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THE NORTH-SOUTH DEBATE OVER THE PROTECTION OF INTELLECTUAL PROPERTY

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The conflict over intellectual property in the international context takes place in a tense environment of change. It is shaped by economic, political, social and philosophical dimensions which exemplify the sharp contrast of opinions between developed, industrial countries and less developed countries. This article argues that the solution to this debate, as it is most commonly defined, is unfeasible. In redefining the solution, the author constructs a criteria for compromise: instead of focusing on the implementation of a universal standard of protection, an individually-tailored framework suited to a nation's stage of development is proposed.

I. INTRODUCTION

The concept of intellectual property protection, a traditionally domestic economic policy issue, has always included an international dimension. In recent years, this international dimension has become more pronounced. Consequently, its political, philosophical, and even social significance in the international arena has been the subject of much controversy, particularly between developed and less developed countries. The

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North–South debate is defined as follows: it is the North’s predominant contention that a uniform standard of intellectual property protection will be of benefit to all countries. Developed countries point to the incentive effects of intellectual property protection on innovative activity and the importance of such incentives to the development needs of the South. In contrast, the South, or less developed countries, reject these arguments, emphasizing their special circumstances and requirements which are essential to progress along the road to development. They are skeptical of the somewhat unfounded claims of the North and note that lower standards of protection are economically efficient from a developing country’s perspective.

The purpose of this paper is two-fold. First, it will attempt to identify the forces which are at play in the North–South debate by advancing the interests of each side. Second, it will question whether a resolution to the debate, within the parameters of this discussion, is at all feasible.

In Part I, the analysis begins with some essential background. Intellectual property is defined, and the parties to the debate are more clearly introduced. Next, the global developments which have made the international dimension of intellectual property more significant and have given rise to the debate itself are explained. The analysis continues as the various interests of the parties are presented in a format which clearly highlights the forces that both define and shape the debate. It is the author’s contention that the conflict over intellectual property protection in the international context has, to date, progressed in a tense environment for change. This environment is characterized by an economic, political, philosophical and social dimension. Each of these dimensions, and

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1 The terms North/South, developed/developing/less developed are used interchangeably. The term “North” refers to developed countries. The term “South” refers to less developed countries, which are also from time to time referred to as developing countries, although the latter terms is less accurate. Less developed countries, abbreviated “LDC” throughout this paper, include countries traditionally considered developing or underdeveloped, but also include countries which are today more precisely referred to as newly industrialized countries. At some points in the analysis, the issue being considered may in fact be more relevant to one subset of LDCs than the other. However, the term LDC is used for purposes of convenience throughout Part I. The distinction is nevertheless significant, as will become apparent in Part II of the paper.
the conflicting perspectives of the North and South within them, are examined respectively. Because the format of this examination is inherently general, a closer and more detailed consideration of each side’s perspective follows.

Part II of the paper engages in a more remedial analysis. In concluding that a solution to the debate, as defined, is not feasible, it seeks to propose another, more useful solution. The author proposes that a solution should focus not on the implementation of a universal standard of protection, but on the implementation of individually tailored levels of protection suited to a nation’s stage of development. Such a framework is assessed in terms of its compatibility with the existing institutional structures of the World Trade Organization (WTO). In this context, it is submitted that an effective and efficient solution to the debate is indeed feasible.

II. BACKGROUND

1. What is Intellectual Property?

Before embarking on an examination of the conflicting agendas of the North and South, it is critical to understand what is meant by the term intellectual property (IP) itself. There are two types of property: tangible and intangible. Laws relating to tangible property refer to rights that are attached to or flow from a physical object. Laws relating to intellectual property, in contrast, refer to rights attached to or flowing from intangible property, including ideas, inventions, and creative expressions of the mind, broadly defined. IP creates the property by defining what will be protected from others. Its delineation of rights reflects policy choices, defining what types of intellectual activities are valued and, therefore, are worthy of protection. It is important to note at this early stage of the analysis, that the bestowing of the status of ‘property’ upon such

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2 The abbreviation IP is used throughout this paper to refer to intellectual property for purposes of convenience and brevity.
5 Gregory, supra note 3.
intangibles was primarily a conception formulated and first accepted by the developed world. These mechanisms, or regimes of intellectual property, have been cultivated by developed countries largely to accommodate their interests; interests which, as will be examined within the scope of this paper, are often in conflict with those of less developed countries (LDCs).

There are a number of regimes of intellectual property. For the purposes of this paper, two are particularly relevant and will be defined here. Patents are designed to protect the right to make, use, or sell an original invention. Patent law is particularly relevant in the context of technology because technology inevitably plays a critical role in the development of new inventions. Copyrights protect the right to publish, copy, or sell original literary, musical, artistic, photographic, or other expressions of thought. In the international realm, and particularly with regard to the North–South debate, copyright law plays a significant role in the context of culture and education. However, the impact of technology on copyright law cannot be overlooked. More recently, the regime of copyright has been used to protect innovations of the computer age, particularly software. Clearly its role is expanding from culture and education to technology, and this presents a controversy that runs parallel to the debate over IP protection in the international arena. To date, this parallel controversy has been predominantly engaged within the borders of the developed countries. Its impact on the international controversy over IP protection, however, continues to grow steadily.

6 There is some controversy whether patent or copyright is a more effective regime to protect software. It is also important to recognize that the protection of software is but one area of controversy. The Internet, and the inevitable global access to information that it permits, is another concept that has the potential to expand the scope of copyright.

7 R.M. Gadbaw & T. J. Richards, Intellectual Property Rights: Global Consensus, Global Conflict (Boulder: Westview Press Inc., 1988). U.S. efforts in persuading Argentina to adapt its copyright laws to include software should not face the obstacles that exist, for example, in persuading it to include patent protection for pharmaceuticals. This is because, to date, while unauthorized copying is extensive, there is no significant organized group which opposes copyright protection for software in Argentina. At the same time, representatives of software creators (both Argentine and others) have not yet established a specific unified position in support of copyright protection for their works. Undoubtedly, as international piracy in software increases, the conflicting interests will become more pronounced and the
2. Who are the Parties to the Conflict?

The debate over IP protection, for the purposes of this paper, is one that takes place between developed countries and less developed countries (LDCs). Such a statement, however, may suggest a uniformity among parties comprising one side or another that does not exist. While a number of developed countries may benefit from and do support increased levels of IP protection, it would not be fair, or for that matter accurate, to suggest that all developed countries, as a group, are equally supportive and equally determined to establish a uniform standard of protection. The extent of a country's comparative advantage in innovation, as opposed to imitation or adaptation of the innovations of others, is what shapes its strategy toward IP. 8

For example, Canada is often considered to be a net importer of innovation. While innovations are not imitated or copied in an unauthorized manner, Canadians are known for their aptitude for adapting and modifying existing technology in a manner which complies with accepted levels of IP protection. 9 Consequently, while Canada would benefit to some extent from the application of uniform standards worldwide, it is has less to lose from inadequate protections than many LDCs. 10

In fact, lower universal standards of protection could arguably benefit Canada in that the advantage of cheaper access to foreign information may actually outweigh any losses of foregone revenues due to piracy and inadequate protection of Canadian innovations. The United States, in contrast, is the world's leader in innovation. It

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9 Economic Council of Canada, Report on Intellectual and Industrial Property (Ottawa: Queen's Printer, 1971). Canada is seen as a net importer of innovation in relation to intellectual property protected by both patent and copyright regimes. The Economic Council of Canada notes that ninety-five percent of patents granted within Canada go to foreigners, predominantly from the U.S. In addition, the Council suggests that Canada's balance of international payments for information protected by copyright is likely to always be heavily outbound. The maintenance of good access to foreign information is critical for Canada. The Council recommends that these considerations should be kept clearly in mind for purposes of international negotiation.
10 Ibid.
is not unreasonable, therefore, that the U.S. has been the most aggressive developed country in the movement toward the adoption of a universal standard of IP protection. To a large extent, the efforts of the U.S. have been readily supported by Japan and members of the European Union.11

Consequently, it is important to keep in mind that when the term “developed country” is used, it most often represents the activities or beliefs of those countries which have more at stake because of the existence of a comparative advantage in innovation. More often than not, the term is used almost exclusively to refer to the U.S.

The term “less developed country” refers to a group of countries which have not yet reached the level of economic welfare and industrial capacity of the developed countries. However, the term is wide-sweeping. It includes countries traditionally considered “developing” or “underdeveloped,” such as those of Sub-Saharan Africa and many of the countries of Latin America. It also includes countries which, while once considered to be in the process of developing, are now more accurately termed “newly industrialized countries.”12 These countries, which include Taiwan, Korea, Malaysia, and a host of others are important contributors to the debate. Indeed it is their stories of success and failure which, as will be seen in the course of this analysis, set the stage for a prospective solution to the debate.

III. THE DEVELOPMENTS THAT SET THE BACKDROP FOR CHANGE

The movement toward a more viable standard of IP protection in the international arena was initiated and, in fact, provided with additional momentum by various global developments. These developments have revolutionized the world trading system and have set the stage for the environment in which the IP debate is held.

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11 Gadbaw & Richards, supra note 7.
1. Growth in the Significance of Economic Interdependence

This century has witnessed a dramatic increase in the relative importance of international trade to the economic stability of a country. The increasing importance is due in part to changes in technology which facilitate not only greater quantities of trade, but also greater efficiency in the functioning of the global trading system. Faster and more efficient transportation and communication mechanisms have allowed local economies to extend themselves into the international realm of commerce in the fashion of what has been termed "economic globalization." This trend is accompanied by increased reliance among nations on trading policies of other countries and, in turn, a consequent reduction of orthodox trade barriers between countries. The debate over protection of intellectual property rights in this international arena is but one example of the extent of this interdependence. The absence of many trade barriers has made intellectual property more visible in relative terms. Some intellectual property products (computer software, for example) which formerly might have been precluded from entering a market by tariffs or quotas may still face a barrier to market access in the form of weak intellectual property rights protection. Developed countries contend that the lack of protection existing in many LDCs destabilizes the international trading system. It allows LDCs to gain significant trade advantages because it allows them to appropriate intellectual property and make a profit from the sale of counterfeit products both domestically and in the international market. Their profit is at the expense of developed countries who rely on sales of the originals in these same markets to maintain their trade balances. The result is an unintended transfer of wealth from the economies of the industrialized countries to those of the developing countries.

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13 See e.g. Trebilcock & Howse, supra note 8.
14 See e.g. Eberschlag, supra note 4 at 13.
15 ibid.
2. Growth in the Significance of Technology and Innovation to Industry

The technology and innovation component of exports, both tangible and intangible, has grown significantly during the course of this century. The export of products in the U.S. considered to have a high degree of IP content rose from ten percent of all exports in 1960 to twenty-five percent in 1988. Innovation has, in fact, become the hallmark of the economies of the OECD countries. Robert Eberschlag notes:

Comparative advantage, export success, and international competitiveness are no longer understood as simply resulting from plentiful resource endowments or low labour costs, but instead are created through the development and clever employment of technology.18

Developed countries typically devote one percent to three percent of their annual GNP to the research and development needed to produce new technologies.19 “Estimates suggest that forty percent of the growth in per capita GNP in the U.S. from 1929 to 1957 is due to technological change.”20 It is no wonder that developed countries place importance on the need for increased IP protection worldwide.

The growth in the significance of technology has influenced LDCs in a different manner. While imports have higher technological content, many LDCs have not witnessed a comparable increase in the significance of technology to their own domestic industries as a result of domestic research and development. According to a study conducted by Dru Brenner-Beck, inventions by LDCs accounted for only 1.8 per cent of the world patent stock

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17 Eberschlag, supra note 4 at 11.
18 Ibid. at 11.
in 1988. However, the significance of technology has not gone unnoticed. By recognizing improved production processes and new products which technology and innovation give rise to, it is clear that LDCs have appropriated developed world technology and innovation to improve their own trade status. This is essentially what gives rise to what has been defined as another development that has led the IP movement: growth in the significance of piratical industries.

3. Growth in the Significance of Piratical Industries

In some LDCs, entire industries have developed that owe their very existence to the ability to pirate. Recognizing that a strong demand for goods with high technological or innovative content exists both within their own domestic markets and outside their borders, many LDCs have engaged in the unauthorized and uncompensated reproduction of products with IP content. Such appropriation has been facilitated by technologies which themselves aid in the reproduction process. Intellectual property can be transferred more efficiently today by means of modem, Internet, cable, satellite, and fax. Copyrighted material can be replicated by way of high-speed photocopiers and scanners. The result has been the emergence of an international market for counterfeit and pirated goods operating parallel to and in competition with the legitimate market for these goods.

The impact of piracy on countries in which the original products were developed can be substantial. Injury may occur in one of three ways. The first is through import underpricing in the counterfeiting country's market. An LDC which produces unauthorized reproductions of foreign products may price them lower than the originals and thus make it more difficult for the original product to compete in the LDC's domestic market. The second form of injury is by way of re-exportation of unauthorized products to other foreign markets. The LDC may introduce the

21 Brenner-Beck, supra note 12 at 97, 98. Calculations are based on WIPO, Industrial Property Statistics (1988), excluding Eastern European countries, the USSR, and South Africa.
22 Eberschlag, supra note 4 at 12.
copies into the stream of international trade and thereby compete on more favorable terms with exporters in the international arena who sell the genuine articles at higher prices. Finally, injury may occur by way of re-exportation of unauthorized products to the originator’s home market. In this context, an LDC essentially re-introduces the product, in its copied form, into the originating country’s market at a price that substantially undercuts the originator on its own territory.

In 1988, the U.S. International Trade Commission (USITC) conducted an extensive study and prepared a report on the impact of piracy on U.S. business. Its conclusions are startling. Total U.S. business losses due to piracy in 1986 were estimated at $23.8 billion, or fifteen percent of the U.S. trade deficit. Employment losses attributable to foreign piracy have been estimated to be approximately 131,000 jobs. The study identified twelve countries in which losses from piracy amounted to $1.3 billion per year in lost sales revenue alone. From an international perspective, another study has estimated that global losses from piracy may account for as much as five percent of world trade. One should be cautious of such figures, however, as they are often based on the estimates of sales that would have occurred if consumers had purchased the more expensive legitimate goods; goods they might not have so purchased because they are more expensive.

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25 Ibid. at 88.  
28 The countries identified were Brazil, China, India, Indonesia, Malaysia, Mexico, Nigeria, Philippines, Korea, Singapore, Taiwan, and Thailand.  
30 See USITC Study, supra note 24. The methodology employed by the USITC study consisted of sending questionnaires to companies in affected industries asking them to estimate their losses due to piracy. Self-interest may have resulted in overestimation (at 89).
THE NORTH–SOUTH DEBATE

IV. A TENSE ENVIRONMENT FOR CHANGE

1. The Forces Which Define and Shape the Debate

i. The Economic Dimension

Before addressing the economic dimension of the IP protection debate in the international context, it is useful to consider the economic arguments as they exist in the domestic context. The basic economic argument for the protection of IP is that unless invention or creation is compensated at its full social value there will be a lack of incentive to undertake it. A useful example is provided by the pharmaceutical industry where pharmaceutical companies may spend millions of dollars in research and development to create a single drug. It is through the sale of this drug that they are able to recoup their development costs. Without patent protection, the production processes of the company would be at the disposal of any other company wishing to manufacture the new drug. Consequently, the appropriating firm would be able to sell the drug at a lower price since it does not face the burden of recouping development costs. It is therefore able to effectively undercut the firm which originates the drug. The result is a “free-rider” problem, where an individual or firm is less likely to make an investment in research and development, or any innovative activity for that matter, if the results of such activities can be appropriated at little or no cost.

Intellectual property protection is accorded economic justification in that it stimulates innovative activity. But the benefits of providing an incentive to innovation must be balanced against the potential cost associated with the creation of a monopoly on knowledge. If a single firm is provided with the opportunity to reap profits from a product it has developed, competitors who may be able to imitate or adapt the invention such that its social value is increased are effectively excluded. Without competitors, the cost of the product may also be much higher. The debate is intensified when the product in question provides a social benefit, as for example a pharmaceutical product. In such a case, an

31 See e.g. Gregory, supra note 3 at 1.
32 Ibid.
33 Ibid.
argument may be added that the benefit of the product to society at large resulting from a less restrictive IP regime outweighs the benefit of providing an incentive to innovate (the flip side of this, of course, is that without protective measures the innovation would not have occurred in the first place). In the domestic economic environment, the costs and benefits must be weighed and a scheme of intellectual property protection developed for the country which best facilitates a compromise between these competing interests.

The standard economic analysis for intellectual property protection, as outlined above, assumes a closed economy. When the same analysis is applied in the international arena, a substantially altered compromise may be required. The same economic interests are at stake; incentives to innovate must be balanced against the potential to free ride. The players, however, must be considered from a broader perspective. In this context, it is the LDCs which are the free riders and the developed countries which are the potential monopoly holders.

It has been argued, however, that in the international version of this analysis another interest comes into play: that of comparative advantage.\(^\text{34}\) As net importers of innovation, LDCs have a comparative advantage in imitating the innovations of other countries. Innovation is not a major source of economic activity in these countries and it is wise, from an economic perspective, for an LDC to choose a less stringent intellectual property regime than a country whose economy is highly dependent on innovation. Many developed countries, in contrast, have traditionally had a comparative advantage in innovation. Under such circumstances, a high level of protection for intellectual property rights would seem well justified.\(^\text{35}\)

The parameters of this analysis lie in the costs and benefits as they accrue in the global environment, and the interests of all countries must be considered. Developed countries which are net exporters of innovation often argue that the benefits of increased IP protection accrue not only to developed countries, but to LDCs as well. Developed countries base their argument on the increased potential for foreign technology transfers and the incentive to local innovation that results from IP protection. These arguments are

\(^{34}\) Trebilcock & Howse, supra note 8.

\(^{35}\) Ibid.
rejected by the LDCs who foresee bleak consequences from increased protection. Both perspectives are considered in sufficiently more detail in a later section of this paper. However, even before the details of these conflicting perspectives are examined, it becomes apparent that the debate over the international protection of IP is not likely to be resolved by a pareto efficient\textsuperscript{36} compromise. Essentially, it would be overly optimistic to assume that a possible solution could implement a universal standard of protection in which every country involved will benefit. Instead, the debate will be resolved, if at all, by way of a compromise that is Kaldor-Hicks efficient,\textsuperscript{37} where the gains in economic welfare attributed to the benefits of a universally accepted standard will be seen as outweighing losses in welfare that result from its costs.\textsuperscript{38}

ii. The Political Dimension

a. The Attempt of Developed Nations to Retain Significant Comparative Advantage in Intellectual Production

Studies suggest that the prospects for the industrialized countries to retain a major share of the global market in the 21st century depends not only on their ability to stimulate technological innovation, but also on efforts to

\textsuperscript{36} D.W. Pearce, ed., The MIT Dictionary of Modern Economics (Cambridge: MIT Press, 1992) at 324. "Pareto optimum" is defined as an allocation of resources such that no reallocation can make anyone better off without making at least one other person worse off.

\textsuperscript{37} Ibid. at 328. "Kaldor-Hicks" efficiency results in a situation where state A is preferred to state B if those who gain from the move to A can compensate those who lose and still be better off.

\textsuperscript{38} Trebilcock & Howse, supra note 8. Trebilcock and Howse suggest that the level of protection chosen must be justified as a fair bargain or trade-off between the competing or conflicting economic interests of different states (at 273). See also A. Deardorff, "Should Patent Protection Be Extended to All Developing Countries?" (1990) 13 World Economy 497 at 505-506. Deardorff argues that global aggregate welfare may well be maximized if certain countries are exempted completely from requirements for intellectual property protection because, in some poorer countries, the marginal increased rents to the patent holder are unlikely to be substantial enough to create the incentive for further innovation. When combined with the effect of a shift in productive resources to an area in which a country does not have a comparative advantage, the net result is a reduction in global allocative efficiency.
ensure an orderly diffusion of that technology through appropriate international legal machinery.\textsuperscript{39}

The preceding statement of J. H. Reichman\textsuperscript{40} brings to light another dimension of the debate over international IP protection. It would be naive to assume that any "compromise" between competing interests of the North and South would be reached solely on the grounds of its economic merit from an international point of view. An assumption of this nature fails to recognize the influence that the economic strength of the North itself may be able to wield upon the South. Political pressure to succumb to the standards sought by countries which desire to increase IP protection is clearly a motivating factor in the debate. It may indeed be argued that the economic rhetoric used to affirm the position of the developed countries is merely a guise for a strategy that is more political in its intent. Professor Suman Naresh argues:

Attempting to persuade developing countries that the industrialized countries are promoting enhanced intellectual property protection to accelerate the former's economic growth is neither necessary nor appropriate at this point. The IP debate stands on firmer ground if premised on the recognition that the industrialized countries are attempting to protect an increasingly important component of their national wealth.\textsuperscript{41}

As LDCs profit from improved manufacturing skills, the ability of the developed countries to maintain healthy trade balances will increasingly depend upon the export of goods with high intellectual content, an area in which they retain a significant comparative advantage. There are some, in fact, that take the extreme view that the movement initiated by developed countries to establish a high universal standard of IP protection is "an attempt to control the diffusion of new technologies . . . [and] to freeze the international

\textsuperscript{39} Reichman, supra note 23 at 754.

\textsuperscript{40} Ibid.

division of labour by way of controlling technology transfers to the Third World. While this may be an exaggerated claim, it is nonetheless true that the future economic strength of developed countries may be at stake if IP protection is not universally accepted.

b. The Forum of Negotiation: Linking IP to Trade

The political dimension of the IP debate is further exemplified in the context of the controversy which exists between the North and South regarding the forum in which the debate should be addressed. The search for a uniform standard of protection led the U.S. to look to GATT as a forum in which to address the issue of IP protection in the international context. LDCs, in contrast, saw the World Intellectual Property Organization (WIPO), which has the status of a specialized agency of the UN, as the appropriate forum. For the U.S., as well as various other developed countries including Japan and members of the European Union, GATT would allow the IP issue to be strategically linked to trade. This would provide the U.S. with a bargaining chip in that it would have a favourable advantage in negotiating a higher, more universal standard of IP protection.

The LDCs recognized that the existing international agreements administered by WIPO, including the Paris Convention, the Berne Convention and the UCC, did not link IP protection with trade, and as such, removed the potential for any bargaining advantage that the U.S. and other developed countries might have. Until the

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43 H.P. Kunz-Hallstein, “The U.S. Proposal for a GATT Agreement on Intellectual Property and the Paris Convention for the Protection of Industrial Property” (1989) 22 Vand.J. Transnat’l L 265. Note: the GATT is both an international set of rules governing trade and an institution that administers those rules and oversees multilateral trade negotiations. WIPO was organized in 1963 to oversee several of the major international agreements on intellectual property rights protection (including the Berne and Paris Conventions). One of WIPO’s missions is to promote the protection of intellectual property rights through technical assistance and educational support.

44 Reichman, supra note 23.

45 Ibid.
Uruguay Round negotiations of GATT, international trade and intellectual property had been relegated to distinct and separate spheres. Reference to IP in the text of GATT was limited to a provision permitting the adoption by individual GATT member states of domestic legislation necessary to protect it.\(^46\) In the mid-1970s, private sector interest in the protection of IP at an international level was initiated largely in recognition of the global developments outlined earlier. Subsequent to the Uruguay Round, it became apparent that the developed world, with the U.S. at the forefront, was intent on an ambitious course to establish a set of standards for the protection of IP that could be applied worldwide. It also became apparent that the enforcement of this standard could best be established by linking IP protection to trade by way of the GATT. Consequently, the U.S. spearheaded the movement to have intellectual property rights included as an integral part of the Uruguay Round negotiations. Indeed the final act of the Uruguay Round included an agreement on trade related aspects of intellectual property (TRIPS). Clearly the position of the LDCs changed, from strong opposition to acquiescence in the inclusion of IP related issues in the negotiating agenda and, indeed, in the Final Act. While perhaps not the sole instigator, it would be hard to deny that the change in opinion, which effectively allowed IP to be linked to trade, was attributed to unilateral pressure resulting from the retaliatory trade legislation of the developed countries, especially the U.S.\(^47\)

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\(^46\) Trebilcock & Howse, \textit{supra} note 8 at 254.

\(^47\) Eberschlag, \textit{supra} note 4 at 30-37. Eberschlag proposes two theories for the resulting change of position of the developing countries on the inclusion of TRIPS in the GATT. The first theory postulates that developing countries underwent a genuine change of opinion on the benefits of a strong intellectual property rights system; a general shift by developing countries towards the market and away from state control over the economy. The second theory attributes the change to bilateral pressure resulting from U.S. trade legislation. Eberschlag concludes that the developing countries did change their minds to some extent on the merits of intellectual property protection, but clearly, their change of position was also largely forced, or at least catalyzed, by bilateral pressure from the U.S. The position taken by Eberschlag's thesis is that both explanations contribute significantly to an understanding of the problem, but neither can completely account for the change in behaviour of the developing countries.
c. The Impact of Unilateral Trade Legislation

Countries relying on the international trade system do not make decisions based purely on economic rationale thereby discounting political barriers to their activities. For LDCs, the reality of failing to invoke some degree of intellectual property protection may be retaliation by way of the closure of various markets abroad — markets upon which great reliance is placed.

The most infamous accounts of aggressive unilateral pressure of this nature have been perpetrated by the U.S. trade remedy law in the U.S. has long provided for unilateral retaliatory action against foreign products that are seen as violating domestic IP laws. Section 337 of the U.S. Tariff Act allows for a complete exclusion of products from the U.S. which are found to have been produced in such a way as to violate U.S. domestic IP laws. Section 337 is often seen as a means of extra-territorial enforcement of domestic IP law. An even more aggressive stance is taken by the Special 301 provision of the U.S. Omnibus Trade and Competitiveness Act of 1988, which allows for trade sanctions to be imposed against countries considered to be engaging in “unfair” trade practices, which includes inadequate IP protection. Section 301 does not establish a set of norms by which standards of adequate IP protection are established. Consequently, it provides for very broad discretion. The countries named to date under Special 301 have included Japan, Brazil, and India.

In 1989, for example, the U.S. imposed tariffs of 100 per cent on a wide range of Brazilian products totaling $39 million in retaliation to Brazil’s failure to extend patent protection to pharmaceuticals. Another provision of U.S. law, contained in the

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49 Trebilcock & Howse, supra note 8 at 259.
50 Omnibus Trade Act of 1988, Pub. L. No. 100-418, 102 Stat. 1107 (to be codified at 42 u.s.c § 5403). Section 1101(b)(10) sets forth U.S. negotiating objectives regarding intellectual property, while section 1303 outlines procedures for identification of countries that deny adequate protection of, or market access for, intellectual property rights.
Process Patents Amendment Act,53 gives holders of IP rights a right of civil action against importers of products into the U.S. that violate these rights. Since it is often difficult to ascertain whether a product infringes IP rights, the result of this provision is to create a "chilling effect" whereby buyers simply avoid the products of countries with poor reputations in maintaining IP protection.54 The U.S. is not alone in implementing unilateral political pressure, by way of legal sanction, to maintain high levels of IP protection. In 1984, the European Union enacted the "new trade policy instrument," which allows the EU to engage in trade retaliation against illicit commercial practices that affect EU economic interests.55 The European Commission Green Paper on Copyright notes:

[I]n the field of intellectual property, and copyright in particular, the instrument could conceivably play a significant role in the future, particularly as regards countries which practice a policy of more or less active connivance in the pirating of goods and services developed elsewhere.56

The U.S. has also considered the impact of joining forces with Japan and the EU in coordinating a trade-oriented political pressure strategy. Authors Gadbaw and Richards write:

By adopting a common policy with the EC and Japan linking access for imports from developing countries to improvements in the levels of intellectual property protection provided by these countries, the developed countries would put at stake a market two to four times the size of the U.S. market for these developing countries' imports.57

The recent TRIPS agreement of the Uruguay Round Negotiations of GATT has caused some commentators to express uncertainty regarding the perceived ability of developed countries to utilize trade sanctions in an effort to secure higher standards of IP protection. Article 8 of the Agreement states that:

54 Reichman, supra note 23.
55 Trebilcock & Howse, supra note 8 at 261.
56 European Commission Green Paper on Copyright, as cited in Eberschlag, supra note 4 at 25.
57 Ibid. at 25.
Some have argued that the provision may be used as a shield by LDCs against unilateral trade sanctions imposed by developed countries where the LDCs' IP standards are in conformity with the minimal requirements of the TRIPS agreement. Specifically, LDCs could be protected from such sanctions where their standards are in conformity with TRIPS, though still considered "unfair" by U.S. standards. In the presence of such unilateral action, an LDC could make a complaint in the GATT/ TRIPS dispute settlement forum that the U.S. was in violation of Article 8.

iii. The Philosophical and Social Dimensions

Metal letters that enable mass printing were first invented in 1234 AD in Korea. . . . But the idea of copyright as a private property did not develop simultaneously . . . today's Korean authors think it unworthy of them to make monetary profits or file lawsuits in connection with their works.

Much of the developed world extends protection to intellectual property on the assumption that the creators or inventors of a work or product have a natural right to the fruit of their labors. Such a theory supports the investment of proprietary rights in the product of one's innovation; hence the term intellectual property. What this theory fails to note, however, is that the proprietary interpretation is

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58 See Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations: Agreement on Trade Related Aspects of Intellectual Property (Article 7) done at Marrakech, Morocco, April 15, 1994, as reprinted in The Results of the Uruguay Round Multilateral Trade Negotiations — The Legal Texts 2-3 (GATT Secretariat ed., 1994) [hereinafter TRIPS Agreement].

59 Trebilcock & Howse, supra note 8 at 265.

60 Y. Sik Song, "General Application and Implementation: Legal Remedies and Implementation" (Address to the International Symposium on the New Copyright Law - Challenge of the New Copyright Law in a Changing Environment, 22 January 1987) [unpublished].
not universally accepted. As the words of Korean attorney Young Sik Song in the above quote illustrate, the products of innovative activity are believed by some LDCs to be the common heritage of all and for the common benefit of all. This distinct difference in moral ideology forms a ridge between the North and South that, unfortunately, too often goes unnoticed. It may be that a philosophical dimension underlies much of the economic and political rhetoric that is the focus of the international IP debate. Without recognizing its importance, or for that matter its existence, the movement toward a compromise is bound to grind into deadlock.

Yet this philosophical dimension of the debate is often exaggerated. The claims, such as those by Sik Song which are made in consideration of the philosophical dimension are often intertwined and confused with claims that more aptly reflect the social dimension of this debate. Complaints of economic losses from piracy voiced by developed countries are responded to with claims by LDCs that imitation is the lifeblood of their development strategies. This is not necessarily a difference of opinion that stems from a fundamental philosophical barrier between North and South. Rather, it is a difference of opinion that is generated from the fact that developed countries aspire for economic productivity and efficiency while less developed countries aspire to merely escape their less developed status. What each side fails to recognize is that the aspirations of the other are distinctly different from their own. As mentioned at the outset of this paper, the policy choices which delineate the extent of each regime of intellectual property reflect what intellectual activities a society values and what activities it sees as worthy of protection. These values are, in turn, shaped by the aspirations of a country. Consequently, the framework for IP protection in each country will vary to reflect policy choices that are made in light of the aspirations of that country. These aspirations

61 Song, supra note 60.
62 Braga, supra note 42.
63 P. Goldstein, Remarks (1989) 22 Vand. J. Transnat’l L. 363. Goldstein uses the copyright regime as an example of the fact that a country will shape its IP policies in response to its economic, political, social, moral, and cultural aspirations. The U.S. Copyright Act, 17 uscA. §101 et. seq., for example, lays out the exclusive rights that attach to copyrighted subject matter and then trims these rights to respond to particular needs in the country. Exemptions such as photocopying for library or
are not necessarily bound by moral considerations. Rather, they have social connotations and are linked to a country's developmental needs.

It is at this point that the philosophical dimension of the debate embraces the social dimension. Earlier, it was recognized that one of the competing interests to be balanced in justifying an economic rationale for IP protection was the social benefit of an innovation. The pharmaceutical industry was used as an example, noting that a balance needed to be struck between the potential social benefit of the free exchange of knowledge and the benefit of an increased incentive to innovate resulting from stronger IP protection.

To this equation we may now add another variable; that of reward for the expenditure of labour that has resulted in the creation of a socially desirable product. For a developed country, the scales may tilt more in favour of a protectionist strategy, while for an LDC, the balance may be found somewhere closer to an open policy conducive to spreading the benefit of a creation with socially beneficial potential among all. For an LDC, the addition of this new variable, that of reward, is not in line with its aspirations. It makes little moral sense, from the point of view of a country struggling to enhance the standard of living of its citizens, to withhold the benefits of a socially beneficial product for the sake of rewarding its creator. This point of view is exemplified by the attitude of the Brazilian Government, which approaches intellectual property rights in the context of Brazil's overall program for economic development. Gadbaw and Richards point out that:

To the Brazilian government, industrial property is viewed primarily as a technology transfer issue. In striking a balance between providing protection for industrial property rights and making technology available to Brazilian firms at the lowest possible cost and with minimum restrictions on its use, the Government of Brazil has, since 1945, placed far more emphasis on the latter.\textsuperscript{64}

\textsuperscript{64} Gadbaw & Richards, \textit{supra} note 7 at 150.
This philosophical and social barrier between the interests of the North and South is well illustrated within the regime of copyright protection, and in particular, the protection of copyright in educational materials. It is well recognized that to overcome economic backwardness, LDCs must, to some extent, focus on eliminating illiteracy and enhancing cultural development. However, the establishment of a well-designed educational system is dependent upon a supply of books. For the countries of Asia, Africa, and Latin America a state of "book hunger" is often seen as standing in the way of economic progress.65 The importation and reproduction of printed educational materials is thus imperative in LDCs. However, copyright protection, and the payment of royalties to foreign authors, inevitably makes this a difficult task. The cost of a legitimate textbook, after all royalties, licenses, or repatriation of profits are accounted for, is approximately $30 (u.s.). The same textbook in its pirated version can cost as little as $6 (u.s.).66 Under the initiative of LDCs, a special Protocol including definite, though minimal, allowances regarding the usage of protected works for educational or scientific purposes, was accepted at the Stockholm Diplomatic Convention of 1967. The Protocol was, however, blocked by developed countries, largely due to the campaigns against ratification led by large publishing enterprises, and the measures outlined in it were never implemented to their full extent.67 While licensing schemes are used today to allow for less expensive means of distributing educational materials in LDCs, they are usually temporary in nature, permissible only until the publishers themselves are able to establish themselves in the country.68 What is apparent, in any case, is that the attitude of developed countries toward the needs of countries on the road to development is too often one of indifference or, at most, perfunctory sympathy. This attitude itself stems from the different

67 Boguslavsky, supra note 65.
68 Brenner-Beck, supra note 12 at 100.
aspirations of developed countries as compared to those of the LDCs. As one critic has proposed,

[Any] . . . standard or set of standards applied . . . will have to be a standard that incorporates balances . . . [and] the balance employed will not be a uniquely American balance. There is no reason for it to be a uniquely American balance because there is no reason to believe that any other country has the same societal, cultural, moral, or economic aspirations as the United States. 69

The question, however, is whether a standard that is not uniquely American is a realistic one to aim for. Despite the obvious need for compromise, the developed countries and, particularly, the U.S., appear unwilling to recognize the special circumstances of less developed countries.

2. A Closer Look at the Conflicting Agendas

What follows is a more detailed consideration of the most common claims put forth by each party to the debate. The more general description of the forces that shape the debate, as outlined above, may be seen to be played out in these arguments and should be kept in mind as the arguments are developed.

i. The Perspective of the Developed Countries

The claims of developed countries in favour of increased IP protection in the international arena focus on the benefits of such protection to the LDCs. It should be assumed that IP protection is also seen to be critical to developed countries' ability to maintain their competitiveness in the world marketplace.

a. Global Innovation Deterrence

The first claim made by the developed countries is founded in the classical economic rationale for IP protection described earlier: that increased protection leads to incentives to innovate. According to the developed nations, the presence of free riders or imitators in the international arena has had a detrimental effect on the world

69 Goldstein, supra note 63 at 364.
incentive to innovate. While the impact may be felt in all regimes of intellectual property, it is particularly marked in the regime of patents. In the absence of adequate patent standards, it is suggested that producers will refrain from making the relatively higher cost and higher risk investments in research and development to produce new technologies because it becomes more difficult to recoup the cost of this investment. Less worldwide innovation, regardless of where it is engaged in, yields fewer benefits for all, including the LDCs.

The extent of the piracy problem, as illustrated by statistics, make this quite clear. Sales of legitimate pharmaceuticals in Argentina, Brazil, Korea, Mexico and Taiwan amounted to $162 million, while pirate sales equaled $192 million. Smith-Kline Beckman, a large U.S. pharmaceutical firm, produces a drug called Tagamet which sells for approximately $1.68 per daily dose. The drug has been copied by Thailand’s Biolab Company and marketed in Thailand under the name Cimulcer for a cost of $.61 per daily dose. In turn, Cimulcer competes with at least “25 generic versions of the same drug . . . which sell for as little as $.34 per daily dose.”

Given that the largest projected growth in pharmaceuticals sales is expected to be in LDCs, the incentive effect to engage in research and development to develop drugs like Tagamet is likely to be limited by this type of appropriation.

Additionally, the developed countries emphasize that the innovation-deterring impact of inadequate IP standards may have a particularly detrimental effect on the LDCs themselves. They note that many multinational companies would be deterred from developing new technologies or conducting research into new uses of existing technology that deal with problems specific to LDCs. For example, Merck, a large pharmaceutical company which had developed a drug used to treat worm parasites in livestock, later discovered that the same drug may have had the potential to cure


71 Tussie, supra note 16.

72 Guterman, supra note 70 at 126. The pharmaceutical industries of developed countries, particularly the U.S., form perhaps the most influential private sector groups pressing for higher universal patent standards worldwide. Guterman notes that their efforts are largely motivated by the extensive appropriation of patented technology that takes place in developing countries.
River Blindness in humans, a disease which approximately 18 million people in developing countries are afflicted with each year. Without the patent rights to the drug, Merck would not have had either the resources or the incentive to conduct the extensive research and clinical trials which led to the discovery that the drug could be used to treat one of the most crippling diseases plaguing less developed countries.73

b. Increased Foreign Direct Investment and Technology Transfer

LDCs themselves argue that the importation, or for that matter, reproduction of products with high intellectual content are vital to their development goals. In response, developed countries note that it is unlikely that a company will have the incentive to either transfer technology to or directly invest in LDCs which do not maintain adequate IP standards.74 In a 1987 survey, seventy-five percent of U.S. companies surveyed perceived inadequate protection of intellectual property as a strong disincentive to license technology to LDCs.75 Publishing companies also note that higher standards of copyright protection would likely lead to greater direct investment in publishing facilities within LDCs, allowing for the production of educational materials critical in resolving the characteristic “book hunger” of the Third World.76 Given the advantages of low labour costs and other incentives offered by many LDCs, it is not unreasonable to expect a significant interest in both direct investment and technology transfer by developed countries if IP protection were to improve.77

73 See R. M. Sherwood, Intellectual Property and Economic Development (Boulder: Westview Press, 1990). See also T. J. Richards “Argentina” in Gadbaw & Richards, supra note 7 at 109-146. Richards points out that it is generally recognized in Argentina that neither multinational companies nor Argentine national companies are carrying out research and development tailored to the unique needs of Argentina (for example, special vaccinations for cattle). Lack of patent protection is clearly a major reason for this, although the relatively small size of the Argentine pharmaceutical market may be another.

74 Braga, supra note 42.


76 Boguslavsky, supra note 65.

77 Braga, supra note 42.
c. Stagnation of Indigenous Innovation and the “Brain-Drain”

Developed countries also argue that the lack of IP protection leads to reduced indigenous innovative activity. It is often contended that the pirate industries of the LDCs foster a reliance on foreign innovation and create a disincentive to domestic creativity. As Brenner-Beck suggests, “this ‘copy-cat’ mentality in the LDCs destroys these nations’ ability to sustain domestic innovation and escape their ‘lesser developed’ status.” The local culture of many LDCs is often overwhelmed with cheap imitations of foreign movies, videos, books, and music. IP protection, it is suggested, could lead to the development of highly profitable and entirely genuine domestic industries. An example is provided in Indonesia, which implemented a new copyright law in 1987. The media has experienced an upsurge as many business groups have launched new magazines and newspapers as a consequence. Domestic literature stimulates local cultural awareness, a factor that is considered to be important to the development goals of a country.

Developed countries push this argument further with the claim that, beside removing the incentive for domestic innovation, inadequate IP protection leads to a “brain drain,” as highly trained or educated personnel actually emigrate from the LDC to more developed countries where their innovations can be better protected. This can lead to a direct loss by means of the emigration of personnel involved in the innovative process itself, as well as a secondary loss, as existing direct foreign investment and technology transfer become less efficient because of the absence of these personnel.

ii. The Perspective of the LDCs

The claims of LDC’s can be classified into two categories. The first encompasses a set of claims which raises skepticism as to the benefits promised by IP protection, as advanced by the developed countries. The other notes that the short term cost of increased protection is much too significant to ignore.

78 Gutterman, supra note 70.
79 Brenner-Beck, supra note 12 at 95.
80 Gadbad & Richards, supra note 7.
81 Brenner-Beck, supra note 12 at 95.
a. Skepticism of the Indigenous Innovation Claim

LDCs are quick to note that their comparative advantage lies in imitative as opposed to innovative activities. Most LDCs simply lack the technical expertise and skill required to engage in innovative research and development. The so-called “brain drain,” they argue, is more of an anomaly than a by-product of inadequate IP protection. Even if qualified personnel were to remain within the borders of an LDC because of the availability of IP protection, there would remain insufficient resources to engage in innovation to an extent that would be necessary to make such IP protection beneficial to the LDC.82 The LDCs further argue that domestic innovation, to the extent that it exists, tends to be limited to the ability to make incremental changes to existing technology to adapt it to the unique requirements of their developing economies. Increased IP protection, then, may actually hinder domestic innovation by blocking the imitation and adaptation of technology that is generated in developed countries.83 In any event, there is inconclusive evidence to attach any merit to the claim that increased IP protection will stimulate domestic innovation. In fact, the statistics paint a picture quite opposite. In 1983, foreigners held 90 per cent of patents awarded in LDCs with IP regimes. Inventions by LDCs’ nationals in the same year accounted for only 1 per cent of the world patent stock.84

b. Skepticism of the Claim of Increased Technology Transfers and Direct Foreign Investment

It is important to note that there is no conclusive evidence to suggest that increased IP standards are linked to the rate of foreign direct investment or technology transfers. In fact, after the 1961 abolition of patent protection for pharmaceuticals in Turkey, the amount of direct foreign investment in the pharmaceutical sector actually increased and no appreciable decrease in technology...

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83 Ibid.

transfer resulted. In light of this lack of evidence, LDCs argue that the actual motives of multinational corporations strongly refute the claim that LDCs may benefit from IP protection. Where IP protection does exist, it is claimed that the majority of multinational corporations take out patents or copyrights within LDCs to protect their export markets, both in the LDC itself and in other countries. These patents and copyrights are often used to block competition from improved goods and to restrict price competition. Less than ten percent of patents obtained in LDCs are actually worked within the LDC. Evidence shows that the foreign patents typically become vehicles for the development of monopolies by multinational corporations. The result, ironically, is the development of an IP regime which actually functions counter to the development goals of the LDC. Large import monopolies are established, competition is restricted, and the desired increases in foreign investment and technology transfer are not witnessed.

c. The Displacement of Piratical Industries as a Barrier to Development

Noting again the comparative advantage they hold in imitation as opposed to innovation, LDCs point particularly to the benefits of piracy to their economies. They note that imitation of imports allows for an adaptation of products to meet the local needs and conditions of the LDC.

For example, textbooks may be translated into local languages and sold at a cost that is affordable to consumers. Once rooted in the local economy, the entrepreneurial skills and machinery needed to produce even ‘copycat’ products becomes refined, and a much-needed market for exports to other countries, especially other LDCs, develops. In this sense, piratical industries strengthen the medium to long-term ability of LDCs to compete in the international arena.

In response to the claims of the developed countries that imitative industries will not move a country forward economically, LDCs argue that this ability to compete at an international level will allow them to escape lesser developed status. This is not a novel

86 Ibid.
87 USITC Study, supra note 24.
88 Reichman, supra note 23.
argument. Indeed the tolerance of imitative industries in Japan during the early stages of its economic growth is often claimed to have set the stage for the economic strength of the country today.\textsuperscript{89}

d. Short-Term Costs are Prohibitive

LDCs point out that the cost of initiating and maintaining an IP regime would be prohibitive, at least in the short run. A system of IP protection would involve costs including the development of registration processes, the implementation of judicial procedures, and the hiring of examiners, to list a few. The result, as noted by Alice T. Zalik, is that

Many developing countries [would be] faced with the prospect of spending a great deal of their resources to provide a system of protection which, at least initially, will be to the benefit of foreign . . . rather than domestic intellectual property owners.\textsuperscript{90}

Furthermore, the payment of royalties to holders of IP rights would result in increased short-term costs, which, ultimately, would be passed on to consumers in the form of higher product prices. The argument is strengthened when the product in question has a social benefit component to it, as illustrated by the increased costs of textbooks and pharmaceuticals considered earlier.

V. IS A UNIVERSAL STANDARD FEASIBLE?

In light of the conflicting agendas of the North and South, it is questionable whether a set of universal standards that will be acceptable to all is a feasible resolution to this debate. Without one group giving in to the demands of the other, the debate over IP protection in the international arena may remain in a stagnant state of unresolve. Perhaps the debate itself is focused too sharply upon a solution which itself needs to be re-evaluated. It is submitted that the objective should be shifted from establishing a universal standard of protection applicable to all countries to establishing flexible standards of protection tailored to a nation’s stage of development.

\textsuperscript{89} Tussie, \textit{supra} note 16.

1. The Multi-Lateral Conventions

To some extent, a "tailored approach by exclusion" has been the practical result of much of the negotiation that has taken place in the multilateral context. To date, multilateral conventions have included broad exemptions, and in some cases, complete exclusions from the terms of these conventions, for LDCs. For example, the Paris Convention includes a provision which allows a member state to refuse to offer patent protection for certain product groups, provided that the absence of protection applies equally to nationals and non-nationals. This permits de facto discrimination, whereby countries that have no significant comparative advantage in the production of certain innovations are able to exclude them from protection.

This loophole or, in the eyes of some critics, compromise, allows LDCs to effectively circumvent the minimal standards of the Convention.91 The Berne Convention has a similar provision of appeasement, which permits LDCs to substitute compulsory licensing for the minimum standards of the Convention.92 These exemptions may be seen as reflecting a compromise on the developed countries' end of the bargaining table, in recognition of the unique conditions of LDCs. However, broad exemptions from the provisions of multilateral agreements fail to deal with the crux of the problem; the fact that most LDCs are simply not ready for enhanced IP regimes. A more structured set of criteria by which readiness for adherence to minimal standards of protection can be evaluated, is required.

The most recent round of GATT, in which developed countries attempted to link IP with trade, provides another example of the failure to achieve a truly uniform standard of protection without broad exceptions for LDCs as a group.93 The resulting TRIPS Agreement attempts to reach a compromise between the objectives of the developed countries and the needs of LDCs. According to Article 7 of the Agreement,

the protection and enforcement of intellectual property rights should contribute to the promotion of

91 Trebilcock & Howse, supra note 8.
92 Ibid at 258.
93 Ibid at 271.
technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.\textsuperscript{94}

The TRIPS agreement does not refer to the factors to be considered in meeting this objective. Further, the Agreement also establishes a Council which will “undertake reviews in light of any new developments which might warrant modification or amendment of the Agreement.”\textsuperscript{95} Part II of the Agreement contains substantive norms with respect to the protection of the various forms of intellectual property. To a large extent, the provisions of the Paris and Berne Conventions are integrated into the TRIPS agreement and new forms as well as new levels of protection are provided for.\textsuperscript{96} Again, no consideration of unique country circumstances is apparent, except for clauses which provide for a transition period of five years to LDCs, and complete exemptions for the least developed countries.\textsuperscript{97} How, then, has the TRIPS agreement facilitated the compromise between North and South? First, it has established the objectives of a compromise. Second, it has provided the tools to facilitate the compromise. What it has not done is provide the instructions by which those tools may be used in constructing the compromise.

2. The Threshold: Criteria for Constructing the Compromise

In constructing a compromise between North and South, instructions, or criteria, which assess the unique circumstances of each LDC need to be developed and utilized, as opposed to considering all LDCs as a whole and applying transitional periods and broad exemptions to them as a group. In developing such criteria, the foundational economic rationales used to justify IP protection in the international context must be re-examined.

It was noted at the outset that any resolution of the issue would require a balancing of interests, both nationally and internationally. In the context of this balancing act, it was accepted that the

\textsuperscript{94} TRIPS Agreement, supra note 58, Article 7.
\textsuperscript{95} Ibid. at Article 68.
\textsuperscript{96} Trebilcock & Howse, supra note 8 at 264.
\textsuperscript{97} Ibid.
compromise chosen would likely be one that is Kaldor-Hicks efficient; the gains in economic welfare attributed to the benefits of the standard chosen will be seen as outweighing the losses in welfare that result from its costs. This state of compromise is needed because the countries involved are at different stages of development. Where the u.s., for example, gains from a high standard of copyright protection because it is the world’s leader in the production of software, Brazil may suffer a loss in its domestic software piracy industry because it has a comparative advantage in appropriating software. However, there is a point in the stage of its development when a country like Brazil will begin to weigh its interests quite differently. It is at this point or stage that a certain level of industrial infrastructure, entrepreneurial initiative, and education sufficient to make the establishment of an intellectual property regime beneficial to the country will be seen to exist.\(^98\) In essence, a shift in the comparative advantage from imitation to innovation will be witnessed. A country witnessing such a shift can be said to have reached the threshold of development at which it is in its best interest to establish an intellectual property regime. Piracy fuels the growth and development of such a country’s development and enhances its technical capacity up to the point at which it reaches the threshold. Then, the positive consequences of increased protection touted by the developed countries begin to materialize.

Various studies of LDCs conclude that a number of variables suggest that a country has reached this level of development.\(^99\) A complete examination of these variables would be well beyond the scope of this paper. In a more succinct manner, the identifying features can be classified into three categories. First, an LDC needs a literate work force and the existence of trained scientific and technical personnel to attract foreign investment, utilize transferred technology, and implement and sustain domestic inventive ability.\(^100\) Second, a level of industrialization and industrial

\(^98\) See e.g. Brenner-Beck, supra note 12 at 102-3.
\(^99\) Infra notes 100, 101, 102 & 103 and accompanying text.
\(^100\) E. Salem (1988) 12 Far East Economic Rev. 59. Salem suggests that education may be the most important element of the threshold and may be a key factor holding back many LDCs from reaching a developed status.
infrastructure sufficient to support an IP regime is essential. Thirdly, base levels of domestic capital mobilization rates and levels of entrepreneurship must be in existence. These factors enable domestic enterprises to participate in and gain from the incentives provided by IP protection.

3. Do the Threshold Criteria Mitigate the Barriers?

Earlier in this paper, the economic, political, philosophical and social forces that shape the IP debate were examined. If each of these forces are considered, this time in light of the threshold criteria outlined above, the barriers they impose upon an effective resolution of the debate appear to be mitigated.

i. The Economic Dimension

Consideration of the threshold criteria would allow for a more economically efficient resolution to the debate. Each country involved would have more to gain and less to lose from the implementation of an IP regime. Essentially, such an approach would guarantee a higher level of Kaldor-Hicks efficiency; the gains would outweigh the losses to a greater extent. This approach also respects the principle of comparative advantage by allowing IP regimes to develop when the LDC shifts its comparative advantage from imitation to innovation, a shift that makes such a regime is in the best interest of the LDC.

ii. The Political Dimension

As noted earlier, the decision to reject or establish an IP regime is not made solely on economic grounds without consideration of potential political implications it may have. Political pressure aimed at LDCs to procure adequate protective standards could, using the

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101 Brenner-Beck, supra note 12 at 104 suggests that “[i]ndicators of this industrialization include the overall annual growth rates in GNP, the annual growth rates in industry and manufacturing sectors, per capita energy consumption, and annual energy production.” See also J. Maclaughlin et al., “The Economic Significance of Piracy” as cited in Gadbaw and Richards, supra note 7. MacLaughlin notes that increased growth rates of only .07 per cent to .2 per cent were needed to offset the short-term costs of eliminating piracy.

102 See Brenner-Beck, ibid. at 104 where he notes that this element may be reflected by domestic investment and savings rates.
threshold criteria, continue to play a significant role. One recent study identified certain nations which appear to have reached the threshold but which do not maintain levels of IP protection expected from their level of economic development. Political pressure sufficient to initiate action on behalf of these “out of phase” nations may be suitably called for.

In most cases, however, the required political pressure will be generated internally. In Taiwan, for example, private sector interest groups became actively involved during the consideration of implementing stronger copyright, patent and trademark laws. Acer, a Taiwanese company that produces computer hardware, is one such example. It was responsible for the introduction of the Intel microprocessor to Taiwan in 1975. Improved patent protection was called for by Acer and other Taiwanese companies in the fear that domestic industries were suffering from lax protections. Taiwan increased its copyright protection in 1985 and 1989, and its patent protection in 1985. Consequently, Acer has moved into the production of computers developed by its own in-house research and development staff. Notably, Chase Manhattan Bank recently invested U.S. $1.4 million in Acer and Texas Instruments has entered into a joint venture with the company to produce semiconductors. What is evident from this example is that the call for increased protection comes from within a country and is supported as being in the best interest of a country when it has reached the threshold level of development. As such, external political pressure assumes a less essential, albeit important, role as a persuasive force for the adoption of higher IP standards.

iii. The Philosophical Dimension

From a philosophical viewpoint, LDCs were said to have accepted an ideological perspective distinct from the developed countries’ perception of intellectual property. However, this philosophical perspective was intimately linked to the LDCs social, cultural, and moral aspirations. In other words, while the ideological conception

103 R.T. Rapp & R.P. Rozek, “Benefits and Costs of Intellectual Property Protection in Developing Countries” (1990) 24 J. of World Trade 75 at 81. Rapp & Rozek identify the countries of Indonesia, Turkey, Brazil, Argentina, and Mexico as potential beneficiaries of intellectual property protection.
104 Brenner-Beck, supra note 12 at 113.
of attaching property rights to products of the mind may be novel to LDCs, it is novel primarily because the conception runs counter to their development objectives rather than because of any inherent moral objection to the concept in and of itself.

For example, it was seen that, for a less developed country, it made no sense to reward an innovator for the fruits of his or her labour when the consequence of doing so would be to restrict the dissemination of a useful invention or creative work that would help the country escape its lesser developed status. These aspirations gradually transform as a country reaches the threshold level of development. At this point, levels of education become commensurate to those of developed countries. Per capita GNP is high enough for citizens to purchase goods at prices comparable to those of developed countries. Industrial infrastructures and local entrepreneurialism have developed to the stage at which piratical industries are replaced with innovative industries which are themselves reliant on IP protection. While the social benefit of an innovation continues to be seen as an important interest to balance, the scale may tilt more in favour of increasing incentives to innovate and rewarding the fruits of labour. This shift in perspective is due largely to the fact that the development goals of the country, to which its aspirations are geared, have been met to a large extent once it reaches the threshold. Its aspirations, at the threshold, change from sustenance to prospering economically and competitively in a global marketplace.\textsuperscript{105} The latter inherently calls for increased IP protection.

4. Singapore's New Copyright Act as a Case Study

A study of Singapore's passage of and reaction to a change in its Copyright Act demonstrates the effect of increased IP protection when implemented by a country that has reached its threshold level of development. In the mid 1980s, of all the nations identified as a

\textsuperscript{105} See generally, Braga \textit{supra} note 42. Braga appears to accept the significance of the philosophical dimension to the IP conflict, particularly noting that the history of the evolution of national patent systems suggests that 'economic expediency' dominates legal and moral considerations. Where it is in the best interest of a country to embrace an IP regime, it will have the natural incentive to do so. This theme is supported by the approach of Goldstein, \textit{supra} note 63 at 36 where he notes that a country's IP policy will reflect its societal, cultural, moral and economic aspirations.
threat to developed countries because of high levels of piracy and counterfeiting, Singapore was the most likely candidate for having passed the threshold. A small industrialized city-state, by 1988 Singapore's per capita GNP had risen to $9,070. It had a highly skilled and educated population and, as an important international shipping point, its economy was highly dependent on foreign trade. Yet its copyright law was the subject of much criticism, both from within and outside Singapore. In particular, there were complaints of weak enforcement efforts, minor penalties, discrimination against foreign authors, and lack of protection for consumer software. In effect, the state of Singapore's copyright law was comparable to that of several other countries that are today at or on the verge of the threshold level of development.

In the early 1980s, Singapore was considered the world capital of piracy. Imitations of pirate music tapes alone was estimated to be an industry worth over $100 million (u.s.) annually. The u.s. government played a leading role during this period in encouraging Singapore to reform its intellectual property regime.

Early in 1982, representatives from the u.s. regularly visited Singapore in order to encourage the reform of its copyright laws. In 1984, an amendment to the U.S. Trade and Tariff Act allowed u.s. negotiators to threaten the loss of GSP benefits, covering $730 million of Singapore's exports in 1985, if the piracy situation did not improve. At around the same time as this u.s. pressure was invoked, the Singapore government itself implemented a strategy aimed at "supporting native creativity, encouraging foreign investment in technology, and transforming Singapore into a brain services center for exporting technological goods." This internal

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106 See e.g. Gadbaw & Richards, supra note 7 at 311-340.
107 See ibid. for a detailed analysis of the structure of the old and new laws and their major differences, as well as a critique of the old regime.
108 See Brenner-Beck, supra note 12 at 107. Brenner-Beck compares the state of Singapore's copyright regime, prior to its reform, to Malaysia, Taiwan, and Indonesia.
109 Ibid.
110 Gadbaw & Richards, supra note 7 at 339.
111 Ibid.
policy measure was motivated by interest groups which advocated increased protection within Singapore. Virtually all organizations which took a public position on the adoption of a new Copyright Act were supportive of increasing protection. Among organizations representing Singaporean companies, strong support was provided by the Singapore Phonogram and Videogram Association and the Singapore Book Publishers Association. The Consumers' Association of Singapore, in a written submission, stated:

With more stringent legislation to curb piracy, local authors will be encouraged to produce creative works. More foreign works may find their way to Singapore since foreign authors and publishers will be assured that their works will be adequately protected. In the long-run, the Copyright Bill 1986 will benefit the Singapore consumer.113

It is apparent that both u.s. trade pressure and changing economic aspirations that emanated from within the country, encouraged Singapore to pass new copyright legislation in 1987.

The new Copyright Act has been hailed as transforming Singapore's domestic audio cassette/record, video, and entertainment industries. The number of licenses sold to Singapore's video dealers by overseas copyright owners increased dramatically, resulting in increased profits for the dealers. Sales of legitimate records and cassettes doubled. Former cassette tape and video pirates became legitimate producers of blank cassettes and repair parts.

Music companies began to promote Singaporean singers, and started using local studio engineers, songwriters, and producers. The local film and video industry [came to life as it] was no longer possible to obtain copies of recently released movies from pirates.114

Prior to the passage of the Act, Microsoft had estimated that over ninety percent of its software packages sold in Singapore and Malaysia were pirate copies. The new Copyright Act included protection for computer software. Consequently, sales and

113 Report of the Select Committee on the Copyright Bill, A87, as cited in Gadbow & Richards, supra note 7 at 319.
114 Brenner-Beck, supra note 12 at 108.
investment by foreign computer and software manufacturers has increased. In fact, Singapore has been called a second “Silicon Valley.”

The results of the Act have not been positive in all respects, however. The success stories often understate the fact that many of the pirates have simply gone underground. Much of the piracy has been transferred to Malaysia, supplying Singaporean consumers from across the border. Video pirates are estimated to still control twenty percent of the market (compared to eighty-five percent before the Act was passed). Also, “music pirates have engaged in the counterfeit production of blank tapes.” While the bulk of copyright infringement has been eradicated, trademark infringement continues in the production of perfumes, liquors, and watches. Despite these inconsistencies, however, the passage and vigorous implementation of the new Copyright Act in Singapore has been a resounding success.

Singapore, like several other countries which are approaching or have passed the threshold level of development, was ready for change. It embraced a regime of copyright protection that was suited to its internal needs. While trade pressure played an important role in initiating change, it was the internal recognition that a new Copyright Act would benefit domestic industries and consumer welfare that was the driving force behind such change.

5. The Threshold Countries: Evidence of Success with Protection

Studies have suggested that a number of countries such as Mexico, Hong Kong, Singapore, Korea, and Taiwan have reached or are approaching the threshold level of development, and have been characterized as upper middle, or high income, economies. Each has per capita GNP levels far above the subsistence level and at least twice that of the average LDC. Literacy levels have surpassed seventy per cent, and all have a domestic scientific/technical capacity

116 Ibid.
117 Ibid.
118 Ibid.
119 Ibid.
120 Ibid.
sufficient to experience industrial growth and capital formation.\textsuperscript{121} Notably, all have been significant pirate nations, and continue, to some extent, to currently engage in piracy. Today, each of these countries has implemented some degree of IP protection. The successes of these regimes brings some support to the claims of the developed countries. That is to say, at the threshold level of development, enhanced IP protection may result in significant economic benefits to countries which engage in piracy.

Malaysia recently amended its \textit{Copyright Act} to provide increased protection, and joined the Berne Convention in 1990. “Search,” a new Malaysian rock band which has innovated a new style of Malaysian rock music, has been very successful in the country. The new style of music has captured a large following and has resulted in a quadrupling of both the number of record companies and the number of rock bands in Malaysia. Exports of music cassettes within the Asian market have also increased significantly as a consequence.\textsuperscript{122}

In 1987 and again in 1990, Korea revamped its patent laws to provide for greater protection. In response, a significant rise in the number of domestic patent applications has been witnessed. There have also been reports of a “reverse brain drain” whereby Korean scientists have returned to Korea to pursue research careers.\textsuperscript{123} Furthermore, Korean export printing revenues rose 41 per cent after the passage of a stronger copyright law in 1987.\textsuperscript{124}

Hong Kong also passed new and stronger copyright legislation in 1978. Consequently, local recordings accounted for 70 per cent of record sales. The country’s film industry is the third largest in the world. Its reliance on foreign sales, particularly to other Asian markets, in conjunction with strict copyright laws, has led to substantial revenues.\textsuperscript{125}

The success of one Taiwanese company, Acer, was highlighted earlier as a consequence of enhanced copyright legislation. The increased research and development activity undertaken by

\textsuperscript{121} \textit{Supra}, note 12.
\textsuperscript{123} Sherwood, \textit{supra} note 73 as cited in Benner-Beck, \textit{supra} note 12 at 112.
\textsuperscript{124} Brenner-Beck, \textit{supra} note 12 at 112.
\textsuperscript{125} \textit{Ibid.}
Taiwan's new high technology industries have also resulted in a "reverse brain-drain" phenomenon, similar to that in Korea, as Taiwanese engineers and scientists have encountered new research-related job opportunities.

VI. IS THE THRESHOLD APPROACH FEASIBLE?

The success stories suggest that the answer to this question should indeed be a resounding 'yes.' There remain, however, some unanswered questions as to the practical applicability of such an approach. In what forum will it be considered, and how will it be implemented? Perhaps more importantly, how will developed countries react to the use of threshold criteria?

1. The Forum of Negotiation: Bilateral or Multilateral?

While the threshold approach recognizes that the impetus for change must stem from within a country, it is unclear how the standards of protection will be decided. The case study of Singapore may be seen as an example. The context of negotiation in that case was bilateral in nature. It was the U.S. that engaged in the political tactics as well as friendly consultations that spearheaded the movement toward copyright reform in Singapore. However, the bilateral negotiations between Singapore and the U.S. took place prior to the signing of the GATT/TRIPS Agreement in 1994. Under the Agreement, a multilateral forum has been established to work toward the promotion of standards of IP protection that are mutually acceptable to both developed countries and LDCs. To debate the appropriateness of this forum would be rather moot at this point, for it is unlikely that the TRIPS agreement will be severed from the mandate of the WTO any time in the near future. Efforts of the LDCs to re-direct intellectual property toward the WIPO forum, where they would be detached from trade considerations, have clearly failed. If the issue is to be addressed in a multilateral forum, it will likely be done so within the WTO and TRIPS Agreement.

126 Ibid. at 107.
127 TRIPS Agreement, supra note 58.
2. A Proposal: The “Sliding Scale” of Protection

The TRIPS agreement provides the tools for reaching a compromise, but fails to include the instructions. The threshold criteria, it is submitted, could and should serve as the instructions. A “progressive” or “sliding scale” approach toward IP protection should be implemented. The sliding scale would demarcate various regimes of IP protection and various industries to which those regimes would apply. An LDC would be expected to establish specific regimes of intellectual property in specific industries when and where this would be suited to its stage of development. Instead of wholesale exemptions from standards, less restrictive minimum standards would apply to the least developed countries, and these standards would be gradually phased-out and upgraded as the nation develops and is able to sustain higher levels of protection without adverse consequences. However, once a country reaches its threshold level of development, it would be required to adopt the minimal standards outlined in the TRIPS Agreement, which would essentially serve as the upper-end of the sliding scale. The Council to administer the TRIPS Agreement would be allocated the task of periodically reviewing the status of LDCs and their respective position on the sliding scale of protection. In making their assessment, the threshold criteria should play a vital role.

The proposal outlined above, which functions in the multilateral context, does not preclude the use of complementary and conjunctive bilateral negotiations, as was illustrated by the case study of Singapore. Indeed nothing in the TRIPS Agreement would prevent the use of bilateral negotiations or even unilateral trade measures, as long as they conform with the provisions of GATT itself.

128 Note that the proposed scheme allows for gradual adherence to IP standards not only by regime of protection, but also by industry. For example, a threshold country may be seen to be ready for extensive patent protection, but not for copyright protection in all industries. Its copyright regime would thus be altered to allow for higher standards of protection for audio cassettes and film, for example, but protections for textbooks and other educational materials might continue to remain as they were.

129 Trebilcock & Howse, supra note 8.
3. Reluctance of the Developed Countries

Use of a sliding-scale, and the threshold criteria to implement it, precludes the establishment of a universal standard of IP protection among all countries. In doing so, it may lead to standards of protection that are not adequate to prevent the damaging effects of piracy and counterfeiting in countries which have the worst reputations for these activities. It may be difficult for developed countries, particularly the U.S., to accept such a compromise. However, a fair argument may be made to suggest that the degree of protection espoused by the sliding scale may be greater than the degree of protection under the existing TRIPS agreement, given the exclusions that TRIPS currently allows for some of the least developed countries. Essentially, LDCs will be required to comply with lower standards as opposed to being excluded altogether. Furthermore, the sliding scale would ensure that these same countries would be required to comply with higher standards as they develop, by means of the explicit criteria that would be used to administer their progress. This prevents countries from adhering to levels of IP protection that are seen as out of phase with the state of their development and would lead to continual increases in protection even before the threshold is reached, a situation that is unlikely under the more static TRIPS agreement as it stands to date. Despite its advantages, the proposal clearly calls for a good faith compromise on behalf of developed countries, particularly the U.S. Whether they will acquiesce to such a compromise is indeterminable. It may validly be argued that the developed countries have gained too much in the Uruguay Round to succumb to the demands of a compromise more favorable to the LDCs at this point. However, while the TRIPS agreement was included in the Final Act of the Uruguay Round, it should not be interpreted as a final resolution to the IP debate. Further negotiation and refinement of the compromise reached in the TRIPS Agreement is foreseeable in the future. And as J.H. Reichman notes, the compromise will depend upon "good faith negotiation and cooperation between states, in a manner that takes into account the interests of the developed countries without prejudicing the

interests of developing countries.” The implementation of TRIPS, and a review of its substantive content, is a key issue. It is the author’s contention that the nature of the compromise reached in the Agreement should be re-evaluated at that time.

VII. CONCLUSION

Necessity may be the mother of invention, but it is not often recognized that economic growth is invention’s child. Brenner-Beck’s words are an eloquent testimonial to the fact that a resolution to this debate will require an empathetic compromise and mutual concessions. The beliefs, needs, and aspirations of less developed countries stand in stark contrast to those of LDCs. To impose upon these LDCs a set of ideals that are ill-suited to their economic reality is inefficient and unrealistic.

The North-South IP debate unfolds in an environment of tension, and these tensions will not easily be tempered. It is the author’s submission that the debate itself needs to be redefined if these tensions are to be mitigated. The push for a universal standard of protection by developed countries should be re-thought and re-formulated to take into consideration each LDC’s unique circumstances. A tailored approach, in which a country’s intrinsic readiness for an IP regime is considered, is best able to meet this objective. Such an approach is feasible within the framework of the existing TRIPS Agreement. Acceptance of the threshold approach will not come easily. It is clear that developed countries, in particular, will have hesitations. Negotiation, persuasion, and to some extent, reflection on the failures of the past, will be required before a common consensus, and hence a resolution to this debate, is achieved.

131 Ibid. at 382.
133 Brenner-Beck, supra note 12 at 84.