One Trip to the Dentist Is Enough

Reasons to Strengthen Intellectual Property Rights through the Free Trade Area of the Americas Now

OWEN LIPPERT

Negotiating free trade agreements is the political equivalent of a trip to the dentist. Changing intellectual property laws is a trip without anesthetic. It takes a great deal of persuasion for any country to do one, let alone both. Based on my experiences in 1997 and 1998, a stronger case needs to be made for negotiating a high and consistent level of protection for intellectual property rights in the Free Trade Area of the Americas (FTAA).[1]

In 1997 and 1998, I attended the Business Forum sessions that meet just before the annual hemispheric trade ministers' summit to discuss the progress towards FTAA negotiations.[2] The forums were held respectively in Belo Horizonte, Brazil,[3] and San Jose, Costa Rica.[4] I participated in the sessions of the Working Group on Intellectual Property.[5] Watching the discussions would have led anyone to suspect that the intellectual property rights to be negotiated in the FTAA might not advance beyond the current international standard found in the 1994 agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement)[6] negotiated during the Uruguay Round of trade talks establishing the World Trade Organization (WTO).[7]

Notes will be found on pages 159–65.

I argued as much in an article for the Americas Column of the *Wall Street Journal* under the headline, Pirates Plunder Patents. Will the Rule of Law Prevail? (Lippert 1998). In response to the piece, James Packard Love,[8] who also attended the Business Forum sessions, and I have had several public and private debates. Our debate has mirrored the ongoing North-South discussion on intellectual property rights (IPRs) and trade (Primo Braga 1989). The existence of our debate raises the question that if the benefits of stronger IPRs are so self-evident, why does it take international treaties to prod developing nations into compliance?

The question can be restated in the context of the current effort by 34 nations to negotiate IPRs in the FTAA. Are American trade negotiators acting largely for the benefit of the American pharmaceutical, software, and entertainment industries and are they using the FTAA to advance in a more manageable regional forum those IPR standards that were not secured in TRIPS? Are they seeking an accelerated implementation of TRIPS and possibly a TRIPS Plus in key hemispheric markets? If so, is this a desirable strategy for either or both the United States and the developing Latin American countries?

These questions arise against a background of persistent academic skepticism as to the wisdom of negotiating IPR standards in multilateral trade negotiations at all.[9] Reflective of that analysis is an article by J.H. Reichman (1993), in which he undertakes to refute the following three propositions that, he asserts, underlie the effort of developed nations to strengthen IPR in multilateral negotiations. First, "[s]trong intellectual property rights exert an unreservedly positive influence on developed free-market economies." Second, "[s]trong intellectual property rights benefit all countries regardless of their present stage of development." Last, "[t]he acquisition of non-indigenous technologies by developing countries other than by imports or license usually constitutes an illicit economic loss to the technology exporting countries" (Reichman 1993: 173).

Reichman dismisses the first two propositions as "counter-intuitive and neither historical experience nor the literature support them" (1993: 174). Though he concedes that countries with established IPR regimes are better off with them,[10] Reichman questions whether stronger regimes are necessarily more efficient than weaker ones (1993: 174). He describes the third proposition as "this residual mercantilist attitude [that] conflicts with the underlying competitive ethos from which intellectual property rights derogate and with the territorial nature of these derogations" (1993: 175). Under this view, the negotiation of IPR in the FTAA is just another exercise of raw economic power rather than a principled step towards an optimal regime. As in the Uruguay Round, where trade access to developed nation markets was

horse-traded for the developing world's agreement to TRIPS, the FTAA round proposes a similar deal in which the elimination of hemispheric tariffs will be exchanged for a regional TRIPS Plus.

In response to Mr. Love, Professor Reichman, and others, in this chapter I will seek to answer the following three questions.

(1) Should a standard of IPR protection higher than that guaranteed by TRIPS be negotiated in the FTAA?

(2) If yes, what should be the level and scope?

(3) What specific enforcement mechanisms should be negotiated in the FTAA to ensure an effective agreement?

In doing so, I shall propose that the FTAA negotiate a higher and clearer level of intellectual property protection than TRIPS, specifically one that would follow the intellectual property provisions of the North American Free Trade Agreement.

Question I Should a standard of IPR protection higher than that guaranteed by TRIPS be negotiated in the FTAA?

(A) Strengthening IPR offers long term gains

Strengthening IPR creates only transitional losses for developing countries while providing long-term gains.[11] The economic and social benefits, however, lie as much in strengthening property rights in general as in any specific new investment and transfer of technology. While empirical research can show the balance of economic gains and losses, other benefits, primarily the entrenching of the rule of law, are not so easily proven, though potentially more effective in stimulating sustainable economic growth. The long-term economic and social value of those benefits, not clearly susceptible to empirical measurement, outweigh the losses incurred either by restrictions on copying or by the granting of so-called monopoly privileges.

(1) Empirical debate over the effect of IPR standards

Conventional economic analysis of the effects of patents and other IPRs has tried to compare the social (or total) benefits of increased incentives for innovation against the social cost of the so-called monopoly right. Various efforts have been made to postulate empirical measures with which to validate the respective claims of net social loss or benefit.[12]

The standard "empirical" case against strengthening IPR in developing countries stems from the observation that the short-term losses cannot help but outweigh the long-term gains because such IPR laws would forbid the relatively easy and cheap copying of foreign patented goods.[13] Unable to produce these goods, in particular pharmaceutical drugs, developing countries would face an immediate and insurmountable loss to the welfare of domestic consumers.[14] Further, developing countries would be denied the opportunity to develop their economies through a growth-through-imitation stage such as characterized Japan after World War II.[15] By this view, the immediate costs of stronger IPRs, including higher administrative and enforcement expenses, larger royalty payments, potential price increases in patented products, and the restriction of "pirate" producers, overwhelm any gains from the resulting stronger incentive-to-invent, which, at any rate, would be concentrated in the already developed world (Reichman 1993: 174). This case has been cast as so obviously empirically valid that relatively little research was conducted to verify it.

In the last 20 years, however, numerous studies have sought to measure the effect of changes in IPR standards on such items as economic growth, foreign direct investment (FDI), technology transfer, and consumer welfare (Primo Braga 1990a; Evenson 1990). Special mention must go to the pioneering work of Edwin E. Mansfield of the University of Pennsylvania (Evenson 1990). The literature to 1990 was ably reviewed by Robert E. Evenson and Carlos A. Primo Braga in a World Bank study.[16] It is fair to say that the results up to then were tentative.

Newer studies have, however, begun to demonstrate a consistent positive correlation between stronger IPR and desirable effects in each of these areas.[17] More fine-grained studies have even shown a relationship between the quality of protection for IPRs offered in developing countries and the specific types of investment undertaken by multinational corporations (Sherwood 1997).

Even in the flash-point debate over the cost of stronger patent protection for pharmaceutical drugs, new evidence suggests that earlier concerns may have been somewhat exaggerated. Canada provides an instructive example (Lippert, McArthur, and Ramsay 1998).

In 1993 in preparation for the signing of the North American Free Trade Agreement (NAFTA), Canada upgraded its intellectual property laws. Specifically, the new law, known popularly as Bill C-91, ended the practice of compulsory licensing of patented pharmaceutical drugs developed by foreign drug companies (Patent Act Amendment Act of 1992, S.C., ch. 2, §3 [1993] [Can.]). The fear at the time was that these companies would exploit their "monopoly" position and force up the

price of patented drugs.[18] Yet, ever since 1993, the average price of patented drugs has increased below the rate of inflation. For the last two years, prices have dropped by an average annual rate of two percent.[19] In Canada, the difference between the prices of patented and generic drugs is now about 20 percent.[20] Though the claim is made that the Patented Medicine Prices Review Board, set up by Bill C-91 to monitor drug prices and, if necessary, to roll them back, has contributed to price restraint, the actual number and scope of the PMPRB interventions have been modest.[21] Of more importance, one could claim, has been the consistently competitive nature of the pharmaceutical drug market in Canada over which the PMPRB has no mandate to regulate. In 1993, there were 45 drug companies in Canada providing therapeutic-class drugs. The largest held an eight-percent market share; the same is true today.[22] Canada's experience of relatively benign effects of increased patent production on the prices of pharmaceutical drugs is not unique, at least according to a major new study of nine post-IPR reform countries in the developing world by conducted by Richard P. Rozek and Ruth Berkowitz (1998).

Does this mean the empirical argument has been decided in favour of higher IPR? Not yet. On the whole, George Priest's words still ring true, "in the current state of knowledge, economists know almost nothing about the effects on social welfare of the patent system or of other systems of intellectual property" (Priest 1986: 21).

(2) The theoretical debate over stronger IPRs

Beyond the empirical results lies a theoretical debate as to whether weaker IPR benefit developing countries and stronger ones harm them (Oddi 1987). At the core of the debate lies the question of whether IPR are a true individually held property right or a monopoly granted by the state to encourage innovation. If the former, then improvements in IPR protection is presumably desirable, whatever the empirical results as to social costs. If the latter, then any change to IPR protections should be subject to some welfare test.

Much speculation has focused on why implementing stronger IPR protections in developing countries would fail a welfare test. Such reasons include the losses from (1) an inability to copy patented products cheaply and easily (as discussed above), (2) the lack of access to the latest technology and the subsequent dependency of developing countries on developed ones, and, more recently, (3) the creation of market abuses by companies holding monopoly patents. After discussing the core issue of the identity of IPR, I will address these three theories, based on a social welfare analysis, ranged against stronger IPR protection.

(a) Are intellectual property rights subject to the law or are monopoly privileges subject to competition policy?

The debate over the nature of IPRs, and patents in particular, goes back to the very first patent. When the city fathers of Florence granted the patent Number 1 to Filippo Brunelleschi, who had invented a loading crane for ships, their economic self-interest, not any sense of property rights, guided them. The preamble to this first patent bluntly states that "[Brunelleschi] refuses to make such machine available to the public, in order that the fruit of his genius and skill may not be reaped by another without his will and consent; and that, if he enjoyed some prerogative concerning this, he would open up what he is hiding, and would disclose it to all" (Bugbee 1967: 17). From this perspective, patents would appear as a regulatory form of monopoly created to serve the "instrumentalist" end of encouraging inventors to invent.[23]

Yet, if for the rulers of Florence and Venice (and shortly thereafter the German and Dutch trade cities) the granting of a patent was simply a calculation of costs and benefits, for Brunelleschi and inventive individuals who followed him it was a revolution in their economic and legal relationship to both the state and the broader business community. They held a property right, if only temporarily protected, to the relatively exclusive use and control of the physical and practical forms derived from their unique insights into the possibilities of matter. What they owned the state could not seize nor competitors steal. Thus from its beginning the patent embodied, in the words of Michael P. Ryan, "the philosophical tension between natural property rights and public welfare – enhancing incentives for risky investment" (Ryan 1998: 7).

One could, indeed, write the history of patent law as the shifting balance between the relative value of personal property rights and a mere incentive for innovation and investment. Deputies of the National Assembly during the French Revolution asserted that an inventor's property right in his discovery represented one of the "rights of man." They desired in part to restrict the state, and the aristocrats who controlled it, from exploiting productive and innovative members of the bourgeoisie. In contrast, Thomas Jefferson, worried less about aristocrats and more about the social value of proprietary knowledge, wrote Article I, section 8 of the Constitution to establish patents for strictly utilitarian purposes: "to promote the progress of Science and the useful Arts" (Bethell 1998: 262).

One might even conclude that personal interests will forever determine the debate. On the one side, inventors and their lawyers insist that intellectual property rights are about preventing theft. On the other, politicians and economic planners assert that patent "law" concerns the balance between industrial incentives and the diffusion of useful

knowledge. Yet, there are three reasons to choose the property rights side in this debate: convention, the evolutionary nature of rights, and capitalism's revealing of the value of IPRs as rights.

(i) Convention Convention, too often, is underrated when compared to supposedly objective analysis. It is convention that gives patent the legal form of a property right and determines its specific length. Economists did not determine that the socially optimal length of a patent should be 20 years; indeed, there are probably too many uncertainties ever to decide such a question. (One could say that patents are not about the duration of an intellectual property right at all, but rather about the length of time the state is willing to defend it on behalf of the inventor.)

A maddening feature of convention is that history provides few straight answers as to why patents evolve from something close to blackmail in Renaissance Florence to a right defined and protected by the common law in the modern Anglo-American tradition. Still, convention, though malleable, deserves respect even if its underlying logic may appear elusive.[24]

There is also the possibility that convention generates its own strong economic efficiency argument for IPR as rights.[25] That argument is the same as the efficiency argument for the common law made by such scholars as Richard Posner, William Landes, and Richard Epstein (Landes and Posner 1987, 1988; Epstein 1995). They contend that, for reasons of historic accident and particular human ingenuity, the English common law developed a set of procedural and substantive principles that over time have generated economically efficient answers to disputes (Landes and Posner 1988: 10, n. 52). Epstein identifies the few "simple rules" that, with the intellectual discipline imposed by the doctrine of *stare decisis*, gave the common law its capacity to lead to efficient results. These are "individual autonomy, first possession property rights, voluntary exchange, control of aggression, limited privileges for cases of necessity, and just compensation for 'takings' of private property" (Epstein 1995: 15, n. 52). These are the same principles that apply, more or less, to intellectual property today in developed countries.

In the end, one can agree that holding a patent differs from owning a shotgun. The distinction between them is that of possessing a thing as opposed to the opportunity to make use of novel and useful idea or insight. Yet, the mutual quality of exclusivity before the eyes of the law binds them together. If it walks like a duck, sounds like a duck, and looks like a duck, it probably is a duck.

One qualification in the context of negotiating IPR in the FTAA is that most Latin American countries have a Civil-Code tradition. As a result, their legal systems do not possess clear counterparts to *stare decisis*

and other common law principles.[26] Nevertheless, Civil-Code reasoning itself has changed around the world and the blending of Civil-Code content and common-law reasoning has been a hallmark of this century, particularly as legislation has gradually codified case law (Merryman 1969). Models for further convergence do exist, such as the legal system of the Canadian province of Quebec.[27]

(ii) The evolutionary nature of rights The power of convention is such that even though IPRs may not have begun as a property rights, they have evolved towards that identity; that is, that their nature as property rights has been discovered gradually over time. This begs the question: what, then, are rights? Simply put, they are protections of behaviour and property that a society decides at some point to place outside of a cost-to-benefit analysis (Mattei 1997: 415).

Critics contend that the defenders of IPRs as rights ultimately base their position on a notion that IPR are natural rights as defined by John Locke (1690/1980). That is, if we have a natural right to own the fruits of our labour, we have no less a right to own the fruits of our ingenuity. What they attack is not the strength of the proposition but rather the somewhat mystical nature of natural rights. It is a reflection of our age that an appeal to the laws of nature falls under immediate suspicion. Nevertheless, what is important about IPRs as rights is not their ultimate source. More significantly, they, as with other property rights, may be seen to represent pre-transactional social values that provide a dividing line between the state and the individual as to the control of material possessions and of physical and mental effort. In contrast, if patents are construed as welfare-based regulations, then they constitute post-transactional distributions of wealth guided by the state towards a variety of social goals (Epstein 1998).

A risk exists in trying too hard to deny the development of IPRs into fully accepted property rights. As Roger E. Meiners and Robert J. Staaf conclude "there is no basis to classify intellectual property as the grant of monopoly rights, unless numerous other rights that involve exclusion, such as home ownership or labour services, are classified as monopoly rights" (1990: 911, 940). The further the state comes to see itself as the creator of value, the greater the temptation to use supposedly neutral utilitarian analysis to further its own, or rather its employees and beneficiaries, self interest.

(iii) The nature of IPRs changes as capitalism changes Just as the Renaissance created "new facts" as to the nature of capitalism and the nature of man, thus altering profoundly the treatment of innovation, so, too, may contemporary thinking about capitalism and the nature of man re-

shape the value afforded to intellectual-property protections. It may well tip the balance farther towards a property-rights based conception of intellectual property. The impetus—the "new facts"—lies beyond the obvious, an economy increasingly driven by technological advances and thus more heavily dependent upon proprietary knowledge, be it in the new, computers and software, or the traditional, medicine and agriculture. This greater dependence on intellectual property is not changing the nature of modern capitalism but rather allowing it to operate at a *qualitatively* higher level of efficiency.

New communication tools have sped the diffusion of both market information and production, thus speeding up the articulation of consumer preferences and the ability of producers to respond. It is no longer necessary to have either a central market or a central factory. Technology has simplified and automated monitoring and process functions, thus reducing both transaction costs and personnel costs relative to a unit of economic output. Technology has allowed us to become more productive while at the same time subjecting us to fewer hierarchical and personal controls. Just as the innovations of banking and insurance awoke Florence to the possibilities of early capitalism, the greater economic role of intellectual property has brought into clearer focus Friederich Hayek's vision of "extended order" through the "rule of law."

As entrepreneurs flourish and more individuals work for themselves (roughly one in every six North Americans), the concept of productive work in a capitalist economy has embraced new decentralized configurations. Work can be self-directed. High levels of economic activity can be sustained by networks of self-contracting individuals and not just by corporations enjoying economies-of-scale. This emergent free-agent capitalism will, in turn, give greater weight to another insight of Austrian economics: that our "producer surplus" lies less in the hours of our labour and more in our creativity (Postrell 1998: 35).

It would be insufficient to argue circularly that current capitalism's success with "owned" knowledge (patents) proves the case that property law, not policy wishes, guide decision-makers. Just as in the Renaissance, economic opportunity is alone an incomplete force to change attitudes. As in the fifteenth century, the legal recognition of intellectual property arose in response both to a new form of economic organization and to a new sense not just of self but of its abstraction—the individual. If we are not surprised today that the nature of the economy is in flux, neither should we be if our ideas of the individual are shifting. At least, Western history shows individualism to possess an ontology or a story of change (Taylor 1989: 8–14). This cannot help but alter the cultural boundaries within which we cast the nature and

treatment of innovation and innovators. After all, it was a champion of the individual, not of economics, Lysander Spooner, the nineteenth-century libertarian, who first coined the potent phrase "intellectual property," recasting unalterably the debate (Bethell 1998: 259, n. 49).

Will our society, in the new millennium, recognize even greater individual autonomy, thus further shielding IPR from state interventions? It should—but wishes are poor predictions. Still, if the hard-edged men of Renaissance Florence could figure out the advantage of patents in the first place, perhaps we can discern the added value of more firmly conceiving of intellectual property as individual property before the law.

(b) The welfare tests for not strengthening IPR

The point here is not to argue against standard normative economic analysis of intellectual property protections. It is just to point out that several of the efforts to do so have been fraught with problems, perhaps less the result of the underlying economic methodology and more that of the researchers' biases in scope, duration and policy. The whole area deserves a thorough intellectual audit (Kuo and Mossinghoff 1998: 537).

(i) The cost of copying A welfare analysis might easily prove governments in developing nations should encourage the free copying of foreign technology in order to jump-start domestic industries at a relatively low cost. There is, however, one good reason to be skeptical that things will work out that way—the behavior of individuals in the market place typically frustrates the best-laid designs of government planners.

The following scenario demonstrates one possible outcome. Suppose a country orders the compulsory licensing of a multinational corporation's patent, then awards the license to a domestic producer. That producer now possesses a "free good." That does not mean, however, that he has withdrawn from the market and all of its familiar dynamics and, thus, that the consumer will benefit from lower prices. First of all, the domestic producer will likely charge a "shadow price," a price that is just below what patent-holders charged, knowing that the market will bear that price (Posner 1992: 16). Though the producer will try to maximize his output with lower prices, he remains committed to increasing his surplus, not the consumer's.[28] In addition, the producer may also wish not to upset the politicians and bureaucrats who control the compulsory licenses.

As a result, the consumer's surplus may be quite small. It is likely to be smaller when the patent holder is forced to retreat from the market and the domestic producer no longer has to worry about competi-

tion in future price-setting decisions. More seriously, consumer could face the loss of potential surplus gains from new and improved products as patent holders delay entry into that market.[29] One should not, however, be too much of an alarmist. Patent holders might still sell their products in risky markets, just more cautiously.

One could argue that if compulsory licenses were granted to multiple domestic producers, then this would stimulate the competition necessary to improve the consumer's surplus. Further research is needed to learn the extent to which compulsory licenses have been assigned to single or multiple domestic producers. I suspect that single producer licenses predominate for the reasons given below.

Public-choice theory provides a reason that compulsory licensing might lead to unintended consequences.[30] Compulsory licensing would appear to be a form of "producer capture" by regulatory bodies. That is, domestic producers in developing countries protect their own interests by convincing governments of the need to issue compulsory licenses of the patents of multinational corporations (Griffitts 1996: 283; Shain 1994: 182). After the decision has been made, market tests are concocted to justify the expropriation. The political risk attached to compulsory licensing is initially quite low, as multinational corporations are generally unloved and unappreciated creatures of the United States and Europe (Yelpaala 1985: 246–47). The government officials who dispense these "rent-seeking" licenses do so for reasons ranging from the satisfaction of administering "industrial policy" to the public acclaim of protecting national economic sovereignty to outright bribery.[31]

It is hard to see how the consumers' interest would have a high priority in mutual rent-seeking agreements between domestic producers and government (Dunoff 1996/1997: 772–73). In short, the so-called economic benefits of compulsory licensing may prove to be merely the transfer of income from politically docile consumers to politically potent producers (MacLaughlin, Richards, and Kenny 1988).

The irony here is that domestic producers may not gain as much in the long run as they had expected. Economist Gordon Tullock observed that the profit record of companies protected by tariffs and government regulations did not appear to differ substantially from those not protected. As a result, he postulated that any one company's gains made from government privileges, such as compulsory licenses, will not last (Tullock 1993: 224–35). They will be caught in a transitional-gains trap in which bureaucrats and politicians will seek to capture their own rents from favoured companies through a variety of means.[32] There is also the risk that the government will later cancel IPR privileges, such as compulsory licenses, in order to achieve more desired gains, such as trade access, in multilateral trade agreements.

(ii) Lack of access to technology and dependency A popular view holds that foreign technology is a necessity *sine qua non* for economic growth in the developing world (Kuo and Mossinghoff 1998). As a result, it is less important how technology is acquired than that it is. Presumably, lower IPR standards best assure access to new technology (Oddi 1987).

The discussion mirrors the error in the post-war development debate that simple capital accumulation could drive economic development (Cao 1997: 551–52). That view is under siege now that the billions spent in development aid are increasingly judged to have produced only marginal benefits for the average citizen in the developing world. To paraphrase the English economists, Peter T. Bauer and Basil S. Yamey, substituting the word "technology" for "capital," "[i]t is often nearer the truth to say that [technology] is created in the process of economic development than that development is a function of [technology] formation" (Waters 1998: 109). Few would deny that new technology plays some role in the economic growth of developing countries. Still, the means by which it was acquired might indicate the quality of pre-transactional property rights, which may help to determine the long-term economic benefits derived.

The focus on foreign technology may also perpetuate the now problematic "dependency" theories of Raul Prebisch, Argentinian social scientist and former director of the United Nations Conference on Trade and Development (UNCTAD).[33] He assumed that technology could only come from the Center, and that dependency of Periphery on the Center is an active cause of under-development.[34] Granted, many Latin American countries have not had the experience of strong IPR and may not fully understand its positive effects on indigenous technology.[35] Still, there is no reason to assume that these countries could not generate as many advances in knowledge on a per-capita basis as any other. The problem lies not in the intelligence and creativity of the citizenry but in the institutional protections afforded the fruits of their labour (Edge 1994: 193–99).

Among the more critical factors is the institutional framework that determines the incentives and transactional costs of contracting. As Douglass C. North asserts, it is institutions and ideology that together shape economic performance. Institutions affect economic performance by determining the costs of transacting and producing. The work of North and others such as Oliver Williamson, referred to as the New Institutional Economics, builds upon the seminal ideas of Ronald Coase in his two now famous articles on the nature of the firm and on transaction costs (see North 1990; Williamson 1987; Coase 1988: 33–35, 174–79).

Briefly stated, one of Coase's fundamental insights is that the sustained economic success of a country does not depend upon any initial or subsequent endowment of capital and technology but rather upon its ability to maintain institutions of formal and informal rules that keep low "the costs of measuring the valuable attributes of what is being exchanged and the costs of protecting rights and policing and enforcing agreements" (North 1990: 27; also Dixit 1996: 37). At the core, reducing transaction costs requires a stable, clear, and enforced system of property rights (Trachtman 1997). As Armen Alchian pointed out over 30 years ago, "[t]he existing system of property rights establishes the system of price determination for the exchange of, or allocation of, scarce resources. Many apparently diverse questions come down to the same element—the structure of property rights over scarce resources. In essence, economics is the study of property rights" (Alchian 1967).

IPRs are part of a legal and institutional framework that, by lowering transaction costs, can create the conditions necessary for economic growth. If strong protections can be created and held in place, contractual efficiency should ensure that not only will new local technology be discovered but, more importantly, domestic and international technology can be fully exploited. Faith in this possibility may explain why both EMBRAPA, the research arm of the Brazilian Ministry of Agriculture, and ABRABI, an association of Brazilian biotechnology companies, have come out in support of their country's upgrading IPR protections.[36] Contractual efficiency should also lower the costs and improve the results of local industries receiving, adapting, and utilizing foreign technology. It is only an assertion, but one worthy of further research, that overall contractual efficiency could also compensate for the costs and inconveniences to second stage innovation caused by researchers having to invent around existing patents (see Merges and Nelson 1990). A society's overall contractual efficiency, however that may be measured, may prove critical to its ability both to adapt and invent new technology.

(iii) IPR and anti-trust law: an uneasy mixture The latest welfare test of IPR has arisen from the application of competition policy or anti-trust law in the American vernacular.[37] The equation of IPR and market "monopolies" has raised the possibility of new constraints on the exercise and scope of IPR.

Whether patents, for instance, should be subject to anti-trust policies is still a fluid question. Kenneth W. Dam argues that the use of the word "monopoly" to describe patents was a political definition of the Depression-era American Supreme Court and the result of the

Depression rather than a product of economic analysis (Dam 1994: 268–70). Still, the United States through case law, and other countries through legislation, have for some time restricted some actions by patent holders if it is determined that their patents create "market power." The American courts have developed the doctrine of "patent abuse,"[38] including the grounds upon which a patent holder may be forced to grant a license.[39] They have also developed prohibitions against patent holders' linking the grant of a license to the purchase of another product.[40]

Linkage is the issue largely at heart in the American Justice Department's current action against the Microsoft Corporation. It is alleged that Microsoft Corporation would not license the Windows Operating System to computer manufacturers unless their Internet Explorer was included.[41]

The risk exists that the use of anti-trust doctrines may unintentionally reduce IPR benefits such as the incentive-to-invent.[42] Potential for misuse grows out of a fundamental misunderstanding of the nature of patents. A patent does not guarantee any position, dominant or otherwise, in a market. It is simply one protection afforded to an individual or company seeking to make an economic rent from a unique innovation. By its definition, a unique innovation creates a unique new market (Gilbert and Shapiro 1996: 249-251). A patent only grants exclusivity to the invention, not to the market served by the invention (Dam 1994: 270). An invention, by its success in a market, may actually stimulate research by others to re-create that success with a new product.

The important questions about the market power of a patented product are whether substitutes exist for a new product—is the market contestable—and whether other individuals have the opportunity to invent new substitutes. If the answer to both is "yes," then there cannot exist a monopoly as understood in economics. In practice, the dominant position of any new bit of intellectual property in the market has not lasted for long and usually not as long as the patent or copyright protection afforded (Brenner 1990). Put another way, Windows™ will eventually face much stiffer competition than it does today, which will arise sooner rather than later. The very ups and downs of the Microsoft case suggest great caution in judging the market effects of patents in an anti-trust legal framework.

To date, international trade agreements have incorporated only a few, relatively ill-defined, anti-trust policies. The TRIPS agreement, however, creates the possibility for the inclusion of further antitrust measures (TRIPS Agreement: art. 2[1]). The issue is a familiar one in which some welfare test rather the procedural protections of property law, might determine the extent of IPR protections.

Indeed, Michael Trebilcock and Robert Howse have argued that countries should be able to use their IPR standards to their competitive advantage. By the same measure, they would also design other forms of regulation, such as environmental and health and safety standards to advance domestic industrial policy (Trebilcock and Howse 1998a, 1998b). They argue further that international trade agreements ought to entrench the flexibility of standards to ensure that such a comparative advantage can be exploited.

One can agree with Trebilcock and Howse that countries should have the scope under any trade negotiation to tailor their regulatory regimes to their advantage within, of course, the bounds of their international commitments. Intellectual Property Rights, however, should be considered part of a country's legal foundation of rights and not of its regulatory regime. As said earlier, IPRs are more properly part of a social pact on pre-transactional values rather than the distribution of post-transactional income. The court of world opinion would rightly condemn a country if it argued that upholding human rights imposed a unfair competitive disadvantage. Property rights are human rights and intellectual property rights are property rights. All deserve respect.

(3) IPR as an integral part of the critical package of rights

In sum, IPRs are just one, perhaps small, part of the complete package of individual rights upon which sustainable economic opportunity and development ultimately depends (Doane 1994: 469). If a country chooses to adopt one set of accepted rights because they are valued and convenient, it cannot then ignore other rights or downgrade them to regulatory options, without weakening rights as a whole. This is consistent with the oft-heard argument that developing countries pursue an immature and short-sighted strategy in solely pursuing property rights while, at the same time, largely ignoring civil and political rights (Gutterman 1993: 122).

The value of adopting stronger IPR protection in developing countries lies in the additional pressure to strengthen their institutional capacity to define, monitor, and enforce property rights as a whole (Stanback 1989: 523). In this light, Edmund Kitch's "prospect theory," which argued that the value of IPR lay in its ability to control the development of breakthrough discoveries deserves a more positive evaluation than it seems to be getting.[43] The short-term costs include the upgrading of judicial, legal, and administrative systems, the training of the legal community, and the bolstering of private managerial competence to contract and license technology (Reichman 1996: 372–79). These are comparatively small costs in dollar terms but much larger in the sense that they depend on conveying a vision of why and how they

will benefit a country. The largest cost is the cost of restraining governments from exploiting IPR in order to play industrial favorites for the benefit of some producers, politicians, and bureaucrats (Reichman 1996: 372–79).

In a climate of robust property rights, governments are not unduly restrained. They may choose to expropriate intellectual property as long as due compensation is paid. Consistent with the rule of law, governments can use creative measures such as patent buy-outs to ensure the rapid diffusion of technology and knowledge. This has happened before. In 1839, the French government purchased the patent on the Daguerreotype process and placed it in the public domain.[44] That decision allowed France to lead the world in the creative development of photography during the subsequent century.

(B) If the negotiation of higher IPR standards is an effective lever to advance free trade, then let it be used to greatest effect.

Though often questioned and challenged (Irwin 1996), free trade remains the dominant policy to improve the welfare of individuals in the world. Despite the stunted "import = bad, export = good" mentality of the seven GATT Rounds, they have brought the world closer to realizing the benefits of global free trade. Average global tariffs on manufactured goods have fallen from 40 percent to three percent since the implementation of the Uruguay Round cuts have been implemented (Irwin 1996). Given the importance of trade in the post-war economic growth of developed and developing countries, it is surprising that it took so long to examine the state of domestic IPR regimes, both as source of potential non-tariff barrier to trade and as a bargaining chip in multilateral trade negotiations.

(1) Why did the rise of counterfeiting lead to the linking of IPR and trade?

IPR did not arise as a trade issue out of some theoretical appreciation of the benefits of free trade.[45] The genesis lay in the concluding years of the Tokyo Round when the United States sought a new lever, trade access, to suppress counterfeiting.[46] By raising the matter in the GATT talks, American negotiators sought to bargain wider access to the American market for improved IPR enforcement in other countries. Most nations, unfamiliar with this novel linkage, resisted and nothing initially came of the American initiative. Merits of this particular linkage aside, it made strategic sense to introduce at least some linkages in the GATT talks because of the wider scope for concluding complex agreements when multiple trade-offs are available.[47]

The United States's concern over counterfeiting seemed to some an over-reaction, given both the small percentage of the American economy dependent upon exports (between 10 and 15 percent) and the relatively small amount of lost revenue, which even the most generous of estimates placed at between $15 billion to $20 billion out of an annual foreign trade of $850 billion in 1996 (Aronson et al.: 5). Yet the intensity of the American concern reflected the concentration of those losses in three key industries: computer software, motion pictures, and pharmaceutical drugs (Mossinghoff and Oman 1997: 691–92). These industries, unlike others, purportedly receive roughly 50 percent of their total receipts from overseas markets.

As preparations began for the Uruguay Round, the United States re-thought their way of introducing the counterfeiting issue. As the Americans deliberated, they realized that pursuing counterfeiting alone was the equivalent of looking down the wrong end of the telescope. To achieve any progress in the area of counterfeiting meant addressing the broader issue of intellectual property. Under this view, counterfeiting was just one manifestation of the fragmented and porous IPR regimes that presented American businesses with both the prospect and reality of lost profits due to illegal or legal copying (Mossinghoff and Oman 1997: 691–92).

The American initiative to raise IPR in trade negotiations also reflected a dissatisfaction with the substantive international IPR standards maintained by the World Intellectual Property Organization (WIPO) and the enforcement mechanisms provided by the International Court of Justice (ICJ).[48] To be fair, WIPO and the ICJ were never intended to be the cop and judge of international intellectual property.[49] They were designed as means to help countries look after their own IPR regimes (Trebilcock and Howse 1998a: 258). They faced the challenge of any multilateral organization in setting an international agenda: in order to achieve consensus among the member states, some 129 in the case of WIPO as of 1995, substantial compromises have to be made. In the case of WIPO's model framework law for IPR, exceptions placed the level of protection at the lowest common denominator. As a result, it has continued to lose relevance to the actual contemporary practice of trade in goods and services with significant intellectual property content (Trebilcock and Howse 1998a: 263). The ICJ, suffice it to say, has never actually heard an IPR case and, if it did, it would only serve to clarify what the WIPO model framework law states (Cordray 1994: 131).

The American decision to pursue IPR standards in the Uruguay Round also reflected a need to shore up domestic support for trade liberalization (Schott 1994). The inevitable reaction to any major effort to

lower tariffs is fear of new competition in goods and wages. Ross Perot, Patrick Buchanan, and the AFL-CIO all enjoyed substantial amounts of media attention by playing to the "blue-collar" fears of factories packing up in the middle of the night to sneak off to Tiajuana (Schott 1994: 32–33). Allies were needed. What better allies than the industries who stood the most to gain. It is not unfair to say that the pharmaceutical, software, and entertainment industries were maneuvered into fighting some of the American administration's trade battles.[50]

(2) The origins and significance of TRIPS

As a result of the efforts of the American government, the Uruguay Round established a separate set of discussions to reach a minimum set of standards for IPR protection among the GATT signatory nations. These talks ultimately led to the 1994 TRIPS agreement. The content of the discussions has been closely analyzed (Schott 1994: 30). Most agree the nub was a global package deal: in exchange for a agreement on an international standard for IPR, the United States would provide greater access to its market to the agricultural and textile products of the developing world and would pressure the European Community to grant the same (Cordray 1994: 143).

The TRIPS agreement, building on the principles of the Paris and Berne conventions, obliged signatories, first, to adhere to an international baseline for standards of protection for all areas of intellectual property--patents, trademarks, copyrights (TRIPS Agreement: art. 2[1]). Second, TRIPS requires effective enforcement measures, both at the border and internally (TRIPS Agreement: arts. 41–61). Third, the signatories must adhere to the dispute settlement provisions of the World Trade Organization (WTO) (TRIPS Agreement: art. 64).

The prospect of TRIPS helped to motivate American support for the Uruguay Round. Without a strong commitment by the United States Government, the Uruguay Round could have failed to advance the cause of free trade (Schott 1994: 30). It nearly did anyway. Though some developing countries questioned the price of TRIPS in terms of lost economic sovereignty, the gains from increased access for trade proved irresistible, particularly considering the alternative of increased unilateral trade sanctions under the United State's Section 301 and Special or "Super" 301 processes.[51]

The FTAA presents one more opportunity to bring global free trade closer to reality. It would set the example of an entire hemisphere removing tariffs and other barriers—if one takes at face value the declaration of the 34 national leaders at the 1994 Miami Summit of the Americas. The prospect of improved IPR standards may once again persuade the American government to take a strong leadership role.

It would be misleading and counter-productive to suggest that the current negotiations consisted in nothing more than the United States trying to extort concessions from its reluctant neighbors. First, many hemispheric nations are currently upgrading their IPR for purely domestic reasons (Edge 1994: 202–04. Second, and more importantly, after the rebuff of Chile's fast-track request, it remains difficult to assess the United States' will to push forward on hemispheric trade deals (Otero-Lathrop1998: 120). The American administration still has to convince the leaders of influential industries such as agriculture and textiles, which do not have an immediately clear stake in improved IPR, that the prospect of increased competition would be offset by new trade opportunities for all American industries. In a strategic sense, the developing nations of the hemisphere rely on the authority of the President to overcome protectionist lobbies in the Congress (Otero-Lathrop1998: 121–22). A weakened presidency leaves doubt as to the resolve of America's trade leadership (Gantz 1997: 391-405).

(C) TRIPS itself is an evolutionary step towards a yet unknown but implicitly acknowledged international standard

TRIPS is a revolutionary agreement; that no one disputes. It was the first time that an international standard of intellectual property was agreed upon by a majority of nations. Virtually no country has avoided making some commitment to change to its IPR regime. J.H. Reichman and others wisely counsel that realizing practical gains from the textual advances of TRIPS will take far more time and effort than many in the developed world expect (Reichman 1993: 261–63). Yet, TRIPS is not an ideal document. Much is unduly vague and complex.[52] TRIPS' central accomplishment is an acknowledgment that an international standard exists rather than a definitive formulation of such a standard (Dreyfuss and Lowenfeld 1997: 279).

The content of TRIPS itself can be described as defensive. Its articles characterize the existing diversity of IPR regimes, rounding them up rather than down, then apply to this picture a "standstill" provision. The goal of TRIPS for American and European negotiators was more to restrain developing countries from any further erosion of IPR protection and less to revise IPR standards substantially upwards.[53]

TRIPS left issues both of substance and of language unresolved. For instance, the major issues include what restrictions will be imposed on compulsory licensing, the scope of price controls, what to do when patents expire in one country but not another, and how to provide better enforcement at the border (Wolfson 1994: 557–58). In addition, areas such as the treatment of encrypted satellite signals, advanced biotechnology,

and commercial data bases were left off the table because of a lack of information or of consensus.[54] It is unclear what is meant by terms such as "significant investment" (TRIPS agreement: 1224) "taking account of the legitimate interests of third parties" (1207), and the limits on remedies (1215). Other terms are sprinkled throughout the text, words such as "substantially" (TRIPS agreement: 1174), "reasonably" (1173, 1183), and "legitimate" (1170, 1197), all of which invite misunderstanding. TRIPS cannot be considered as the final word on an economically efficient and legally coherent global IPR standard.

Both developed and developing countries stand to gain from a prompt outlining of such an optimal global standard. For developing countries, the benefit lies in reducing uncertainty in domestic policy and ameliorating international commercial conflicts created by the constant flux in IPR obligations.[55] The fact that different countries have different capacities to implement such a standard should not deter the effort to define it. It is possible that countries may agree to a IPR standard that they simply do not have the institutional capacity to translate into reality. Yet, they should be able to remove the most offending practices such as discriminatory compulsory licenses.

Non-compliance on the basis of under-developed institutions is in some sense preferable to non-compliance on the basis of unreformed legislation and regulation, though complete compliance should remain the priority. The former is a matter of time, the latter a matter of political determination. By that I mean non-compliance on the basis of institutional capacity is preferable to active non-compliance because it shifts the emphasis to technical issues and away from competing visions of political economy (Edge 1994: 202–04). Opinions differ, however, on how far you should let the cart get ahead of the horse.

It would be a lost opportunity not to employ the FTAA as a means to define further an optimal global standard, notwithstanding the possibility of conflict. Any serious set of negotiations needs some conflict to expose and define the interests at work, ultimately revealing possible compromises. At a bare minimum, the FTAA should ensure no regression towards the notion of two separate IPR standards, one for the developed world and one for the developing world. To do so would impose the model of aboriginal Indian reservations on international IPR law, superficially protective and ultimately debilitating.

(D) The origin of the FTAA in NAFTA suggests a similar or higher standard of IPR protection

More significant than TRIPS to the future of the FTAA negotiations is the IPR chapter of the 1993 North American Free Trade Agreement (NAFTA) treaty among the United States, Canada, and Mexico.[56] The

FTAA came into being as a possible successor to NAFTA. That was the rhetoric, at least, of the 34 leaders who met in Miami, Florida in April 1994 to declare their commitment to eliminating hemispheric tariffs by the year 2005. Since then, the Mexican currency collapsed, President Clinton failed to secure "fast track" approval from the Congress for Chile's entry into a NAFTA-like trade agreement, and strong critics of free trade on both the left and the right have emerged in virtually every country (Bussey 1998b). Still NAFTA remains the model for the FTAA.

Does that then mean that the IPR in the FTAA should resemble the content and structure of NAFTA? The answer is both "Yes" and "No." Yes, in the sense that Canada, the United States, and Mexico would have just cause to deny the complete tariff benefits of an expanded NAFTA to new signatories who tried to "cherry pick" which NAFTA obligations they would adopt. NAFTA was signed as a package deal and was only possible because of its all-or-nothing structure of negotiations (Bussey 1998a). Each country weighed the trade-offs in NAFTA, then signed the agreement because as a whole it promised a net benefit.

Yet every negotiation should have its own dynamic based on an understanding of underlying commonly held principles. What is important is some shared vision as to what IPR protection should produce. Such a vision is not exclusively American, Canadian, or Mexican.

It is also worth noting, as Robert M. Sherwood and Carlos A. Primo Braga have, that a common base for a hemispheric IPR agreement also lies in the intensification of the regional integration accords (RIAs) such as MERCOSUR, the Group of Three Accord and Andean Common Market (ANCOM), through which IPR harmonization is already being addressed (Sherwood and Primo Braga 1996).

(E) If IPRs are going to be strengthened in the western hemisphere, let's go once, not twice, to the dentist, especially with a "Millennium Round" of global trade talks on the horizon

(1) The trouble with the TRIPS deadline

Though good reasons exist to proceed swiftly to the negotiation and implementation of an IPR agreement in the FTAA, strong impediments to prompt action remain. All countries have until 2005 to negotiate the FTAA. Some countries have until 2005 to implement TRIPS fully.[57] Countries—taking the line of least resistance—could argue that, if they have until 2005 to implement TRIPS, there is no reason for them to negotiate a whole new set of IPR obligations in the FTAA. Such a position, however, could jeopardize the current opportunity to put the IPR issue to rest for the foreseeable future.

An unusual feature of TRIPS was the comparatively long deadline set for developing nations to implement the agreement. Developing countries already in transition away from centralized economic control may postpone some of their TRIPS obligations until January 1, 2000. Countries who did not have product patent protection laws for advanced items such as pharmaceuticals at the time of signing, have until 2005 to comply. The very least developed countries have until 2006 to raise their patent protection to the TRIPS standard.[58] In contrast, under NAFTA, Canada and the United States had to give immediate force to the provisions on January 1, 1993.[59] Mexico had a grace period of up to three years on some of its obligations.[60]

Two reasons explain the extended implementation period in TRIPS. It reflects, to a degree, the very uneven state of substantive IPR law and enforcement mechanisms among countries. No one would dispute that developing countries face difficult challenges in bringing the law and the reality of intellectual property up to the level of TRIPS. The possibility exists that the actual commitment to strengthened IPR by some countries was marginal at best.

The long deadlines of TRIPS have likely tempted some current government leaders to avoid dealing with the state of their country's IPR protections. Why bother when the deadlines create the opportunity to pass the problem on to a potential successor, who would be the one to face the political and economic fallout that might accompany any upgrade of domestic IPR standards to the TRIPS level. It is relatively easy to agree to a difficult policy that someone else will have to implement. The deadlines also raise the possibility that succeeding governments, having never signed the original agreement, may not consider themselves bound to it to the same degree as the previous administration.

In Canada, it was a Progressive Conservative government under Brian Mulroney who upgraded the patent laws in 1993 to provide full 20-year protection (Greenspan and McIvoy 1998). Four years later, Alan Rock, the Attorney General of the new Liberal government, was publicly speculating that the term of patent protection could be shortened from 20 years (McArthur 1998).

Long deadlines invite failure and in the absence of sensible deadlines, it is responsible to press for accelerated implementation. If the FTAA negotiations on IPR can be fast-tracked, the nations of the western hemisphere could reach a one-time agreement on IPR standards and move on a single implementation schedule. If there are two overlapping implementation schedules, first TRIPS, then FTAA, it will lead to unnecessary friction. A one-shot implementation schedule is possible given the limited substantive differences between TRIPS and NAFTA's Chapter 17 (see Question II, below).

(2) Millennium Round

The prospect of a "Millennium Round" of WTO talks should give a special impetus to fast-tracked FTAA IPR negotiations with a single short implementation schedule. The FTAA could prove the testing ground for the "Millennium" IPR standard, with the western hemisphere countries pulling ahead of the rest of the world by already having such a standard in place. The President of the European Community, Leon Brittan, has already issued the call for a "Millennium Round" of WTO talks. President Clinton made a similar plea in his 1998 State of the Union Address. Sundry scholars, politicians, and business people have supported this initiative.[61] If a "Millennium Round" begins, say in the year 2000, two things are possible. First, the FTAA talks could be subsumed into it. Second, a TRIPS II could begin.

This is not to suggest that the FTAA could prove to be a waste of time and effort. On the contrary, the FTAA could deliver a NAFTA-level of IPR protection that would serve as a world standard. In addition, with an accelerated implementation schedule, the FTAA nations could, in one shot, reach their TRIPS, FTAA and future TRIPS II obligations. If that is achieved, the issue of IPR could finally be removed from both the international agenda and the domestic agenda of developing nations.

At any rate, even if the Millennium Round absorbs the FTAA, the FTAA will have proven beneficial as a training exercise for both the developing and developed countries of the hemisphere. For developing countries in South America, the FTAA provides an excellent capacity building exercise. They are learning how to handle multilateral trade negotiations of almost incredible complexity more aggressively and effectively.[62] In part, this new-found confidence is the result of the smaller scale and tighter focus of a regional negotiation. The developing countries also have the opportunity to re-affirm among themselves the growing Latin American consensus regarding what stimulates economic growth and the role of government in its achievement.[63]

For the United States, the FTAA provides lessons in both domestic and international trade politics. For one, international trade leadership depends upon first securing domestic support for the basic goals sought. While the FTAA negotiations can and will go ahead in the absence of the "touchstone" of United States approval for "fast track" negotiations with Chile, America's resolve for tariff reduction is being questioned (Scoffield 1998). In the context of the FTAA IPR negotiations, key concessions will not be made until that resolve is clarified.

Whether IPR is addressed in the FTAA or in a TRIPS II during a "Millennium Round," it will be addressed. The nations that have developed the capacity to negotiate the minutiae of IPR will have the best opportunity to assert their various interests.

Question II If higher than TRIPS protection should be negotiated in the FTAA, what should be the level and scope?

NAFTA's Chapter 17 on IPR compels not only the discussion of IPR in the FTAA but also in large part determines its content. That should not prove unduly burdensome because NAFTA's IPR provisions are not so dramatically different from those that TRIPS provides.

Chapter 17 closely follows that of the TRIPS Draft Final Act (Dunkel Draft) brought to the table for negotiations in 1991 by Arthur Dunkel.[64] The compromise text ultimately adopted in TRIPS did not differ substantially in its scope from the Dunkel draft.[65] TRIPS differs from the Dunkel Draft mostly in its continuation of the numerous exception to national treatment obligations contained in the Paris Convention and the Berne Convention (TRIPS Agreement: art. 3(1) & 3(2); Caviedes 1998). In contrast, NAFTA only allows for a few, precisely detailed, exemptions from national-treatment obligations.[66]

The best known national-treatment exemption in NAFTA is for Canada's cultural industries.[67] It is a suspect exemption.[68] Canadian commentators have shown repeatedly that the policy owes little to any nuanced or profound understanding of culture, Canadian or otherwise (Stanbury1998). The absurdity of it all can be seen in the aftermath of the WTO ruling against the Canadian penalties levied on split-run magazines.[69] The government now proposes to restrict Canadian companies from advertising in American magazines sold in Canada although Canadian magazines that are sold in the United States, albeit in small numbers, are actively seeking advertising from American companies (Urquhart 1998: B12). At the time of this writing, a pointless trade war remains a possibility and both countries would lose by any economic or diplomatic yardstick.

NAFTA represents a landmark treaty both in its detailed description of IPR obligations and various mechanisms for dispute resolution. Chapter 17 has four parts. First, it sets forth general provisions on existing IP conventions, national treatment, and anti-competitive practices (arts. 1701–1704). Second, it defines obligations regarding IP standards in the areas of copyrights, patents, trade secrets, and industrial designs across a number of industries (arts. 1705–1713). Third, it introduces obligations regarding enforcement measures, including access to civil courts, judicial review and interim injunctions, and requires that these do not become barriers to legitimate trade (arts.

1714–1718). Fourth, it contains miscellaneous provisions, such as technical cooperation (art. 1719).

As noted, NAFTA, excluding the exceptions to national treatment, closely resembles TRIPS. One commentator notes, "The intellectual property provisions of the NAFTA were designed with the pending TRIPS agreement in mind. In most aspects TRIPS affords roughly the same protection for intellectual property as does the NAFTA" (Schott 1994: 122).[70]

As these issues are generally resolved in NAFTA, the FTAA IPR negotiations should move on to tackle thornier issues. Sherwood and Braga (1996) identify a few key "tough issues" that the FTAA IPR negotiations could address. These issues include compulsory licensing, cultural exemptions, "pipeline" protections, higher life forms, new plant varieties, information network systems, trade secrets, geographical exhaustion of rights, and a hemispheric Intellectual Property Council.[71] If these issues were addressed, the possibility exists of devising not just a TRIPS Plus but a NAFTA Plus agreement that could set the international standard for much of the next century.

Issues most in need of further resolution include the compensation mechanism for compulsory licensing and the definition of cultural exemptions. In the complex area of pharmaceutical and life-sciences patents, there are a number of specific issues to address. one such issues is that of guidelines for determining the trade in goods for which the patents have expired in one country but not another. Another issue, albeit for the more developed countries in the hemisphere, is that of patent term restoration that allows companies to enjoy the full term of their patent protection by adding the time spent securing regulatory approval to the life of the patent.[72] There are issues as to infringement exceptions for regulatory approval and for allowing generic competitors to stockpile products for release the moment the patent expires.[73]

A particularly controversial and important issue is that of data package protection. This refers to the capability of companies to keep the data they submitted in order to receive regulatory approval exclusive for a longer period of time (Coggio and Cerrito 1998: S4, col. 1). Access to data such as the results of human trials gives generic manufacturers a head start on preparing a product for market. Another contentious area is that of "linkage regulations," which allows patent holders to seek court orders to prevent the sale of a drug which appears to violate their patents.[74]

On the assumption that the highest standards of IPR protection could prove the most economically efficient, the FTAA negotiations should seek to achieve a level of IPR consistent with the protections offered in the United States, Canada, Europe, and Japan.

Question III What specific enforcement mechanisms should the FTAA adopt to ensure effective protection?

The question of the type of enforcement mechanism that should be negotiated into the FTAA has a slight air of unreality given the diversity of legal institutions among the participating countries. A country's ability to enforce IPR standards cannot be separated from its ability to enforce any law. The options are basically three-fold: adopt one of the existing multilateral models such as those in MERCOSUR, NAFTA, or the WTO; start from scratch and build a new enforcement mechanism; or modify elements of existing models to best fit the circumstances (Lopez 1997a: 624). Whatever the choice, countries will also have to give consideration to the interaction between the three identified existing mechanisms and other more specialized mechanisms such as investment protection treaties, including the stalled Multilateral Agreement on Investment (MAI) and the "non-violation complaint alleging nullification or impairment of benefits" (Burt 1997: 1015; § III, § IV.A.2; discussing MAI).

The first place to start is to suggest what should be the guiding principles. A discussion of guiding principles should address the following issues: legality versus informality, exclusively State-to-State actions versus a mixture of state and private rights of action, domestic versus bilateral or multilateral panels, confidentiality versus openness, compensation versus removal of trade benefits, and permanent versus ad hoc enforcement institutions.

(A) Guiding principles for intellectual property protection

(1) Legality versus informality

The NAFTA dispute resolution and enforcement mechanisms are highly legalistic, depending upon rules that emerge through carefully detailed procedures rather than the "merits of the case" (Lopez 1997b:163, 165, 207). Over time, one expects the procedures laid out in Chapter 20 to become more precise (Lopez 1997b: 208). This trend has a value in promoting transparency and certainty.

Given the diversity of legal institutions and legal cultures within the hemisphere, there is much merit in devising enforcement mechanisms that allow numerous opportunities for informal, negotiated solutions before disputes reach the stage of a binding panel ruling (Lopez 1997b). This entails recognition of the enforcement mechanisms em-

ployed in MERCOSUR, which rely upon informal political negotiations often at a very high level.[75] The downsides are the politicizing of trade disputes in which the scarce time of executives can be wasted on relatively minor issues. Still, it is preferable to have negotiated rather than imposed enforcement. As countries become more accustomed to using international mechanisms, more legalistic forms could evolve.

The question becomes: "Can the model of the NAFTA dispute resolution and enforcement mechanisms be sufficiently modified to allow for opportunities for informality without sacrificing core transparency and certainty?" Company law provides some suggestions. For instance, there could be a defined period during which participants in a dispute could "opt out" of the dispute-resolution process to pursue informal settlement. If an accommodation could not be reached, the more formal rules would be triggered as a default.

The goal is to avoid unnecessary confrontations at times when countries are in a state too chaotic to comply. The example that springs to mind is the WTO rulings against India for its failure to pass complying legislation during a time of political crisis in 1995.[76]

(2) Mixture of state and private actions versus solely state actions

A mixture of state and private rights of action, as exists in NAFTA, provides a greater scope and flexibility for dispute resolution.[77] State-to-state mechanisms tend to be complex and lengthy. They impose costs that may come close to exceeding the value of issue under dispute. Private/state dispute-resolution procedures have the advantage of more closely mirroring the more familiar domestic court processes that allow for negotiated settlements at various points (Shell 1995: 889–90). They also have the benefit of removing a great deal of the politics found in relatively minor disputes.[78]

The most important point here is that alleged violations of IPR almost always involve private companies.[79] To the extent that governments are taking up the cause of these companies, their expenditures represent a subsidy. While clearly governments have a role in protecting the interests of domestic companies in foreign markets, the costs should fall more on companies themselves.

(3) Domestic versus bilateral and multilateral resolution

In an ideal world, disputes about intellectual property would be handled in the country where the alleged violations took place. One can too easily get trapped in the scholastic intricacies of these international dispute settlement mechanisms and forget that the vast majority of IPR disputes are settled within countries themselves, and rightly so.[80] It is the quality of domestic enforcement mechanisms that will best

determine the effectiveness of any international IPR standards. Still, the ideal supposes a lot, such as reasonably consistent domestic laws and properly functioning legal institutions.

On this count, the multilateral enforcement provided by TRIPS is problematic.[81] Despite detailed provisions outlining enforcement procedures, TRIPS includes a significant "escape clause." Paragraph 5 of Article 41 states that Part III, laying out the enforcement requirements,

> does not create any obligation to put in place a judicial system for the enforcement of intellectual property rights distinct from that for the enforcement of law in general, nor does it affect the capacity of Members to enforce their law in General. Nothing in this part creates any obligation in respect of the distribution of resources as between the enforcement of intellectual property rights and the enforcement of law in general. (TRIPS Agreement: 1197)

The clause admits that if a country's judicial system does not work very well, intellectual property disputes have no special claim to any better treatment than other disputes similarly caught in the morass of underperforming courts. It would be narrow-minded to suggest that IPR disputes should have better treatment. The better course would be to say that the inevitability of increasing numbers of IPR disputes provides one more reason for nations to upgrade their judicial systems.

Attention to IPR in discussing judicial reform has a number of advantages. Bluntly put, as IPR disputes often involve great amounts of money, they attract attention (Perez 1993: 10). Such attention may be necessary to jump start the hemispheric process of judicial reform. It is time to break out of the mold of hollow and formalistic initiatives that have yet to produce substantive changes. As Rick Messick of the World Bank notes, "[i]n the past five years or so the World Bank and the Inter-American Development Bank have either approved or initiated loans totaling over $300 million for judicial reform projects in some [25] countries."[82]

More importantly, a focus on IPR as property rights can bring to the foreground fundamental rights and "rule of law" issues.[83] The reform of IPR enforcement in domestic judicial systems would contribute to increasing the contractual efficiency identified earlier as a key to economic growth.

(4) Confidentiality versus openness

William Landes and Richard Posner have argued that the courts in supplying judgments create a "public good" (Landes and Posner 1979). The work of mediation and arbitration panels in defining and

interpreting the underlying text of trade agreements provides an analogous service. The value of that information, however, is only as good as its dissemination.[84]

Information about court and panel decisions does more than just guide behavior and transactions; it is also a means to hold judges and tribunal members accountable. Jeremy Bentham once wrote:

> In the darkness of secrecy, sinister interest and evil in every shape have full swing. Only in proportion as publicity has place can any of the checks applicable to judicial injustice operate. Where there is no publicity there is no justice. Publicity is the very soul of justice. It is the keenest spur to exertion and sheerest of all guards against improbity. It keeps the judge himself while trying under trial. The security of securities is publicity. (Gall 1995: 51)

The issue of openness has arisen between the United States and Canada involving disputes both in NAFTA and the WTO (Morrison and Alden 1998: 4; Castel and Gastle 1998. Two American companies have recently challenged Canadian policy under NAFTA's Chapter 11 on investments. The hearings were held in strict secrecy. The Canadian Trade Minister, Sergio Marchi, defended the secrecy as necessary to preserve commercial confidentiality.[85] He adopted a similar stance in response to a request from the United States Trade Representative, Charlene Barshefsky to open up to the media the hearings of WTO dispute settlement panel addressing the issue of Canadian dairy exports. As a Toronto Globe and Mail editorial correctly pointed out, "those are our tax dollars at stake and our laws that are on the stand. We have the right to learn the case against us."[86]

(5) Compensation versus removal of trade benefits

The penalties for violations of trade agreements boil down to two elements: (1) compensating the offended company or country or (2) removing the offender's trade benefits in the specific product area or in other areas as well, e.g., cross retaliation. Though both NAFTA and TRIPS have adopted cross-retaliation, this is probably not a healthy trend.[87] Negotiating compensation provides a more economically efficient solution.[88] First, it forces a country to deal squarely with the costs of its discriminatory behavior. Political leaders will have to defend publicly why they are using taxpayers' dollars to defend the commercial advantages of certain industries. Second, it does not weaken the hard-fought advances in free trade. Third, it provides greater scope for variations in domestic policy as long as costs are acknowledged and compensated. At any rate, negotiations on potential compensation should

come before the suspension of trade benefits. In the event that countries cannot agree on compensation, there still remains the alternative punishment of canceling trade preferences.

Particularly in the area of IPR, compensation provides an attractive option. The nature of some knowledge-intensive products, such as pharmaceutical drugs, allows for a fairly reliable estimate of lost profits. For instance, if a domestic drug manufacturer violates a multinational corporation's patent by selling copies of a drug, it is reasonably easy to uncover its sales records. In the case of a large number of enterprises copying records and films, though, it is not such a straightforward exercise.

The FTAA negotiators have the opportunity to bring compensation into the forefront of IPR dispute resolution. This could serve the purpose of resolving related disputes such as the scope of cultural exemptions.

(6) Permanent versus ad-hoc enforcement institutions

If the goal is to negotiate most disputes and, to an extent, negotiate enforcement, it is counter-productive to establish expensive permanent tribunals who will inevitably have an incentive to drum up cases and drag them out. NAFTA and the WTO cope well enough with ad-hoc panels.[89] Moreover, as David Lopez suggests in arguing for evolutionary enforcement norms and procedure in the FTAA, a permanent institution is much more prone not to keep up with changing attitudes and capacities.[90]

(B) A modified NAFTA enforcement mechanism should provide the FTAA starting point

Given the diversity of countries in the hemisphere, simply adopting the WTO or NAFTA enforcement procedures would create too legalistic a mechanism to be immediately practical. As a result, expediency gives reason to incorporate some informal negotiation avenues contained in MERCOSUR.[91] The basic framework provided by NAFTA—progressive stages ending in compulsory third-party arbitration both for disputes between states and for disputes between private parties and states, with a final ruling that can require a schedule of compliance—should be used as the starting point. As Boris Kozolchyk writes, "[i]n my opinion, NAFTA's model, and not that of supra-national federalism is more likely to become universally acceptable. In the grand scheme of international cooperative forces, NAFTA is the model most consistent with the nature of the modern nation state and with the limits of man's cooperative impulses" (Lopez 1997a: 600, quoting Kozolchyk 1996: 144).

The starting point should be NAFTA—but with modifications. The modifications should seek to incorporate more openness, more open-

ings for negotiation, and more opportunities for compensation-based remedies. The FTAA should also include a forward-looking statement as to the ultimate goal of resolving the majority of IPR disputes through domestic courts rather than through the ultra-national mechanisms provided for in trade agreements. Trade remedies under the auspices of multilateral agreements should be extraordinary remedies. International trade agreements can only provide a limited substitute for the domestic entrenchment of the "rule of law."

(C) Two complications with the NAFTA model

Though the NAFTA dispute-resolution and enforcement mechanisms could provide a starting point for the FTAA negotiations, they also possess some complex and problematic features, specifically the mechanism for resolving investment disputes (Carter 1998: 19–26) and the non-violation complaint (Hertz 1997: 262).

(1) Investment protections

The FTAA presents the opportunity to make more explicit the connection in NAFTA between IPR and investment obligations.[92] The importance of doing so lies in the fact that the flow of investment among the countries of the hemisphere may already exceed in dollar terms the volume of trade.

A landmark achievement of NAFTA was its Chapter 11 on investment protection (Hertz 1997: 262). Indeed, Allen Z. Hertz writes: "As for NAFTA, none of its multiple personalities is more important than its character as a powerful investment protection instrument" (Hertz 1997: 295). Still, it is little understood that Chapter 11 treats IPR as "intangible property" and, therefore, falling under the definition of "investment" (Hertz 1997: 295). By having IPR covered by Chapter 11, investors are afforded a new avenue of enforcement. According to Hertz, a former Canadian trade negotiator, in the case of a dispute between investor and state over a case of compulsory licensing, NAFTA provides that the merits of dispute would be heard by a Chapter 17 arbitration panel but that the compensation to be paid in the case of a violation might be determined separately by a Chapter 11 arbitration panel.[93]

As with any new wrinkle, NAFTA's linkage of IPR and investment has raised a number of difficult issues. These include: (1) What is the precise interaction between the trade and investment chapters? (2) What definitions should prevail in the case that Most Favored Nation (MFN) status and National Treatment differs between sections? (3) What is the precise scope of the investment chapter's meaning of "expropriation" and, more importantly, "measures tantamount to expropriation"? (4) How do the investment provisions in NAFTA affect

other investment and IPR treaties? (5) What effect do the investment provisions have on the possibility of compensation to be paid in trade areas where exemptions have been negotiated, such as Canada's cultural industries? (See Hertz 1997: 295–307.)

If the FTAA process can help to bring some of these very difficult issues closer to resolution, then it will have achieved a great deal. Protection for intellectual property as investments will likely emerge in the next century as the preferred means to enforce rights. And, so it should.

It can be asked what benefit, aside from building negotiating knowledge and skills, would developing nations gain from wading through issues generated by NAFTA and left largely unresolved. For one, success in the FTAA could push the WTO to take over the MAI, a possibility made ever possible by the failure of the Organisation for Economic Cooperation and Development (OECD) to advance talks beyond the short-sighted efforts of the French and Canadian governments to restrict American "cultural" industries.[94] Through the FTAA process, the developing nations of the Americas would prove that negotiating investment agreements does not, and should not, have to remain a rich nation's game. If the MAI is negotiated within the WTO, developing nations will gain a say, rather than face the option of agreeing or not agreeing to a text written by the 29 OECD nations who control 98 percent of international foreign direct investment (FDI).[95] Indeed, the FTAA text could well serve as the basis for the MAI text.

(2) Non-violation complaints

The FTAA negotiations may also address some of the ambiguities of an emerging enforcement mechanism, the non-violation complaint. Allen Z. Hertz has described why this may be necessary, stating "the non-violation complaint alleging nullification or impairment of benefits, first fully elaborated under the General Agreement on Tariffs and Trade (GATT 1947) ... [is] now incorporated in both NAFTA and the WTO Understanding on Rules and Procedures Governing the Settlement of Disputes" (Hertz 1997: 262). There may be no avoiding dealing with the issue.

The non-violation nullification or impairment complaint refers to a right of action in a situation in which no explicit inconsistency or breach of obligations has occurred but the plaintiff party asserts that an action by the defendant has upset the balance of concessions and benefits expected when the original trade agreement was signed. In short, one party complains that even though no rule was broken, they are not receiving the benefits that enticed them to sign the agreement in the first place. As no inconsistency or breach has occurred, the plaintiff cannot request that the defendant remove the offending measure. In-

stead, through a WTO panel, the plaintiff seeks compensation in order to restore the original trade-off of benefits and concessions (Hertz 1997: 285–86).

The non-violation process presents a powerful tool for both nations and private parties to enforce IPR against the constantly novel ways to circumvent them. It does stress compensation over removal of trade benefits. However, if not properly defined, the non-violation complaint could lead to abuses for which the blame would fall incorrectly on the standard of IPR protection rather than the vagaries of the enforcement mechanism.

NAFTA applies the non-violation complaint to Chapter 17 on intellectual property (Prudhomme 1997: 133). Though there are exceptions, a party could have access to NAFTA's mechanism for settling disputes between states in order to determine whether another party had initiated a novel measure that, while not inconsistent with NAFTA, nullified or impaired a benefit expected under Chapter 17. Potential actions that could trigger a non-violation complaint include new laws on cigarette packaging, domestic content in broadcasting, and reference-based pricing for pharmaceutical drugs (Hertz 1997: 292). Canada agreed to having non-violation complaints apply to IPR out of the belief that it had secured sufficient exemptions, in particular for "cultural industries," to reduce the risk that they would ever be invoked (Hertz 1997: 287). Time and self-interest, of course, prove remarkable inspirations for innovation.

That Canada agreed to have the non-violation complaint in NAFTA surprised observers because it had opposed the American effort to place it in TRIPS and a compromise was found only in the dying days of the TRIPS negotiations, which allowed that non-violation complaints could not be initiated before January 1, 2000. The TRIPS Council is now examining recommendations for using the non-violation complaint that will be sent to the WTO Ministerial Conference, who can either approve its use or order more study. If the WTO ministers cannot reach a consensus, then the non-violation complaint will apply to TRIPS disputes on January 1, 2000 (Hertz 1997: 287–88).

One challenge for the FTAA negotiators is to define what constitutes a "benefit" that a non-violation complaint alleges has been lost (Hertz 1997: 294). If the definition of "benefits" is too narrow, then the non-violation complaint procedure would not be effective. If it is too broad, then the danger exists that any government action could trigger an attempt to secure those benefits through legal means less risky than the vicissitudes of the market. Some definition of "benefit" must exist that allows IPR-holders to use non-violation complaints to protect their market opportunities but does not, at the same time, invite speculative

litigation. Finally, there must be some scope for government legislation and regulation that does not trigger trade actions. Without a workable and sensible definition of "benefits," whether by the FTAA, TRIPS, or the WTO, the exercise of the non-violation complaints could provoke an undeserved backlash against high standards of IPR. The accusation would be that such standards had led to an unintended loss of sovereignty. Whether the FTAA can competently deal with the non-violation complaint issue remains a question.

Conclusion

This chapter has sought to answer three questions. The answers to each can be summarized as follows.

- First, the FTAA should negotiate a level of IPR protection higher than that set by TRIPS. Both developed and developing nations will benefit from the resulting further entrenchment of property rights, the expansion of free trade, the shaping of a global optimal standard, and the settling of the intellectual property debate, at least in the short-term.
- Second, the IPR protections in NAFTA provide the starting point for the FTAA IPR negotiations. Negotiators should then go further to address the tough issues including patent-term restoration and data exclusivity. Even though some technologies, such as biotechnology and commercial databases, and some issues, such as compensation for compulsory licensing, may not yield a consensus, the effort to reach one will build knowledge and skills among negotiators and clarify the conflicting interests.
- Lastly, the enforcement mechanism for IPR contained in the FTAA should start with the basic model of NAFTA and should incorporate features from MERCOSUR through the use of "default rules" to provide for more openness, opportunities for negotiation, and the use of compensation rather than removal of trade benefits. The FTAA should proceed to define investment protections and non-violation complaints. More optimistically, the FTAA should provide an impetus to the reform of domestic judicial and administrative institutions to minimize the need to resort to ultra-national procedures.

To the first question, then, one may ask whether the FTAA is being used by American trade negotiators, acting largely for the benefit of the American pharmaceutical, software and entertainment industries, to

advance in a more manageable regional forum those IPR standards that they failed to secure in TRIPS and to negotiate an accelerated implementation of TRIPS and possibly a TRIPS Plus in key hemispheric markets? The answer is yes, but developing countries will gain considerable benefits in new trade and investment opportunities.

Though self-interest may drive the American position on IPR, there is no harm if the result increases economic efficiency through the clearer definition and stronger enforcement of property rights. The harms alleged to higher IPR standards are now being shown to be, for the most part, either theoretical or short-term transitional problems. An empirical record is accumulating that shows more clearly the benefits when developing countries adopt higher IPR standards. Ultimately, property rights draw a line between who allocates scarce resources, the state or the individual, in a competitive market. The heavier the line is drawn, the greater the restraint upon state opportunism and favoritism. The more clearly the line is recognized, the greater the ability of individuals to pursue the economic opportunities borne out of their own labour, talent, and invention.

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Notes

1 The Heads of State of 34 democracies in the western hemisphere at the Summit of the Americas agreed to construct a "Free Trade Area of the Americas" (FTAA) in an effort to eliminate tariff and non-tariff barriers in the region.
2 The resolution to construct the FTAA was a result of the Summit of the Americas' desire to eliminate barriers to trade and investment and advance economic integration and free trade. See Summit of the Americas: Declaration of Principles and Plan of Action, Dec. 11, 1994, 34 I.L.M. 808 (1995).
3 Third Trade Ministerial and Business Forum of the Americas, Belo Horizonte, Brazil, May 13-16, 1998.
4 Fourth Trade Ministerial and Americas Business Forum, San Jose, Costa Rica, March 16-19, 1998.
5 The Working Group on Intellectual Property Rights, one of the 12 FTAA Working Groups established by the Trade Ministers was created at the March 1996 ministerial in Cartagena, Columbia.
6 Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 33 I.L.M. 1197 (1994).

7 The Uruguay Round of Multilateral Trade Negotiations established the WTO. See Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations ("Uruguay Round"), Apr. 15, 1994, 33 I.L.M. 1125 (1994).
8 James Packard Love is a lawyer working at the Center for Study of Responsive Law (CSRL) in Washington, D.C. The CSRL was created by Ralph Nader in 1968 as an independent research and advocacy organization that advances the interests of consumers and citizens on a wide range of topics. Ralph Nader is a leading consumer advocate and the founder of several organizations, including the CSRL.
9 For articles laying out some of these concerns, see Maskus and Penubarti1995 and Deardoff 1990.
10 See generally Reichman (1993) discussing the benefits afforded countries with established IPR regimes.
11 See Cheng (1998) briefly discussing short-run economic disincentives to intellectual property law enforcement in China; Wilson (1997) explaining that enforcement of intellectual property laws "offer[s] long-term benefits of enhanced employment, economic development, and innovation" (1997: 23).
12 See generally Bale (1997) discussing debate over patent protection.
13 See generally Primo Braga (1990) discussing the effect on developing countries of strengthened IPR protection; also the interesting discussion by Arvind Subramanian (1990).
14 E.g., Chin and Grossman (1990) discussing effects of international trade; Grossman and Helpman (1991)examining international trade; Trebilcock and Howse (1995) discussing regulation of international trade.
15 See a supporting view of the need for growth through imitation in Thurow (1997).
16 Evenson (1990); also Rapp et al. (1990) discussing costs and benefits of intellectual property protection in developing countries); Sherwood (1990)examining the relationship between economic development and intellectual property.
17 For correlations between IPRs and economic growth, see Park and Ginarte (1997); Torstensson (1994); Sachs and Warner (1995). For correlations between IPRs and technology transfer and FDI, see Mansfield (1994, 1995).
18 Debate Rages in Parliament Over Drug-Patent Legislation, BNA Pat., Tr., & Copyr. L. Daily (January 6, 1993): 3; Ip 1994: 39, discussing positive effects of patent, including Canadian pharmaceutical companies increase in research and development of new products and emphasis on export.
19 Patented drug prices decreased by approximately 2 percent in 1995 (McKenna 1997: B4).
20 Bill McArthur, personal communication via e-mail of November 26, 1998.
21 Moore 1994 argues that federal regulation in Canada has held "drug price inflation below the general inflation rate." For the actual listing of interventions, see the PMPRB website at www.pmprb-cepmb.gc.ca for annual reports.
22 IMS Canada Reports New Treatments Push Canadian Pharmaceutical Sales Up 10% Over 1997, Canada Newswire (March 17, 1998); available in WESTLAW, 3/17/98 CANWIRE 20:10:00.

23 See Oddi 1996, discussing the concept of natural rights in patent law.
24 Convention has no more solemn voice than that of the Encyclopedia Brittanica, which states: "[a] patent is recognized as a species of property and has the attributes of personal property. It may be sold (assigned) to others or mortgaged or may pass to the heirs of a deceased inventor" (15th ed. [1994], vol. 9: 194, col. 3).
25 Gordon 1993: 1533, 1573, n. 202: "A plausible argument can be made that intellectual property rights will indeed increase efficiency. The focus of such arguments tends to be the contention that, in the absence of property rights, there will be underproduction due to 'free rider' problems."
26 Merryman 1969, discussing the civil law tradition effect upon judicial systems.
27 Mattei 1997 identifies Quebec as a "mixed system"; Friesen 1996 argues that Quebec combines civil and common-law traditions in its legal system.
28 See Patterson 1997: 89 n. 186, presenting the debate surrounding "consumer surplus" and "product surplus"; also Goldman and Bodrug 1997: 583, revealing another perspective in this debate.
29 For an analysis of the lost consumer surplus from "market chill" due to price controls, see Lippert forthcoming. For an attempt to measure the effect of access to improved drugs in terms of life span and lifetime income, see Lichtenberg 1998.
30 For a general discussion of public-choice theory, see Stephan 1995.
31 See: Finland: Computer Networking Hardware/Software Market, Indus. Sector Analysis (June 29, 1998), available in 1998 WL 11163465.
32 Tulloch states that "[t]he successors to the original beneficiaries will not normally make exceptional profits. Unfortunately, they will usually be injured by any cancellation of the original gift. It would seem, as David Friedman has put it, that 'government cannot even give anything away'" (1993: 476–78).
33 See, e.g., Prebisch 1959, examining commercial policies in underdeveloped countries.
34 Prebisch 1959; see also Bernal 1993: 699, discussing trade arrangements in the Western Hemisphere).
35 See, e.g., Edge 1994: 193–95, examining Mexico's response to software piracy through trade agreements.
36 Personal communication with Robert Sherwood, Attorney and Consultant, in Washington, DC, July 30, 1998.
37 See Reichman 1996: 374–78; generally, Anderson and Gallini (eds.) 1998, discussing intellectual property rights and competition policy.
38 See Grason 1994: 117, n.160. The doctrine of patent abuse reflects one view of the judiciary, which thinks that intellectual property rights could pose a danger to a free marketplace. The modern status of the doctrine of patent abuse is somewhat unclear (Arquit 1991: 740–42). The essence of the doctrine is that where a patent is used to restrain trade unreasonably, it cannot be enforced until a "purge" has been effected (Hoerner 1991: 689–92). The patent abuse doctrine derives from the observation that patents are "an exception to the general rule against monopolies," and thus cannot be unlimited (Precision Instrument Mfg. Co. v. Automotive Maintenance Mach. Co., 324 US 806, 846 [1945]).

39 See, e.g., Dawson Chem. Co. v. Rohm and Haas, 448 US 176 (1980), holding that company conduct did not arise to patent abuse.
40 See United States v. Microsoft Corp., 147 F.3d 935, 937 (D.C. Cir. 1998).
41 United States v. Microsoft Corp., 147 F.3d 935, 937 (D.C. Cir. 1998).
42 For a supporting discussion based on a study of the results of using the "essential facilities doctrine" to order compulsory licenses, see Gilbert and Shapiro 1996: 249–55.
43 For a discussion of Kitch's "prospect theory," see Reichman 1996: 371–72.
44 See Kremer (1997), who claims "such patent buy-outs could eliminate monopoly price distortions and incentives for wasteful reverse engineering, while raising private incentives for original research closer to their social value."
45 For the latest background on this development, see Ryan 1998.
46 The following section owes its insights to conversations with former Canadian trade officials Michael Hart, Carleton University and Sylvia Ostry, University of Toronto; former United States chief negotiator for NAFTA, Julius Katz, Washington, DC, and professors Michael Trebilcock, University of Toronto and J.A. Van Duser, University of Ottawa.
47 For a discussion of the regional and multilateral approaches, see Maskus 1997: 681–94.
48 Based in Geneva, Switzerland, the World Intellectual Property Organization (WIPO) is responsible for administering, among other things, the terms of the Paris and Berne Conventions as amended by periodic diplomatic conferences. The Paris and Berne Conventions allow countries to bring disputes to the International Court of Justice (ICJ). See Paris Convention for the Protection of Industrial Property, Mar. 20, 1883, revised Oct. 31, 1958, art. 2, 828 U.N.T.S. 109, 115, as last revised at Stockholm, July 14, 1967, 21 U.S.T. 1583, 828 U.N.T.S. 305 (Paris Convention); Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, completed at Paris on May 4, 1896, revised at Berlin on Nov. 13, 1908, completed at Berne on Mar. 20, 1914, revised at Rome on June 2, 1928, at Brussels on June 26, 1948, at Stockholm on July 14, 1967, and at Paris on July 24, 1971, 1161 U.N.T.S. 3 (Berne Convention).
49 Paris and Berne Conventions.
50 See Bale 1997, examining the trial and tribulations of patent protection and pharmaceutical innovation.
51 See 19 U.S.C. §§ 2411-2420 (1994). Section 301 of the 1974 Trade Act gives the President and his delegate, the United States Trade Representative, the ability to investigate government practices in other countries to see if they present an unfair burden to American firms. Special 301 of the 1988 Trade Act specifically covers IPRs protection and the market access for knowledge-intensive American goods. Special 301 authorizes the United States Trade Representative to remove trade benefits such as MFN trade rates if, after a set deadline, the offending government's practices are not modified or removed. The exercise of penalties under Special 301 remains consistent with the United States's WTO commitments as long as WTO dispute-settlement procedures have been tried first.

52 See Harper 1997, evaluating Article 27.2 of the TRIPS Agreement.
53 See Cheng 1998: 2013, n. 30. TRIPS was intended to provide a minimum of intellectual property rights.
54 See Harper 1997, which provides just one example of the subjects left open to argument and interpretation in TRIPS.
55 Hicks and Holbein 1997, discussing intellectual property norms in international trading agreements.
56 North American Free Trade Agreement, Dec. 17, 1992, Can.-Mex.-U.S., 32 I.L.M. 289 and 605 (1993) (entered into force Jan. 1, 1994). See Bussey 1998b: 1F.
57 Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods, 33 I.L.M. 81, 107 (1994).
58 Agreement on Trade-Related Aspects: 107–08.
59 Canada had earlier taken remedial steps in the area of IPR. In preparation for NAFTA and TRIPS (though NAFTA was implemented before TRIPS, the IP section was negotiated after the general thrust of TRIPS was evident), Canada revised its patent law with Bill C-91 in 1993. It extended a full 20 years of protection to all patents, including those held by brand-name pharmaceutical companies, thus ending its 15 year experiment with compulsory licensing.
60 By July 1994, Mexico's patent law was substantially upgraded and the Mexican Industrial Property Institute (MIPI) was created to monitor and enforce the law including, upon request of private parties, the search and seizure of counterfeit goods. See Troy 1998: 146–51.
61 See generally, WTO's Ruggiero Says New Trade Round Possible at Turn of Century, AFX News (May 26, 1998), revealing support for a new trade round.
62 See Scoffield 1998, examining the circumstances that hinder trade agenda.
63 For a brief introduction to this new consensus, see Roberts and Araujo 1997.
64 Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations (Dunkel Draft), GATT Doc. No. MTN.TNC/W/FA (Dec. 20, 1991).
65 Compare Dunkel Draft with TRIPS Agreement. The most substantial difference in scope between TRIPS and the Dunkel draft deals with performers, phonogram producers, and broadcasters for whom national treatment only applies to rights specified in TRIPS itself.
66 Hertz 1997: 261: "NAFTA . . . establishes a sweeping national treatment requirement . . . which [is] subject to a few specific exceptions." For example, with respect to secondary use of sound recordings such as broadcasting or other public communication, NAFTA, art. 1703(1) states that a Party may limit the rights of another Party's performers to those rights its nationals are accorded in the territory of such other Party (NAFTA: 671, art. 1703.
67 NAFTA: 702, art.2106. The article refers to annex 2106, which states "Notwithstanding any other provision of this Agreement, as between the United States and Canada, any measure adopted or maintained with respect to cultural industries, except as, specifically provided in Article 302 (Market Access—Tariff Elimination), and any measure of equivalent commercial effect

taken in response, shall be governed exclusively in accordance with the terms of the Canada-United States Free Trade Agreement. The rights and obligations between Canada and any other Party with respect to such measures shall be identical to those applying between Canada and the United States.

68 See generally Larrea 1997, arguing against the cultural industries exemption); Hedley 1995, discussing the effect of Canadian cultural policy on United States copyright industries.

69 Morton 1998: 1, discussing the aftermath of the WTO ruling.

70 Sherwood and Braga (1996: 3–4) provide a detailed list of NAFTA provisions that exceed the protections in TRIPS: "[M]ore precise and comprehensive treaty adherence requirements including UPOV adherence for new plant varieties, a more positive statement of national treatment, highly constrained transition periods, protection of encrypted satellite signals, narrower controls on abusive conditions, enhanced protection for software, databases, and sound recordings, enhanced contractual rights in copyright, tighter language regarding rental rights, extended minimum trademark terms, broader definition of the relevant public in determining whether trademarks are well known, tighter compulsory licensing constraints, disallowance of dependent patents, 'pipeline' protection, and reversal of the burden of proof for process patents. The treatment of patent exhaustion, sometimes called parallel imports, is not entirely clear cut but appears to be constrained."

71 See Lopez1997, examining dispute resolution methods in the free trade area.

72 Waxman/Hatch Act has not "lived up to its promise," PhRMA's Bantham Maintains. The Pink Sheet (March. 3, 1997), available in 1997 WL 16952088.

73 One Year Later, Canadian Patent Laws to Stay about the Same. Biotechnology Newswatch (February 16, 1998), available in 1998 WL 8765022.

74 Canada's Linkage System "Is Unfair." Marketletter (July 6, 1998), available in 1998 WL 11623102 (discussing Canada's linkage system).

75 Taylor 1996-1997: 850, 853, addressing dispute resolution in Section II.

76 See Report of the Appellate Body, India – Patent Protection for Pharmaceutical and Agricultural Chemical Products, WT/DS50/AB/R (Sept. 5, 1997).

77 NAFTA: 682, ch. 19; also Shell1995: 829, 834–39, 887.

78 Shell 1995: 837, noting the desirability of removal of government influence from the realm of international trade); see generally Gal-Or 1998, comparing NAFTA and European Union disciplines.

79 See, e.g., Perez1993. A recent estimate by the United States International Trade Commission indicates that American companies are incurring $40 billion to $60 billion per year due to violations of intellectual property rights.

80 See, e.g., China: Courts Handle More IPR Lawsuits (China Business Information Network, July 17, 1997).

81 Kuo & Mossinghoff 1998: 539. TRIPS did provide the significant advance of placing IPR disputes within the ambit of WTO dispute-settlement procedures. What must be noted here is the improvement of the new WTO procedures over the older GATT procedures. Specifically, the new WTO procedures curtail the ability of defendant WTO members to block the adoption of WTO panel reports and to drag out decisions indefinitely.

82 Messick 1997: 1. Messick continues: "New courts have been created, the number of judges increased, and computers and other modern technologies introduced. The codes controlling civil and criminal procedures have been streamlined, and the judicial sector has been reorganized to make it more independent. But, despite these changes, many systems still perform poorly."
83 Helter 1998: 357, offering a proposal that would deepen the rights nature of IPRs.
84 See Panel Discussion, Transnational Litigation: International Arbitration and Alternatives, Opportunities and Pitfalls, 10 AUT Int'l L. Practicum 74, 84 (1997).
85 NAFTA Secrecy. Toronto Star (Aug. 27, 1998): A27; Why the Secrecy over Investors' Rights? Financial Post (August 29, 1998): sec.1, p. 20.
86 Settle Trade Disputes in the Open. Financial Post (Sept. 11, 1998): sec.1, p.10; Can We Talk. Globe and Mail (Sept. 10, 1998): A24.
87 It must also be noted that with IPR disputes subject to WTO jurisdiction, WIPO dispute settlement mechanisms are left in a weakened position because they have far weaker powers to compel resolution and to impose penalties. This must be interpreted as making moot, in practice, the WIPO's promotion of the Draft Treaty on the Settlement of Disputes between States in the Field of Intellectual Property.
88 For a discussion of efficiency costs of negotiation over legal rules, see Cheffins 1997: 25.
89 See, e.g., Schmertz and Meier 1998, detailing the United States' victory; see also Schmertz and Meier 1997a, 1997b.
90 Lopez 1997b: 208, discussing dispute settlement in trade disputes of environmental and labor agreements.
91 See, e.g., Why All the MERCOSUR Excitement? Mkt. Latin Amer. 9, 4 (Sept. 1, 1996).
92 See, Greater IP Protection Sought within the FTAA, 5 J. Proprietary Rts. 24, 27 (1997).
93 Personal communication with Allen Z. Hertz, former Canadian Trade Negotiator, Ottawa, Ontario, August 10, 1998.
94 See generally, A Survey of MERCOSUR, The Economist (October 12, 1996), available in 1996 WL 11247186 (surveying MERCOSUR).
95 See, Does the WTO Need Special Rules for Foreign Direct Investment? The Economist (October 3, 1998): 10; see also, All Free Traders Now? The Economist (December 7, 1996): 25, available in 1996 WL 11247482.

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