide under copyright principles whether it is close enough to say, even though the offender did not copy every little detail, it is still an infringement. But copyrights don't have claims. The purpose of a patent and having patent claims is to describe in general terms what the invention is.

What the Supreme Court says here is totally, utterly wrong. There are many instances of outright and forthright duplication. That is, somebody literally infringes by doing something that falls squarely within the language of the claim. So I have to give *Graver Tank* very low marks on the quality of the reasoning, partly because it is so one sided and also because it ignores some fundamental aspects of patent law.

16. 520 U.S. 17, 41 U.S.P.Q.2d (BNA) 1865 (1997).

17. *Graver Tank*, 339 U.S. at 607, 85 U.S.P.Q. (BNA) at 856.

18. *Id.*

Another thing that *Graver Tank* became famous for is the so called tri-partite test of equivalents; that is, something was an infringement if it performed substantially the same function in substantially the same way to achieve the same result.[19] Over time, that test has proven to be virtually, almost virtually (how about that for waffling a phrase), worthless as a guide. One of the things, it seems to me, that the Supreme Court should do at level two is provide reasonably clear standards and make some effort to give us a standard that makes sense in terms of reality. Over and over again in these cases you will see the Supreme Court fail to do that. The Court creates the test, but it did not sit down and methodically construct the test and explain it to us. Instead, the Court just quotes some earlier cases in which that kind of language was used. The lower courts after *Graver Tank* were simply left to say: well, I guess that is the test folks, with little guidance and very little grounding as to why that was an appropriate standard of equivalents.

We probably have been talking a bit about *Graver Tank* in part because of the recent *Warner-Jenkinson* case. But it has probably been a long time since people have paid much attention to the next case, *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*,[20] which was a great, much discussed case at the time and it may have contributed to the addition of § 103[21] in the Patent Act of 1952, the standard of non-obviousness that we now live under.

The question in *Great Atlantic & Pacific Tea*, generally, is what is a patentable invention? This is as fundamental a question as the one in *Graver Tank*, which asked when is a patent infringed and what is the scope of protection of a patent. *Great Atlantic & Pacific Tea* comes at the end of a twenty year span in which the Supreme Court had twenty cases concerning the standard of patentability and was remarkably consistent, virtually every patent it got its hands on it declared not patentable and invalid. There was definitely, on level one, a message and *Great Atlantic & Pacific Tea* sort of culminated that level one period of hostility. You can see why if you look at some of the language. There is language about scrutinizing combination patents with a care proportional to the difficulty and improbability of finding invention. There is also some good stuff for those people who are trying to patent business methods today, which is all the discussion out in Silicon Valley by the way. The Court said that "scores of progressive ideas in business are not patentable . . . ."[22]

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19. *Id.* at 608, 85 U.S.P.Q. (BNA) at 330.
20. 340 U.S. 147, 87 U.S.P.Q. (BNA) 303 (1950).
21. 35 U.S.C. § 103 (1994).
22. *Great Atl. & Pac. Tea Co.*, 340 U.S. at 153, 87 U.S.P.Q. (BNA) at 306.

On level two, there is no question *Great Atlantic & Pacific Tea* is saying don't pester us with patents. *Great Atlantic & Pacific Tea* set a very high standard of patentability and one can question whether that was an unreasonably high standard. Indeed, the concurring opinion of William O. Douglas in the case probably reflects the Court's attitude even more clearly. Justice Douglas was the most extreme of all the anti-patent justices. According to Justice Douglas you virtually had to be eligible for a Nobel Prize in order to get a patent. He listed a whole bunch of patents on gadgets, or cases involving patents on what he called gadgets, and asked: Why is the Patent Office doing this? Now, he did admit that an invention need not be as startling as an atomic bomb to be patentable, but he also stated that a patentable invention, and here is the quote, "has to be of such quality and distinction that masters of scientific field in which it falls will recognize it as an advance."[23]

So there is your level one. I went back and looked at *Great Atlantic & Pacific Tea* from the point of view of level two, quality of the reasoning. One can say that it is a policy choice, and one might want to have a very, very high strict standard of patentability. I must also mention that this was an era when there was no statutory guidance, the patent statute said something was patentable if it was new and useful—no further guidance. The courts have looked for other statutory basis for denying a patent on a new article or process that was literally new—i.e., it wasn't found identically in the prior art—but somehow or another it wasn't much of a true invention. The word is "invention." The patent statutes always used the word invention so the courts thought the word invention implied certain qualitative things and they developed the standard of invention. There was also quite a bit of case law precedent on the patentability of combinations, what were deemed to be combinations of the prior art, and there were phrases such as that a combination of the prior art that merely aggregates elements and produces no unexpected surprising result is unpatentable. Those were the rules. You may not like the rules, but those were the rules and if you seriously looked how to apply them, you would have the rule of law. But if you really look at what the court did in *Great Atlantic & Pacific Tea,* you would see that it fails at the second level. It doesn't even fairly apply those stringent rules.

Anyone remember what the invention was in *Great Atlantic & Pacific Tea*? Socratic dialog here. I see one person. It related to grocery checkout counters. This is long before the days when you had a conveyor that would carry the groceries up to the checker and you put one of those dividers down when the next customer comes along. This invention had to do with, I guess

23. *Id.* at 155, 87 U.S.P.Q. (BNA) at 307 (Douglas, J., concurring).

you would call it, not a horseshoe, but an elongated, three-sided rack that could slide on a counter structure out to the extended end of the counter. Customers would put their groceries on the rack and then the checkout clerk would pull all the groceries in to start the checkout and then push the rack back out so the next customer could start putting his items on the rack.

Admittedly, this sounds like a simple mechanical invention, but let us assume that it is shown nowhere in the prior art. The Court never said that the invention was ever shown in the prior art. Further, let's assume the invention was a valuable enough idea that somebody adopted it and infringed the patent. So here we have a patent describing a three sided frame that two courts, the trial court and the court of appeals, upheld because it not only seemed to achieve a new and useful result, but also had been commercially successful. One of the reasons that the trial court and the court of appeals upheld the patent was that it met the old rules, which stated that a mere combination of old elements puts the applicant under a special burden. The trial court said the invention was not a mere combination of old elements. Rather, there was a new element: the counter was extended. According to the Supreme Court, the district court explicitly found that the conception of a counter with an extension was new. Then the Supreme Court said, ah, but "extension" is not used in the claim, so even if you say that an extension is a new element, it is not used in the claim. Oh, really? After I read the claims, I found out that the Supreme Court didn't know how to read a patent claim. Because an extension is in there. The claim doesn't use the *word* "extension," but it says, as any typical patent claim, "[a] cashier's counter for cash and carry type of grocery comprising a portion spaced from the cashier's stand . . . ."[24] You see, it *was* there. The district court characterized "a portion spaced from the cashier's stand" as an extension, but the Supreme Court said that because "extension" is not in the patent claim, the applicant can't rely on extension. That does not pass first year legal reasoning.

If that wasn't bad enough, the court continued: even if an extension was a patentable improvement, the claim is invalid for "overclaiming the invention by including old elements . . . ."[25] The point was that the applicant claimed the extension in combination with the counter and other known elements. The Court called this "overclaiming." The Court reasoned that if one's only invention is an extension, he should have only put extension in the claim. If not in the first year of law school, any elementary patent law course will teach that the addition of an element to a claim does what: (a) broaden a claim's scope, or (b) narrow a claim's scope? The answer is (b) narrow a claim's

24. *Id.* at 148 n.1, 87 U.S.P.Q. (BNA) at 304 n.1.

25. *Id.* at 154, 87 U.S.P.Q. (BNA) at 305.

scope. So the applicant is not "overclaiming" when she adds old elements to new elements, she is "underclaiming." So this is an example of what I would call just plain, C-, D+ legal reasoning.

These are justices of the Supreme Court who would understand this concept if they were considering an example in torts or criminal law instead of patent law. What are the elements of a cause of action for burglary? There is a listing of elements, right? Prosecutors have to prove them all, every one of the elements. If you add an element to the offense it is more difficult to prove. So that is the idea of a patent claim having elements and limitations which narrow the claim's scope. This concept is not so alien to legal thinking that it should have been a mystery to the Supreme Court. I almost feel like resting my case on *Great Atlantic & Pacific Tea.*

How do you put those two cases together? Here we have two cases decided by the Supreme Court during the same term in 1950. The first, *Graver Tank,* is mindlessly one-sidedly pro-patentee. The other, *Great Atlantic & Pacific Tea,* is mindlessly, at level one, anti-patentee. Well the answer may be that in those days it was very difficult to have a valid patented invention. But once you had a valid patent it was likely to be infringed. In other words, patents were going to be construed broadly, but mainly invalidated. How is that compared to today in 1999? It is exactly the other way around, that is to say, although the Federal Circuit upholds most patents, through an elaborate jurisprudence of claim interpretation and restricting the doctrine of equivalents, we have gone the other direction, making it more and more difficult to establish infringement.

So that was an interesting pair of cases. Maybe the Supreme Court was so ashamed of themselves that they retired from the patent business for at least 15 years. Meanwhile the Patent Act of 1952 was enacted. I don't want to spend quite as much time going through any of these other cases, except we do get up to *Graham v. John Deere Co.*[26] in 1966.

Now if you work with patents you know that there is a litany that you must recite. If you have an issue of patentability and the issue is the condition of unobviousness you must recite *Graham* or at least talk about the *Graham* "factors." This is supposedly the Supreme Court's guidance on the standard of patentability. Actually, if you read Federal Circuit decisions and other lower court decisions, you would believe that *Graham* introduced a brave new era of fairness and neutrality, at least neutrality for patentees. However, if you actually go back and read the *Graham* opinion you will see that this is not true. Among other things, *Graham* says that the level of innovation required to obtain a patent was unchanged by § 103 of the Patent Act of 1952—they

26. 383 U.S. 1, 148 U.S.P.Q. (BNA) 459 (1966).

say it over and over again. The language has changed, but the Court's attitude toward patents in the thirties and forties was not meant to be altered by Congress.

Judge Rich has written extensively, and staked a better part of a career, showing that § 103[27] was intended to bring a different standard of patentability. He may be right, but that is not what the Supreme Court said in *Graham* and they backed up their words with deeds. *Graham* is a trilogy because there were three patents at issue, two out of the three were held invalid (that is at a 66.67 percent batting average). On level one, historically, *Graham* did not represent a significant change in judicial attitudes toward patents. This was in the mid-sixties.

Now I want to move to level two about *Graham*. *Graham* gives us the *Graham* factors, the *Graham* way of analyzing things. I have never been a huge fan of the *Graham* factors, in part because I am not sure that the three or four factors really relate to what the statute says. The *Graham* factors come from one paragraph, which mainly address law-fact questions.

One of the really difficult issues regarding obviousness in § 103[28] is to what extent we treat it as a question of law or fact. Over the last few years, we have hammered out some tentative solutions to that problem with regard to claim interpretation, but the Court has not revisited and resolved the question of how it is going to treat validity and obviousness. The *Graham* case says the ultimate question of validity is one of law but then there are several factual inquires. *Graham* divides up the analysis into law and fact and the three factual inquires are 1) the scope and content of the prior art; 2) the differences between the prior art and the claims; and 3) the level of ordinary skill in the art.

The first two don't tell you anything more than the statute. The third talks about the level of ordinary skill, but the court never explains the significance of the level of ordinary skill. How does that move you forward to a conclusion about whether a given invention, which is not exactly the same as the prior art, is obvious or unobvious? It's not very helpful. What really demonstrates how unhelpful the *Graham* factors are is the fact that the Supreme Court did not pay much attention to the *Graham* factors when it got around to analyzing the actual patents in front of it. Remember the three inquiries were the scope and content of the prior art, differences between the art and the claims, and the level of ordinary skill. The invention in the first patent was of a certain plow, a chisel plow. The Court never talks about the level of ordinary skill in the art whatsoever. It just goes merrily off on its own

27. 35 U.S.C. § 103 (1994).

28. *Id.*

analysis, analyzing the prior art, the claims, and puts a QED at the end of it: It is invalid. So if one of the level two obligations of the Supreme Court is to give us workable standards that provide real guidance, *Graham*, I think, is a bit of a fraud, despite how many times it has been cited.

The next case I want to put on the rating scale is *Brenner v. Manson*,[29] which dealt with the standard of utility. *Brenner* is a case that has quite a bit of contemporary relevance, particularly in the biosciences. In *Brenner* there was an attempt to launch an interference over a certain process for making a steroid compound, and the person who claimed the invention date did not, at that point in time, establish or even assert a specific use for the steroid compound. Oversimplifying, the question becomes if someone synthesized a new chemical compound or entity and does not have a specific use of any sort for it, but thinks that it is of interest for further research, is the standard of usefulness, which the patent laws have long prescribed, met?

The opinion is by Justice Fortas and on the first level, one would have to say that it is reasonably hostile towards patents, not so much the patent system but towards patent *attorneys*. One of the arguments for allowing patents on these compounds was that it would induce people to file early, therefore disclose early. If the law said a person has got to continue his research to find specific uses for the invention, he will delay filing. That harms the public interest in getting early disclosure. Justice Fortas, who had a powerful legal mind no doubt about it, is almost snide about that argument, commenting on how patent attorneys have a highly developed art of crafting patent claims so that they disclose as little useful information as possible while broadening the scope of claim as widely as possible. Justice Fortas goes on to say that he doesn't really think that the pressure of secrecy would be all that great. The concurring, or actually dissenting opinion on one issue, by Justice Harlan, probably would rate very high, if I were doing an overall rating. Justice Harlan pointed out the obvious flaw in Justice Fortas's majority reasoning. Although inadequate disclosure is a problem—it is a problem with all patents—there are ways of dealing with an inadequate disclosure. Also, it defies common sense to say that somebody who has no use for a compound will gratuitously, and without patent protection, simply disclose it so that somebody else will find a use. Common sense tells me people are not going to do that. Justice Harlan puts forth a rather powerful line of reasoning.

The next case, and I want to increase the rapidity of which I go through these cases, is an interesting non-event—what a shame. In *Standard Industries, Inc. v. Tigrett Industries, Inc.*,[30] in 1970, the Supreme Court

29. 383 U.S. 519, 148 U.S.P.Q. (BNA) 689 (1966).

30. 397 U.S. 586, 165 U.S.P.Q. (BNA) 289 (1970).

granted certiorari over a case involving the issue of the doctrine of equivalents. Although the case involved a simple mechanical invention, how different the patent system would have been today had we had another decision by the Supreme Court on equivalency in 1970. But interestingly enough, the Supreme Court voted four to four, affirming by an equally divided vote a Court of Appeals decision finding of equivalency. The equally divided vote obviously tells that equivalency was a controversial question in 1970. However, twenty-seven years past before the Supreme Court again visited the issue. In view of *Tigrett*, one cannot give the Supreme Court very high marks in its attempt to provide guidance and clear standards on patent law.

I will just give you a footnote on *Gottschalk v. Benson*.[31] I have written a whole article[32] that analyzes *Gottschalk*, virtually line by line, both from a level one and a level two point of view. In some ways, what I am talking about today is generalizing for other decisions what I said about the *Gottschalk*. In both terms of level one hostility towards patents and level two, quality of reasoning, *Gottschalk* comes in as the lowest of the low. The Supreme Court in *Gottschalk* said that a mathematical algorithm was simply not patentable subject matter. The reasoning included statements that a mathematical algorithm is in effect an abstract idea, it is a mathematical equation, it is a program. In fact, it was none of the above.

Another interesting sleeper case on this list is *Dann v. Johnston*[33] in 1976. The fact pattern in *Dann* involved business methods that bankers had always used on paper in the past but now were put into a computer implemented system. Specifically, the invention involved a machine system for automatic record keeping of bank checks; an attempt to patent a computer related invention. In other words, this was a business system, or business method implemented on a computer. Where would we be now had the Supreme Court given use some meaningful guidance in 1976 with regard to the patentability of computer implemented business systems.

But the Court completely ducked the issue, instead deciding the case on grounds that they had not really granted review over; they decided that the invention was obvious, that it did not meet the § 103[34] standards. So they completely ducked the question of statutory subject matter under § 101.[35] As I mentioned, *Dann* may be a sleeper case. It says a lot of interesting things

31. 409 U.S. 63, 175 U.S.P.Q. (BNA) 673 (1972).
32. *See* Donald S. Chisum, *The Patentability of Algorithms*, 47 U. PITT. L. REV. 959 (1986).
33. 425 U.S. 219, 189 U.S.P.Q. (BNA) 257 (1976).
34. 35 U.S.C. § 103 (1994).
35. 35 U.S.C. § 101.

about how you apply obviousness to business methods. The Court more or less implies that this invention is almost per say obvious. The Court uses words like the "gap between the prior art and [the] system is simply not so great as to render the system nonobvious . . . ."[36] I wonder if anyone will discover *Dann* when the issue of validity arises with the current wave of new patents that people are applying for on internet related business systems?

1980 is one of the key years for the Supreme Court, particularly on level one, the level relating to attitude. That was the year that both *Diamond v. Diehr*[37] and *Diamond v. Chakrabarty*[38] were decided. Interestingly enough, *Dawson Chemical Co. v. Rohm and Haas, Co.*,[39] dealing with patent misuse, was also decided in 1980. In each instance the Court put forth interpretations of patent statutes that were fair readings, even though in each instance their interpretation favored the patent owner. *Dawson* was more of what one would call classic legal reasoning at level two. Looking at the policy aspects, 1980 was clearly a pivotal year in turning both the attitude question around from one of outright hostility to at least a balanced neutrality. Moreover, in each instance the Court got back to doing plain, ordinary, sound legal reasoning when it comes to patents.

I want to finish up by looking at the last two cases on the list, *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*[40] and *Pfaff v. Wells Electronics, Inc.*,[41] and put them in the context of what I have been saying about these older cases. *Warner-Jenkinson* is a decision in which the Supreme Court, in an opinion by Justice Thomas, dealt with both the doctrine of equivalents and the related doctrine of prosecution history estoppel. It is one of the first Supreme Court decisions to openly and explicitly point to the need for the balancing of interests of both patentees and accused infringers. It is a simple idea, but it took the Supreme Court a long time to find it. Of all of these decisions *Warner-Jenkinson* is the one that most reflects a balance at level one by saying: Look, here are the patent statutes, they serve an important function and it is not our purpose as judges to be either overly expansive or restrictive of the rights of patent owners. On level two, I think I could fault *Warner-Jenkinson* in terms of the quality of the legal analysis. Part of the problem was stare decisis. Much of what was said and argued in *Warner-Jenkinson* would make no sense except in relation to *Graver Tank*. More importantly, the primary reason why the Supreme Court should take a case on patent law

36. *Dann*, 425 U.S. at 230, 189 U.S.P.Q. (BNA) at 261.
37. 450 U.S. 175, 209 U.S.P.Q. (BNA) 1 (1980).
38. 447 U.S. 303, 206 U.S.P.Q. (BNA) 193 (1980).
39. 448 U.S. 176, 206 U.S.P.Q. (BNA) 385 (1980).
40. 520 U.S. 17, 41 U.S.P.Q.2d (BNA) 1865 (1997).
41. 119 S. Ct. 304, 48 U.S.P.Q.2d (BNA) 1641 (1998).

(or any other area of law) is to articulate a workable standard. At the very end of the *Warner-Jenkinson* opinion, the Court says: the standard for equivalency is a "verbal nicety" matter; we will leave articulation of the verbal standard to the lower courts. Where else would they say that than in patent law.

Finally we come to *Pfaff v. Wells Electronics, Inc.*,[42] the on-sale bar case. Interesting, this is probably the first decision by the Supreme Court ever on the on-sale bar, even though the on-sale bar doctrine has been around since 1836, or there abouts. The Supreme Court has decided numerous *public use* cases, but this was the first case dealing with the on-sale bar. Whether you like the result or not, the Court makes some stab at coming up with a workable test for when an invention is complete and therefore when the one year grace period for applying for a patent begins. So the Court is trying to put forth a standard, which is the way they ought to behave. The test, as you probably know if you follow patents, looks at two conditions: First is the product the subject of a commercial offer for sale; the second condition is that the product is "ready for patenting."[43]

It was clearly true in the case that the applicant had already signed a contract to sell the invention, but he just not bothered to build it yet. So the Court looked at the second condition, whether the invention was ready for patenting. Now that is a new idea, but he goes on to say, this is Justice Stevens, that the second condition could be satisfied in two ways. One is by proof of a reduction to practice. We know what that means. It's the second part that is a little curious; it says, the second is by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention. That's an unfortunate phrasing because it leaves it ambiguous as to what he really means. What is the standard of sufficiently specific to practice the invention? One could argue that it is really the same as what we know in patent law as conception. That is, the drawings and description disclose the entire invention in sufficient terms to enable a person to make and use the invention. That is the standard for applying for a patent. But on the other hand, *Pfaff* says, literally, enable a person to "practice" the invention. Is "practice" the same standard as that of § 112?[44]

If you read the case in light of the facts, the inventor, had prepared detailed engineering and production drawings and sent them to a manufacturer, which is a great deal more than you need to be file a patent application. So it is at least plausible to argue that the test here is not one of

42. *Id.*
43. *Id.* at 306, 48 U.S.P.Q.2d (BNA) at 1646.
44. 35 U.S.C. § 112 (1994).

mere written description of the invention—that would be a conception—but something more detailed than that. The one thing one hoped for from the Supreme Court was a definitely clear test and it seems at least in this respect they have given us not quite a clear enough standard.

Well let me wrap up with some overall thoughts about *why*, over this expansive time of fifty years, at level one we have had shifts in judicial attitudes. The superficial explanation, of course, is we have changes in judges and some the judges and justices back in the 1950s, 1960s, and 1970s where "liberal," too much into "free" competition, and anti-business etc. This was basically an attitudinal difference. Now we have more judges who are "pro-business." That's a way of explaining the attitude shift. Although there is some plausibility to the explanation, an interesting idea that I am starting to work on is the notion that the judges in some more general sense have a perception of where the important new technology is coming from. Where did the important new technologies that are changing our lives come from?

In fact, if you look through the 1950s and 1960s, many of the breakthrough technologies resulted from the effort in World War II and came either from government funded research or involved companies who freely cooperated with each other as part of the war effort. In fact, it is amazing if you trace the history of specific technologies how many of them go right back to that era. Example would be inventions like the digital computer and semiconducting, the very process of semiconducting leading to transistors. In the war days, companies were encouraged to turn loose their scientists so they could talk to each other, meet in groups, brainstorm. And a lot of this basic technology then evolved out of that effort and was continued by a lot of government investment as part of the Cold War defense effort.

There could be an overall sense that a lot of the dramatic technologies were not private investment driven and hence not fairly subject to reward through the patent system. Rather, the technologies came via the other fundamental way, you supposedly induce invention—government subsidy, direct or indirect. This may be just a crazy thought, but obviously today when you look around it is very, very clear that the contemporary technologies are purely driven, virtually purely driven by private investment; e.g., the prospects of that IPO ("initial public offering"). Hence, judges perceive that providing strong patent protection is appropriate, even essential. Now maybe this is the Silicon Valley culture that I have been living in for the last two years but they may have something to do with that judicial attitude change.

Finally, as to level two, maybe I am wrong; maybe in all areas of law the Supreme Court's reasoning is as bad as it is in patent law. Nevertheless, the Justices seem to treat patent cases as second class citizens and write opinions that read as though they were dictated while standing waiting for the elevator.

They fail to provide a high quality of reasoning, and do not offer standards that will work and make sense in terms of how a very complex system like the patent system actually operates. Why? I don't have a 100% guaranteed answer. I have some thoughts about that. I think for one thing there is not enough good literature and scholarship. People like Professor Nard need to keep writing good articles analyzing these problems; in other words, providing the courts, especially the Supreme Court, with more help and more guidance. I think there is a problem generally in patent law that many of the people who know enough about the problems of the system to say intelligent constructive things about it don't want to because either they have various clients with conflicting interests or they don't have the time or whatever. A general reaction that I have is that the quality of scholarship over the years is simply not up to what it is in many other areas of the law. So the Supreme Court, frankly, may not get as much professional help from the scholarly and practicing community in patents as it gets in other areas.

Well, those are some thoughts I have. I think I have run a little longer than Professor Nard wanted me to run because he wanted to have some time for questions or reactions. But it was certainly a lot of fun to take the time and look through this huge pile of cases. I hope there was a thought or two there that was of some interest to you as well. Thank you very much.

QUESTIONS AND ANSWERS

Question:

I heard a speaker a while ago suggest that this recent status of Supreme Court cases is indicating that maybe they are looking for good patent cases as opposed to just letting the Federal Circuit handle them.

Response:

I think that maybe the Supreme Court is taking more patent cases because the area has gotten so hot, so important in the legal profession. The top of the line New York and other law firms are doing patent work for large clients. So it could be that patent law has now achieved such a level of respectability in the legal community that the Supreme Court is not looking at patent law as inferior. I had younger colleagues, especially at the University of Washington, who clerked on the Supreme Court and said that they did not want to do patent cases, they were no fun. That attitude may be changing.

The Federal Circuit is in some ways feeding the fire because its judges keep quarreling among themselves openly. Although *Pfaff* was out of the ordinary, not that the Federal Circuit was not butchering the on-sale doctrine,

it was just an odd case for them. *Pfaff* was pure patent law that was not tied into jury procedures and did not affect how to try cases, as you could say with *Warner-Jenkinson* and *Markman*.

Question:

Is there any difference that we might draw from the rapidity of the *Pfaff* decision? It was argued one week and decided in the next. It strikes me as unusual.

Response:

It came down quickly didn't it? But you notice Justice Stevens wrote the opinion and going back to his Seventh Circuit days, he was probably as familiar with patent law issues as the Federal Circuit. It is rumored, and you can find some hints of this in his opinion, that he doesn't think highly of the Federal Circuit. One of the odd things is the indication in the opinion as to why they granted certiorari in this case. You know there can't be a *current* conflict among the circuits because currently the Federal Circuit hears all patent appeals. But that is what he said. Because the Federal Circuit's decisions are inconsistent with other courts, and he cites the Second Circuit and the Seventh Circuit, indicating that in his mind those opinions are as weighty as those in the Federal Circuit even though the Federal Circuit was created by Congress and given unified jurisdiction over patents.

Question:

For patent cases in the Supreme Court, are there a lot of amicus briefs submitted, and have you ever been involved?

Response:

The answer to both is yes, there are typically a lot. I don't how many there were in *Pfaff*, but there were some. *Warner-Jenkinson* had a huge number of amicus briefs regarding the doctrine of equivalents and I did participate in one for a biotech company. But I think the Supreme Court got, in some ways, very little help out of the amicus briefs, except for the one by the government. It is rumored that the Court got the message that the doctrine of equivalents was a big deal because there were all these amicus briefs divided up by industries. Industry associations and the players kind of lined themselves up. The automobile industry, which doesn't much like patents and especially doesn't like broadly worded patents by individual inventors, filed an amicus brief saying: Abolish this doctrine; This doctrine is terrible; We are pestered by patents all the time. The biotech industry, which considers

patents to be their life blood and that a reasonable scope of equivalents is essential given the nature of their technologies, filed briefs saying: No, no, no you can't abolish this doctrine; It is too important to the interests of our industry. So the Court does get amicus briefs, but the problem is that they are from industry groups, which isn't necessarily the kind help on the doctrines they need; for example, almost none of those briefs intelligently discuss prosecution history estoppel. So what the Supreme Court in *Warner-Jenkinson* says about estoppel is sort of new stuff and there are some problems with how that was reasoned.

Question:

What is it going to take to bring clarity to the doctrine of equivalents? Will it take another Supreme Court case or more quarreling and conflicting case law to finally resolve the issue?

Response:

I think eventually the Federal Circuit will have to work it out. They were sort of told by the Supreme Court to start evolving through case law some standards on equivalents and over time one would hope they would do that. I wouldn't be too optimistic that the Supreme Court will ever take another equivalency case. I just think they are going to take one or two a year at most and there are other issues that they will hit sooner. I was almost a little surprised when they did not take *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*[45] This question of patenting business methods is one that might attract the Supreme Court's attention, partly because there are so many dollars at stake. On Saturday, I heard a talk by somebody involved in what is called Priceline.com, an internet system where you buy airline tickets. They are under an IPO right now, raising 10s and 100s of millions of dollars from the public for this system of doing business which is, as far as I can tell, worthless if they do not have a patent. In fact, this fellow was asked whether the airlines themselves could use their own computers and data to do this, what is to stop them? And there was just a two word answer: the patent. So here the dependency of the whole newly emerging industry on patents is probably greater than pharmaceutics. It would be most unfortunate for the Supreme Court to leave doubt about this issue lingering out there for very long.

45. 149 F.3d 1368, 48 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1998), *cert. denied* 119 S. Ct. (1999).

Question:

Do you feel you need some sort of control group for your theory? I wonder whether if you looked at other areas of the law that are technical, if you would discover that the Supreme Court is also lacking. I was also rather struck by the fact that—at least some of the first few examples that you gave, even having nothing to do with patent law—I probably could have guessed who had written the good opinions and who had written the bad opinions. If you had told me Justice Harlan, Justice Douglas, and Justice Fortas, I would have said Harlan wrote a good opinion and Douglas and Fortas did not. The same is true for the *Graham* case. I am not a patent law person, you say that *Graham* involves various factors and the Court does not take a lot of guidance from those factors. The same could be said about any number of other multi-factor balancing tests that the Supreme Court has issued in everything from constitutional law to other areas of the law. So I am wondering whether your theory needs some sort of control group.

Response:

I would agree with that. That is a question I keep trying to ask my colleagues and I don't have a totally clear answer. So having some kind of control group, somebody else who did the equivalent of what I just did, taking some other semi-technical area and trace it over a course years and pinned it to certain justices. Basically I would agree with that in the other courses and areas I have studied and taught. Harlan always wrote great opinions. Douglas's opinions tend to be off the cuff. But Douglas's opinions with patents were particularly, I don't know what to say, I mean he had a well known hostility to the patent system. You could be right but *Gottschalk* is as bad as they get.

Question:

My other question for you would be what would you do to restrict the Supreme Court's jurisdiction over patent cases? Just let the Federal Circuit resolve things? That would seem to be a reasonable policy choice because you at least have competent help at the level of the Federal Circuit. Would you be supportive of that kind of proposal? There was some sense in the mid 1990s that the Federal Circuit needed, as someone associated with the Federal Circuit put it, "adult supervision." But I also wonder whether the costs of that are too great as you seem to suggest.

Response:

Well I thought of that idea and rejected it because they do need some adult supervision sometimes, frankly, and how is the situation going to get better if they know there is nobody looking over their shoulder. So I guess, in general, I like the idea of the Supreme Court occasionally taking cases just as they do over the other circuits. But I guess my plea is please take patent law seriously and don't write opinions in a month and a half. It is just a plea for quality because of the special problems that exist in patent law. Maybe it is like other areas of law, but in some ways it is a whole system in and of itself. In other countries, patent law is considered a separate profession and some countries even have separate court systems. Patent law is becoming a huge track and a little doctrinal mistake can create an inordinate amount of confusion. And they are not likely to revisit the issue very often. I think the idea of Supreme Court review is good, but they ought to be as careful as possible on how they write the opinions.

Maybe they need better help from the government. They got some help in *Warner-Jenkinson*, I just hope that they would get even better help. In *Warner-Jenkinson*, Justice Thomas cites and uses the government's amicus brief, which was a team effort of counsel for the patent office and counsel for the solicitor general (and which might not be a bad idea). In other words, get doctrine out from under the industry groups and have the background better explained. I wasn't 100% satisfied with the government's amicus brief because it did not carefully explain all the various parts of § 112; that is, how some rejections are for indefiniteness, others for non-enablement, etc. That was the kind of thing that would have been useful to have clarified.

Question:

Presumably the government has some sort of particular interest in an issue in *Warner-Jenkinson*, so you can't rely on them to file an amicus brief unless they do. I guess the more I hear you, I wonder whether your inclinations are at war with your evidence. Your inclinations are that the Supreme Court wants to stand bow, but your evidence seems to show a lack of confidence not a lack of interest. Justice Stevens would have come up with the same reasoning whether he had worked on an opinion every day for six months, or came up with in two or three weeks, and that has nothing to do with Justice Stevens per say. So I wonder whether you embrace where your evidence seems to be leading you.

Response:

I'll tell you one thought I had was that the Supreme Court justices picks very high quality law clerks, but I wonder if the Supreme Court's internal deliberations would be aided if they had internally available clerks who were technically trained. The Federal Circuit has technical clerks to the court, correct? People with technical backgrounds might be helpful, maybe clerks with some experience in patents and other technology-driven areas of the law. That is done in other countries like in Japan for example. I do not know if that would help.

Question:

What is the prospect that the whole game might change by Congress doing something like switching to a first to file system?

Response:

The game change? Well I don't personally think a change to a first to file system will fundamentally change the game. In other words, in terms of the volume of patenting and the amount of patent litigation, it would change the game very little. However, there never seems to be much pressure in Congress for restrictive legislation with regard to IP rights, except some areas of copyright. I don't see a lot of movement by Congress. They seem distracted by other things. Some simple pieces of legislation relating to reexamination or publishing patent applications seem to evoke instant controversy. Almost anything changing patents seems to evoke controversy, but the response in Congress seems to be to do nothing if there is much controversy to it.

APPENDIX

Supreme Court Decisions on Substantive Patent Law and Policy: A Half Century Review (1950-1998)

DONALD S. CHISUM

1. *Graver Tank & Manufacturing Co. v. Linde Air Products*, 339 U.S. 605, 85 U.S.P.Q. (BNA) 328 (1950).

2. *Great Atlantic & Pacific Tea Co. v. Super-market Equipment Co.*, 340 U.S. 147, 87 U.S.P.Q. (BNA) 303 (1950).

3. *Hazeltine Research, Inc. v. Brenner*, 382 U.S. 252, 147 U.S.P.Q. (BNA) 429 (1965).

4. *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. (BNA) 459 (1966), and *United States v. Adams*, 383 U.S. 39, 148 U.S.P.Q. (BNA) 479 (1966) (the "*Graham* Trilogy").

5. *Brenner v. Manson*, 383 U.S. 519, 148 U.S.P.Q. (BNA) 689 (1966).

6. *Lear v. Adkins*, 395 U.S. 653, 162 U.S.P.Q. (BNA) 1 (1969).

7. *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 163 U.S.P.Q. (BNA) 673 (1969).

8. *Standard Industries, Inc. v. Tigrett Industries, Inc.*, 397 U.S. 586, 165 U.S.P.Q. (BNA) 289 (1970).

9. *Blonder Tongue Laboratories v. University of Illinois Foundation*, 402 U.S. 313, 169 U.S.P.Q. (BNA) 513 (1971).

10. *Gottschalk v. Benson*, 409 U.S. 63, 175 U.S.P.Q. (BNA) 673 (1972).

11. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 181 U.S.P.Q. (BNA) 673 (1974).

12. *Dann v. Johnston*, 425 U.S. 219, 189 U.S.P.Q. (BNA) 257 (1976).

13. *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 189 U.S.P.Q. (BNA) 449 (1976).

14. *Parker v. Flook*, 437 U.S. 584, 198 U.S.P.Q. (BNA) 193 (1978).

15. *Diamond v. Chakrabarty*, 447 U.S. 303, 206 U.S.P.Q. (BNA) 193 (1980).

16. *Dawson Chemical Co. v. Rohm & Haas Co.*, 448 U.S. 176, 206 U.S.P.Q. (BNA) 385 (1980).

17. *Diamond v. Diehr*, 450 U.S. 175, 209 U.S.P.Q. (BNA) 1 (1981).

18. *Dennison Manufacturing Co. v. Panduit Corp.*, 475 U.S. 809, 229 U.S.P.Q. (BNA) 478 (1986).

19. *Christianson v. Colt Industries Operating Corp.*, 486 U.S. 800, 7 U.S.P.Q.2d (BNA) 1109 (1988).

20. *Cardinal Chemical Co. v. Morton International, Inc.*, 508 U.S. 83, 26 U.S.P.Q.2d (BNA) 1721 (1993).

21. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 38 U.S.P.Q.2d (BNA) 1461 (1996).

22. *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 41 U.S.P.Q.2d (BNA) 1865 (1997).

23. *Pfaff v. Wells Electronics, Inc.*, 119 S. Ct. 304, 48 U.S.P.Q.2d (BNA)1641 (1998).

24. *In re Zurko*, (forthcoming) (Argued March 24, 1999)