

SOME ECONOMIC AND PHILOSOPHICAL CONSIDERATIONS IN PROTECTION OF INTELLECTUAL PROPERTY: A PERSPECTIVE FROM INDIA ⁺

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Borrowing from Jurisprudence and Law and Economics, this paper seeks to establish that the existing intellectual property rights regime under TRIPS stipulates inefficient and overly stringent forms of protection. It has been suggested that an ideal regime must not afford a homogeneous protection. Distinction must be drawn, for instance, between want-based and need-based (life saving) products. It has been submitted that a weak IPR regime in need-based products is a reasonable restriction upon the individual rights of the innovator to ensure emergence of competitive markets and fair pricing, albeit justifications may be found for stronger protection for want based goods.

I. INTRODUCTION

The focus of economics is not related to “money or the economy, but the implications of rational choice.”¹

This paper is accordingly geared towards gaining an understanding as to what is the right choice in the context of developing countries, especially India: a strong intellectual property regime as advocated by the adherents of TRIPS or a weak intellectual property regime, for instance, a patent regime with a narrower

⁺ Part I of this paper was presented in The National Workshop of Intellectual Property Rights at IIT, Kanpur, 2007. Part II and Part III of this paper were presented at the Humboldt University, Berlin, 2007. We received helpful comments from participants in the above mentioned workshop and seminar.

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¹ DAVID D. FRIEDMAN, LAW'S ORDER: WHAT ECONOMICS HAS TO DO WITH LAW AND WHY IT MATTERS 8 (2000).

scope and duration of protection. The main argument for a strong regime of intellectual property rights is well summed up in the following statement of a former US Secretary of State, “it is the fundamental fact of nature that people will not go through the expense of development of new ideas just for the altruistic benefit of the human race.”² In addition, there is the individualistic argument of rewarding the labour, be it intellectual or physical in nature. Further it is argued that IP protection is justified because it makes the creator better off without depriving anyone else of anything to which he or she had prior access and use, i.e. it is Pareto-superior. After all, such content was not available to anyone until the creator produced it.³

The contra position to this is provided by the argument that only the protection of physical property rights is essential due to the scarcity of the resource⁴, because in the case of intellectual property, frontiers are infinite. It is this principle that has been followed in India, along the lines of the twin dicta—“[w]here the mind is without fear and the head is held high; where knowledge is free...”⁵ and “*[i]f you have knowledge, let others light their candles at it.*”

This paper will seek to analyze both these perspectives in order to determine the best possible position for the Indian context and the developing world as a whole. The paper seeks to highlight certain criterions that should be considered by international organizations, such as the WTO, while formulating expected norms and standards for protection of intellectual property. Further, this paper shall focus on the issue of patents, especially pharmaceuticals. Borrowing from principles of Jurisprudence and Law and Economics, this paper while conceding that protection of intellectual property is essential for innovation argues that, firstly, a strong patent regime may not be the only factor determining the rate of investment of resources in research and development of a drug. Secondly, the distributional and economic impact of an intellectual property regime may vary across nations; hence, the present standards need to be revised. Thirdly, extremely stringent norms of protection of innovations will usually result in over pricing and anti competitive practices. Hence, there exists a conflict of interests, which needs to be resolved in a manner consistent with free market economy and democratic principles.

² Daniel Glickman, as quoted in Vandana Shiva, *Agricultural Bio-diversity, Intellectual Property Rights and Farmers' Rights*, ECONOMIC AND POLITICAL WEEKLY 1621, 1621 (1996).

³ Adam Moore, *Privacy, intellectual property, and hacking in K.E. HIMMA*, READINGS IN INTERNET SECURITY: HACKING, COUNTERHACKING AND SOCIETY 12 (2006) (Wherein he states, “If no one is harmed by an acquisition and one person is bettered, then the acquisition ought to be permitted. In fact, it is precisely because no one is harmed that it seems unreasonable to object to what is known as a Pareto-superior move. Thus, the proviso can be understood as a version of a “no harm, no foul” principle”).

⁴ See STEVEN SHAVELL, ECONOMIC ANALYSIS OF PROPERTY LAW 11-13 (2003).

⁵ RABINDRANATH TAGORE, GEETANJALI, as quoted in B.P. Singh, *Bahudha and the Post-9/11 World*, MAN & DEVELOPMENT 7, 15 (September 2004).

The paper will proceed in three parts. The first section of the paper studies the benefits of a strong intellectual property regime along the lines of TRIPS, from the perspective of both the individual innovator and the society as a whole. The second section analyzes the arguments against a strong intellectual property regime substantiated with examples from the Indian pharmaceutical sector. In this part, it is specifically argued that even granting of product patents may not result in creation of incentive for innovation. Borrowing from the argument, it would be established that there exists a need to resolve this conflict of interests between the innovator and society. Through this discussion, in section three, relying upon the Indian Constitution, it is sought to be established that a weak IPR regime in need-based products, is a reasonable restriction upon the individual rights of the innovator to ensure emergence of competitive markets and fair pricing. This paper accepts that the gradual growth of the patent rights regime in various countries, with the increase in the level of development⁶ seems to indicate that a strong patent system is a natural outcome in course of developmental progress of a nation and further that Intellectual property regulation has “increased pressure on businesses to be creative and innovative.”⁷ But in our assessment, the issue of IP protection is best summarized in the words of Posner and Landes who believe that some protection of IP is necessary to provide sufficient incentives for innovation, but admit that various features of existing IP law are inefficient and hence too stringent.⁸ Along the lines of this hypothesis, it is contended that the present regime under TRIPS is unable to minimize the resultant deadweight loss in the society due to inefficient and overly stringent forms of protection.

II. JUSTIFICATIONS UNDERLYING INTELLECTUAL PROPERTY RIGHTS

This section of the paper is geared towards an extension of this argument in favour of a strong intellectual property regime.

⁶ See GRAHAM DUTFIELD, *INTELLECTUAL PROPERTY RIGHTS AND THE LIFE SCIENCE INDUSTRIES - A 20TH CENTURY HISTORY* 51 (2003)[hereinafter DUTFIELD] for the development in British law from 1770-1870. Further see LIONEL BENTLEY & BRAD SHERMAN, *THE MAKING OF INTELLECTUAL PROPERTY LAW* 17-18 (1999) [hereinafter BENTLEY & SHERMAN] here, it is explained how the law in this regard developed gradually through the inclusion of specific subjects in protectable category. The process began with sculptures of human and animal figures, followed by designs for cottons, linens, muslins and calicos, and then the grant of exclusive privileges to individuals for performing certain activities (for instance, Chemist William Cookworthy for sole use and exercise of a discovery of certain materials for making of Porcelain; or James Watt for the sole use and property in the steam engine).

⁷ See DUTFIELD, *supra* note 6, at 19.

A. INDIVIDUAL INNOVATOR'S PERSPECTIVE

The idea of a property right in abstract ideas was, at least at the time of their introduction, indeed difficult to accept.⁹ The proponents of rights in intellectual property raised two major arguments through which rights in the creative initiatives of people were justified. The first of these is based on Hegel's conception of identifying the personality through its external manifestations.¹⁰ Therefore, the idea or the external manifestation being a part of the personality of the innovator, he was entitled to property rights over the same.¹¹ The second argument relied on the labour of the innovator in coming up with the idea. Along the lines of Lockean theory, it was argued that this labour of the innovator, employed in the cultivation of the idea forms the basis of his right to title over the idea.¹² Both these individualistic approaches will form the subject matter of discussion in this portion of the paper.

For Hegel, property is a genre of freedom, and a person becomes entitled to a property right in a commodity only through the establishment of a personality stake in the same.¹³ Further he argued that a personality stake is established by the creation of "*a subjective relationship between the holder and the thing, and not on the objective arrangements surrounding production of the thing.*"¹⁴ Therefore, the only requirement being the establishment of a 'subjective relationship with the personality'¹⁵, any rejection of intellectual property on the basis of its nature being distinct from physical property¹⁶ becomes invalid. With regard to intellectual property, he stated specifically that, "[a]ttainments, eruditions, talents and so forth, are of course, owned by the free mind and are something internal and not external to it, but even so, by expressing them it may embody them in something external."¹⁷ This makes it sufficiently clear that in Hegel's conception, once an idea finds external manifestation in the form of a creation or an invention, it is a reflection of the personality. Even from an objective standpoint, the reflection of the personality through creation is an acceptable position. For instance, the works

⁸ R. POSNER AND W. LANDES, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 422 (2003).

⁹ See Yates, J.'s dissenting judgment in *Millar vs. Taylor* (1769) 98 ER 230 wherein he states, "while it was possible for a physical manuscript to be treated as a form of property, to extend this argument, beyond the manuscript, to the very ideas themselves was...very difficult, or rather quite wild," in BENTLEY AND SHERMAN, *supra* note 6, at 19.

¹⁰ See generally GEORG WILHELM FRIEDRICH HEGEL, *POLITICAL WRITINGS* 102-106 (Laurence Dickey and H.B. Nisbet ed., 1999).

¹¹ Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L. J. 287, 331 (1988).

¹² See BENTLEY & SHERMAN, *supra* note 6, at 23.

¹³ *Id.* at 335.

¹⁴ *Id.* at 335, wherein Hegel himself is quoted.

¹⁵ See *id.* at 336.

¹⁶ See Lord Gardenston in *Hinton vs. Donaldson* (1773), 25 as quoted in BENTLEY & SHERMAN, *supra* note 6, at 19.

¹⁷ Justin Hughes, *supra* note 11 at 336-337.

of a Picasso or a Tolstoy are wholly distinct from those of Van Gogh and Charles Dickens, due to the difference in the artist or author's personality reflected in the same. Even in the Indian context, upon the expiry of the copyright protection period over the works of Rabindranath Tagore, there was a great furor amongst the intelligentsia who were fearful that the character of the work would be destroyed due to the actions of over-zealous entrepreneurs.¹⁸ This went even to the extreme of a call for the treating of Tagore as 'a class by himself' and therefore enacting of a special legislation for the protection of his works.¹⁹ Though this personality argument works best in the case of literary or artistic works, it may well be extended equally to other areas. Surely the relativity theories cannot be said to be wholly distinct from Einstein's personality, and neither can Edison's light bulb be disjunctive from his. These being the life's work of a person, reflect upon his personality and may thereby, under Hegelian philosophy, be the subject-matter of property rights.

Coming to the Lockean argument, the basic focus here was that the labour invested in the commodity makes a person entitled to property rights over the same. Locke states in his Second Treatise of Government, "[Y]et every man has a property in his own person. This nobody has any right to but himself. The labour of his body, and the work of his hands, we may say, are properly his. Whatsoever, then, he removes out of the state that nature hath provided and left in it, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property."²⁰ Thus, Locke defines all matter on the Earth as having been given by god to man²¹, but grants the right of appropriating this common resource for private use through investment of labour in the same. The basic idea here is that "*labour should be rewarded*."²² The condition attached is that "there is enough and as good left in common for others."²³

This analysis may successfully be extended to intellectual property rights, if the answer to the following question is a positive one- "Whether the production of ideas actually does require labour?"²⁴

In this regard, some scholars conclude that Intellectual Property is not always the product of labour and hard work of the innovator and thus it should not be protected. However, it is argued that Intellectual Property is always result of labour, either in the form of the innovator's earlier endeavors which provide him with the requisite inventive capability; for instance, Graham Bell's invention of the

¹⁸ Sudipta Bhattacharjee, *Indian Copyright Act, 1957- Does it permit a parallel legislation*, (2002) 3 CAL. L.T. 47.

¹⁹ *Id.*

²⁰ JOHN LOCKE, THE SECOND TREATISE OF GOVERNMENT (1689), Chapter 5, para. 27 available at <http://www.gutenberg.org/dirs/etext05/trgov10h.htm>.

²¹ *Id.* at para. 25.

²² Justin Hughes in *supra* note 11 at 296.

²³ JOHN LOCKE, THE SECOND TREATISE OF GOVERNMENT, para.27.

²⁴ Justin Hughes, *supra* note 11, at 301.

telephone while he was working to invent a more complex form of telegraph, and/or as present efforts directed solely towards the manifestation of an idea. This argument is complemented by Justin Hughes who in his analysis states that “at least at some level of desires, the idea-maker probably prefers to be on vacation than to be in his office or laboratory...Although ‘idea work’ is often exhilarating and wonderful, it is something we generally have to discipline ourselves to do, like forcing oneself to till the fields.”²⁵ It is indeed true that the creation of ideas and inventions require a substantial amount of effort on part of the developer. For instance, Leo Tolstoy referring to his monumental work ‘War and Peace’ wrote, “publishing this work, on which I have spent five years of uninterrupted and exceptionally strenuous labour under the best conditions of life...”²⁶, and therefore emphasised the toil he had undertaken in order to produce the classic. Similar views have been expressed by other authors as well.²⁷ In terms of economics, the labour theory can be justified, if ‘labour’ and other resources of the innovator employed in innovating are nothing but a part of the cost of production. Further, the labour theory sits even better on scientific inventions, and other subject matter of patent protection. Thomas Edison, the inventor of the electric bulb and the famed holder of over 1093 patents, himself had to toil for two years, working on innumerable theories before inventing the bulb. He states in this regard, “[b]efore I got through, I tested no fewer than 6000 vegetable growths and ransacked the world for the most suitable filament material....the electric light has caused the greatest amount of study and has required the most elaborate experiments....Genius is one percent inspiration and ninety nine percent perspiration.”²⁸ Similar views have been expressed by others inventors and innovators.²⁹

As regards the second condition, it applies better to intellectual property, than to physical property. The extraction of ideas from the common pool by a person does not in any way affect the use by others, and does not hinder them from extracting something of the same quality and quantity.³⁰ Further, economists have further justified protection of intellectual property since it is a ‘pareto superior’

²⁵ *Id.* at 302.

²⁶ Leo Tolstoy, *Some Words About War and Peace*, RUSSIAN ARCHIVE (1868) as cited in LEO TOLSTOY, *WAR AND PEACE* 1345 (Penguin, 1997).

²⁷ See generally Fyodor Dostoevsky, *Letters II*, pp. 200-1 as quoted in FYODOR DOSTOEVSKY, *CRIME AND PUNISHMENT* (Wordsworth, 2000); JOHN LOCKE, *POLITICAL WRITINGS* 1-3 (David Wootton ed., Penguin, 1993); J.A. PARKS, *PRINCIPLES AND PRACTICE OF VALUATION* 5-9 (5th edn., D.N. Bannerjee ed., 1998).

²⁸ *A Spark of Light*, available at <http://sln.fi.edu/qa98/attic12/attic12.html> (last visited Jan. 2, 2005).

²⁹ See *Alexander Fleming 1881-1955*, available at <http://www.abc.net.au/science/slab/florey/story.htm> (last visited Aug. 22, 2007). (for the efforts Alexander Fleming and Howard Florey had to put in for discovering and extraction of Penicillin); *Pasteur, Louis (1822-1895)* available at <http://scienceworld.wolfram.com/biography/Pasteur.html> (last visited Jan. 2, 2005) (for the efforts Louis Pasteur had to put for his various contributions to science).

³⁰ Justin Hughes, *supra* note 11 at 315.

move. Thus, the labour theory of property expounded by Locke may well include within its scope property rights in intellectual matter.

Lastly, critics of intellectual property protection argue that unlike land, which is limited and rivaling, the protection of which is justified since it prevents tragedy of commons from occurring, intellectual property should not be protected. However, it is submitted that Intellectual property should be protected precisely for the reason that it is ever expanding and that its rate of expansion is proportional to the degree of protection. This proposition is best explained through this model-

Model I

$Y > 0, X > Y, B > A$ (since the duration of monopoly in the market would be longer.)

Nature of Regime	Cost of Time and Labor	Expected benefit	Output
No Protection	X	Y + A (the profit accruing due to the time taken by competitors to copy the innovation.)	If $Y + A > X$
Protection	X	Y + B (profit due to protection would vary with the scope and duration of protection provided)	If $Y + B > X$

We find that in case of no protection the rational individual would simply compare the cost and benefit that accrues to him exclusively before deciding to invest his labor and intellect into the manifestation of an idea. As a consequence, as depicted from the following table, a socially desirable creation or invention may not be created. However, in case of a regime protecting the creation, the probability of it being created increases and hence, the society may not be deprived of the invention.

B. SOCIETAL PERSPECTIVE

The first argument from the societal angle may in some sense be said to be a continuation of the Lockean justification. Abraham Lincoln summed up the argument in the following words, “[t]he patent system... secured to the inventor;

for a limited time, the exclusive use of his invention; and thereby added the fuel of interest to the fire of genius in the discovery and production of new and useful things.”³¹ It emerges here—from that the basic purpose behind a patent system is to provide a just reward and incentive to the creator for undertaking the labour required in order to come up with an invention. In the pre-intellectual property protection period, this was achieved by the state conferment of rewards.³² However, such a system may, for various reasons, be unfeasible in today’s context. The most important of these reasons would be the nature of intellectual activity today. The position is that “[t]he costs of doing R & D are increasing phenomenally”³³, thus it becomes imperative that adequate remuneration be made available to the people investing in intellectual activity for the same to continue. The patent system offers a better solution in this regard than public rewards due to what has been described as the metering role of patents. De Carvalho explains this by recognizing that the information cost of assessing the exact societal benefit of the invention in order to determine the just or adequate reward³⁴ for the same would be very high. Therefore, a better arrangement would be to leave it to the market system with lower transaction costs (in comparison with the information cost) to reach the most efficient solution³⁵ by assessing the exact utility of the invention.³⁶ The result is allowing patent rights, that is exclusive production and sale for a limited period, whereby the market forces apply to determine the utility of the product and accord appropriate benefits, through the mechanism of prices and extent of sale.³⁷

Further, not only does strong intellectual property protection provide a strong incentive for being creative, but it also acts as a disincentive against merely copying others’ work. Anselm Kamperman Sanders has stated in this regard, “*the competitor faces a market barrier equivalent to that encountered by the first market entrant, that the competitor would not encounter as a free rider, thus leveling the playing field and inducing him to be creative himself.*”³⁸ This incentive towards the creation of an innovative product, rather than merely copying what is already available is particularly important since “*this gives the consumer more*

³¹ As quoted in Harvey E. Bale, *Pharmaceutical Access and Innovation: Challenges and Issues*, 42 DEVELOPMENT REV. 84, 84 (1999).

³² See NUNO PERES DE CARVALHO, THE TRIPS REGIME OF PATENT RIGHTS I (2002) wherein it is stated, “[f]or thousands of years governments have relied on public awards to promote and encourage invention.” [Hereinafter DE CARVALHO].

³³ R. A. Mashelkar, *Nation Building Through Science and Technology: A Developing World Perspective*, MAN & DEVELOPMENT 27 (September 2004).

³⁴ The implicit understanding here is that the reward for a children’s toy and a cure for cancer can surely not be fixed at an equal level.

³⁵ ROBERT COOTER AND THOMAS ULEN, LAW AND ECONOMICS 98-99 (Addison Wesley ed., 3rd edn., 2000).

³⁶ DE CARVALHO, *supra* note 32, at 4.

³⁷ *Id.* at 21.

³⁸ Anselm Kamperman Sanders, *Unfair Competition law- Some Economic Considerations in PERSPECTIVES ON INTELLECTUAL PROPERTY* 131,138 (Adrian Sterling ed., 1997).

choice and facilitates the creation of new markets."³⁹ A practical example of this may be found in the pharmaceutical sector in India. It is argued that little research activity is conducted for looking into cures for diseases such as malaria, sleeping sickness, leishmaniasis and tuberculosis (in most cases the treatment techniques used are over thirty years old) which kill millions in Africa, Asia and South America due to the lack of patent protection whereby any incentive towards investment in this regard has been removed.⁴⁰

On the contrary, a large part of the research capital is invested in curing diseases which affect the people living in the developed nations with greater protection for intellectual property. For instance, US \$ 27 billion per year are invested by the pharmaceutical industry in research for things such as longevity of life, increasing hair growth and relieving impotence⁴¹, all problems that affect largely the residents of the developed nations having substantial protection for intellectual property.

Another additional benefit of this form of an incentive regime is with respect to the disclosure and marketing strategies. This may be explained in the following manner, "*it is helpful to conceive of a patent as a contract between the holder and the government on behalf of the citizenry. The holder receives an exclusive right over his or her invention for payment of fees and- which is much more important- for disclosing the invention for others to learn from. Without a patent, the inventor would have no incentive to disclose it.*"⁴² Without any intellectual property protection, there is not only no incentive for the inventor to disclose his invention to others, but further there is a disincentive. The inventor would attempt to keep the invention to himself and disclose only the absolutely essential minimum of the technicalities involved so as to ensure that the innovation remains within his sole control as far as is possible. Contrary to this, where there is a strong intellectual property regime, the patent holder or the beneficiary of some other form of protection would not attempt keeping the details of his innovations under cover but will disclose it, thereby enhancing the general societal knowledge on the subject. This is particularly important for the further development of the capacities in that field and also to prevent a process that has been described as 'reinventing the wheel'.

In connection with this, it should be noted that not only does the grant of intellectual property rights prevent 'reinvention of the wheel', but also it provides an incentive for wider marketing of the product so as to maximize the benefits.

³⁹ *Id.*

⁴⁰ See Pradeep Agrawal and P. Saibaba, *TRIPS and India's Pharmaceuticals Industry*, ECONOMIC AND POLITICAL WEEKLY 3787 at 3789 (September 29, 2001); Veena Mishra, *TRIPS, Product Patents and Pharmaceuticals*, ECONOMIC AND POLITICAL WEEKLY 4464 (December 1, 2001).

⁴¹ Murasoli Maran, *Intellectual Property: Policy and Strategy for 21st Century*, 6 J. INTELLECTUAL PROP. RIGHTS 211, 214 (2001).

⁴² DUTFIELD, *supra* note 6, at 28

These higher efforts towards marketing ensure “the widest possible availability of new and useful goods, services and technical information that derive from inventive activity.”⁴³ This is most beneficial to the consumers and the society as it makes a greater range of products available to choose from.

Further, the grant of intellectual property rights provides an opportunity for directing the developmental growth of a country in the desired direction, through appropriate use of the incentives policy. The basic theme is that where research is not focused in the desired direction, it may be possible for the government or the courts to redefine or interpret the structure of intellectual property law in such a manner as to redirect the intellectual efforts in the required areas. This may be better understood through an illustration of the British case of *Interlego vs. Tyco Industries*⁴⁴. Here, the Privy Council was to decide upon whether there was copyright in drawings for certain children’s building blocks. After the expiry of patent rights in the blocks in 1975, the producing company sought to continue its monopoly by employing copyright protection for the drawings after making some modifications. The basic question that arose before the court was whether the modified drawings constituted an original artistic work. Though the court recognized that a considerable amount of labour and expertise had gone into the drawings, and also that they were technically significant, intellectual protection was refused. The decision here has been seen as an instance where the court looking into the fact situation saw that the expertise here was being expended in a manner that was not desirable to the society, and therefore interpreted the provisions of intellectual property law in a such a manner as to redirect the resources towards the development of new products rather than merely modifying the available ones.⁴⁵ Similarly, in the recent *Novartis v. Union of India*⁴⁶, the Madras High Court interpreted the relevant provisions of the Patent Act in a manner, which ensured that to obtain a patent the patent applicant has to show that the invention increases the known efficacy of a substance, hence ensuring that companies are unable to resort to evergreening strategies. A simpler method of the same process would be for the legislature to provide different periods of protection for different products such as medicines and children’s toys, or to be even more specific for medicines curing cancer and a cough syrup.⁴⁷ Thus, the intellectual property regime assists even the channelization of the research activity in the country.

⁴³ *Id.* at 27

⁴⁴ [1989] AC 217.

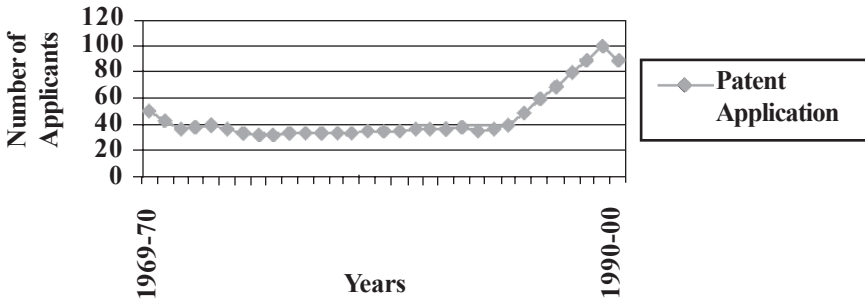
⁴⁵ LIONEL BENTLEY AND BRAD SHERMAN, INTELLECTUAL PROPERTY LAW 90-91 (2001).

⁴⁶ Writ petition no. 24759 of 2006. Decided on 06.08.2007. I think it has been reported in AIR already, just check for that citation, and if this has been taken from an online source, there is a need to cite it.

⁴⁷ This system of different years for pharmaceutical and agricultural products as compared with other products has been followed in the Patents Act of 1973 of India (*see* section 5).

As a proof of the incentive approach discussed above, it is highlighted that patent applications in India have increased since 1994-95 due to policy changes taking place.⁴⁸ The Figure Below denotes patent applications in India from 1970-2000⁴⁹

Patent Application in india from 1970-2000



From the table it is clear that patent applications declined starting 1970-71 to an average of 3,500 applications filed annually between 1985-1992. In the post 1995 period, however, number of patent applications filed are more than double those of previous years.⁵⁰

The reason for this is simple. Earlier, the India's Patent Act of 1970 prohibited granting of product patents in certain industries, however this has been revised. The increase in patent applications in this period shows the growing interest of firms in fields that were not patentable previously. Further, convention applications from abroad have also increased and are likely to increase further with India joining the Patent Corporation Treaty.⁵¹ (PCT) According to the Patent Office's annual report, from Dec 1998 to March 1999, out of 23,121 applications received by WIPO, the number of applications in which India was designated was 6,987.⁵² Furthermore, it clarifies the issue of decline in patent applications in 1998-1999 (from 10,155 to 8,954). The Patent Office reasons that the noticeable decline in applications was due to the prescribed time period provided by the PCT and not due to a declining in interest in patents. According to the annual report of the Patent Office "the reduction in the number of is most probably due to accession to PCT indicating that once the waiting period under the PCT expires, there would be rise in the patent applications in India." However, some may still argue that

⁴⁸ See generally Anitha Ramanna, *Policy Implication of India's Patent Reforms: Patent applications in post 1995 era*, ECONOMIC POLITICAL WEEKLY 2067-74 (2002).

⁴⁹ As compiled by CONTROLLER GENERAL OF PATENTS, DESIGNS AND TRADEMARKS, ANNUAL REPORTS (VARIOUS YEARS). [The graph is an approximate reproduction.]

⁵⁰ See Anitha Ramanna, *supra* note 48, at 2068-9.

⁵¹ See CONTROLLER GENERAL OF PATENTS, DESIGNS AND TRADEMARK, 27TH ANNUAL REPORT, 1998-99 available at www.tifac.org.in/do/pfc/pub/decbul.pdf.

⁵² *Id.*

there is a considerable disparity between the number of foreign patent applications and domestic patent applications. It is submitted that, even though the foreign patent applications are greater in number than Indian Patent applications, there is an observable rising trend⁵³ in domestic patent applications.

All these factors seem to indicate that not only is the existence of an intellectual property regime beneficial from the perspective of the individual innovator, but is also beneficial for society in general. Hence from the above, it can be safely concluded that incentive is essential to drive or fuel innovation.⁵⁴ However, since this incentive comes at a cost imposed by the monopoly regime,⁵⁵ it has to be ensured that the intellectual property regime made applicable should be such that it prevents excessive profits.

III. TRADE RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS- A PERSPECTIVE FROM THE DEVELOPING WORLD.

In this part, the attempt will be to look at the downside from the societal angle. This part will address specifically why a strong intellectual property regime is unsuitable in developing nations? This part shall contain both philosophical and economic arguments to establish the hypothesis.

A. PHILOSOPHICAL ARGUMENTS

Locke remains inapplicable

It is submitted that none of the philosophical arguments in part I can be relied upon wholly to justify the present form of protection of intellectual property. For instance, since Locke considers that it is only labour that distinguishes one individual from another, it is contended that for Locke, apart from the two conditions, all other things remain equal. Thus, he presumes equality of opportunity. Therefore, it is contended that his theory cannot be applied in the present context, especially in the developing countries, since a domestic

⁵³ "Indian companies filed 2,247 patent applications in the year 1998-99 as compared to 1997-98's 1,926 applications, representing about 17% increase in the number of applications." TIFAC 1 (1999) as cited in supra note 47 at note 38.

⁵⁴ See Z. Griliches, *Patent Statistics as Economic Indicators*, 28 J. ECON. LITERATURE 28 (1990) at 1661-1707 (arguing that showing that patent statistics are a good indicator of inputs into inventive activity is a useful accomplishment on its own merit. It allows us insight into what is going on in more areas and also much detail than is possible to glimpse from available R & D statistics.)

⁵⁵ The system of public rewards has not been discussed in detail in this paper since its implementation is not feasible due to high information costs that shall have to be borne in determining the exact utility or value which the society may attach to an invention

pharmaceutical firm of a developing country would be inherently incapable of carrying out research and development.⁵⁶ Also, the present patent system does not always ensure that labour is rewarded and patent races often result in wastage of resources.⁵⁷

Problem of Anti-Commons

In the absence of high transaction costs, individuals would trade their rights irrespective of the legal regime and avoid the tragedy of anti commons or commons from occurring.⁵⁸ Since, in the real world transaction costs are usually considerable, the manner in which rights are allocated by the laws becomes of extreme importance. If the regime is too stringent then it may prevent the entitlement from ending up with the party which values it the most. For instance, the present patent regime in India makes isomers and molecules also patentable.⁵⁹ Considering the fact that a pharmaceutical product is made up of numerous isomers and molecules, an innovator may have to negotiate with large number of patent holders, who may choose to indulge in strategic bargaining due to stringent norms of protection, for a license to use the protected isomer to produce a different drug. Similarly, pharmaceutical industries and other innovators often use stringent protection laws to extend the protection span of existing drugs without making substantial changes in their efficacy.⁶⁰ Thus, regime providing extremely stringent protection may actually prove to the detriment of the society as a whole.

B. ECONOMIC ARGUMENTS

Despite the benefits of strong intellectual property protection being lauded and promoted by the developed nations today, it is an established fact that till their recent advancements, they did not avail of these so-called 'benefits'.⁶¹ The change of attitude came about only "in the later half of the nineteenth century

⁵⁶ For statistical evidence please refer to Table below, See also Lawrence Liang, *Patents at the Cost of Patients* available at <http://www.altlawforum.org> (last visited Jul. 18, 2007).

⁵⁷ Consider if three companies are in a Patent Race, just because one of them wins the race, the other two will be denied an opportunity to derive the fruits of their labour.

⁵⁸ *Id.* at 698

⁵⁹ Section 2(1)(h), Patents (Amendment) Act, 2005

⁶⁰ C. Correa, *Internationalization of the Patent System and New Technologies*, Conference on the International Patent System, Geneva, Switzerland March 25 - 27, 2002 available at <http://www.wipo.int/patent/agenda/en/meetings/2002/presentations/correa.pdf> (last visited Jul. 23, 2007). While discussing the "evergreening" strategies of pharmaceutical companies the author states that the industry exploits incremental innovations through by protecting a number of improvements, even minor changes, on existing older drugs.

⁶¹ See DUTFIELD, *supra* note 6, at 19. See also Aarti Gupta, *Governing Trade in Genetically Modified Organisms- The Cartagena Protocol on Bio-safety*, 42 ENVIRONMENT 23, 24 (2000).

when US firms began to achieve significant technological breakthroughs.”⁶² A peak into the histories of other developed nations, now calling for strong intellectual protection in the developing nations reveals a similar picture.⁶³

The basic objection to strong intellectual property rights in the early stages of development arises due to the state conferment of an artificial monopoly.⁶⁴ This creation of an artificial monopoly raises two forms of issues that are primary in determining economic entitlement- those of distributional entitlement and of economic efficiency.⁶⁵

The creation of a monopoly is known to be of great consequence where few substitute goods are available, as in such a circumstance; the monopoly holder has near complete control over the price of the product.⁶⁶ This condition as to the non-availability of substitute goods most often holds true for the products of intellectual property.⁶⁷ In fact it is seen that in the case of essential sectors where few or even no substitutes are available, multinational corporations hold large monopolies.⁶⁸ Therefore, the grant of a monopoly status raises the likelihood of price determination by large multinationals whose major interest is the maximization of profits. Patent monopolies are granted for abnormally long periods of time resulting in poor resource allocation and consequent loss to consumers and society. Hence, anti-patent lobby argues, in context of developing countries,

⁶² DUTFIELD, *supra* note 6, at 65.

⁶³ For western European countries such as France, Belgium and Italy the patent system was of a very weak nature till the 1960s. With regard to protection over pharmaceutical products, most developed countries began permitting the same only in 1970s.

⁶⁴ See Lord Camden’s decision in *Donaldson vs. Becket* (1774) 17 Parliament History col. 993-1000 as quoted in BENTLEY & SHERMAN, *supra* note 6, at 39.

⁶⁵ Guido Calabresi and Douglas A. Malamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1090 (1972).

⁶⁶ See JOHN P. GOULD AND EDWARD P. LAZEAR, FERGUSON & GOULD’S MICROECONOMIC THEORY 94 & 292 (2001).

⁶⁷ This arises from the basic nature of intellectual property. See generally Stanley M. Nesen and Leo J. Raskind, *An Introduction to the Law and Economics of Intellectual Property*, 5:1 JOURNAL OF ECONOMIC PERSPECTIVES 3, 7 (Winter 1991) wherein it is stated, “[t]he practical effects of the novelty and non-obviousness requirements are that the inventor must convince the examiners...that the claims in the application make a new contribution to knowledge and are more than a mere variation of something already known or foreseeable as an extension of existing knowledge.”

⁶⁸ See Submission by Africa Group, Barbados, Bolivia, Brazil, Dominican Republic, Ecuador, Honduras, India, Indonesia, Jamaica, Pakistan, Paraguay, Philippines, Peru, Sri Lanka, Thailand and Venezuela on ‘TRIPs and Public Health’ at the TRIPs Council, at 5.

that a strong intellectual property rights regime, especially patent regime, will have a detrimental impact upon the developing world.⁶⁹ Further, the present monopoly based regime of intellectual property forwarded through TRIPs facilitates and protects this trend.⁷⁰ An instance of this was recently seen in the case of pharmaceutical products. Cipla, an Indian pharmaceutical company offered a combination of three copied anti-retroviral drugs to Medicines sans Frontiers for a price of \$ 300 per patient per year for distribution in highly affected areas such as South Africa and Nepal. Subsequent to this Merck, Glaxo SmithKline and Bristol Myers Squibb cut their prices for the Ivory Coast by 80-90%, though still not matching Cipla's offer.⁷¹ It shows that even charging 80-90 per cent lower for the drugs, the market remains sufficiently beneficial for these companies, and thus points out the extent to which companies may over-charge in an artificial intellectual property monopoly. The distributive consequences are disastrous. This distributive inequality was established by a World Bank study comparing the levels of health inequality through the following equations,

$$C(v) = (1-v/n.i)^n y (1-R),$$

where C is the Concentration Index; (y/n.i) is the share of health enjoyed by person; i is the mean level of ill health; R is fractional rank in living standards of the person; v(1-R) is the weight attached to the person's health.⁷²

Through this the subsidiary equation $I(v) = i (1-C(v))$ was arrived at, where I is the health indicator and measures the ill health. Thus, if ill-health declines monotonically with income, the greater the degree of inequality aversion, the greater the wedge between the mean and the value of the index I(v).

The study indicated that the level of health inequality is substantially higher in countries like Brazil⁷³ which have for long had a strong patent system, as

⁶⁹ Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 Science 698 (1998). According to a recent study conducted by the World Health Organization, around 1/3 of the worlds population lacks access to essential medicines. See also *Implications of TRIPs for Developing Countries*, available at <http://www.southcentre.org/publications/trips/tripsmaintexttrans-04.htm#TopOfPage> (last visited, 14th August, 2007). See B. Chirac, P; Pécoul, et al., *Access to essential medicines in poor countries: a lost battle?*, 281 J. AM. MED. ASSOC. 362 (1999).

⁷⁰ The antibiotic *azithromycin* (*Zithromax*) which treats pneumonia, a disease which kills over 2 million children in the developing world, costs the same in Kenya and Norway. Even though Norway's per capita spending (\$2300) on health care is 135 times greater than that of Kenya (17\$). Oxfam, *Priced out of Reach: How WTO patent policies will reduce access to medicines in the developing world*, available at <http://www.oxfam.org.uk/policy/papers/priced/priced.html> (last visited Aug. 14, 2007).

⁷¹ See generally *Drug Patents and Public Health*, 36 ECONOMIC AND POLITICAL WEEKLY (2001).

⁷² Adam Wagstaff, *Inequality Aversion, Health Inequalities, and Health Achievement*, Development Research Group and Human Development Network, World Bank and School of Social Sciences, University of Sussex, January 2002 (unpublished work on file with the author; also available upon email to awagstaff@worldbank.org).

⁷³ See Brazilian Patent Law No. 9279.

opposed to others such as Chad and Mozambique⁷⁴ which are yet to introduce a strong patent based regime.

Even ignoring the issue of distributional consequences, the economically efficient situation is not reached through a strong intellectual property regime as proposed in TRIPS. In fact, a strong intellectual property regime is optimal only for large corporations and raises tremendous likelihood of the closing down of the domestic industry due to the heavy competition requiring huge costs towards research and development, which the smaller domestic firms cannot afford to pay. This is complemented by Stigler's thesis⁷⁵ (pertaining to the regulator-regulated game), that winners⁷⁶ in case of a strong intellectual property regime would be firms, politician and regulators whereas losers would be the consumer and small scale industries.⁷⁷ He reasoned that even though the outcomes satisfying the interests of larger industries will impose greater costs on society than will satisfying those of smaller industries, and persuasion will therefore be relatively expensive⁷⁸, the former industries will still be the more influential because of their greater resources. It is submitted that on application of this thesis to the context of a small domestic industry in a strong intellectual property regime, it is evident that there would be substantial attempts by the multinational-regulator-politician nexus, towards shutting them down. A likely form of this is the filing of illegitimate infringement suits against smaller firms, and taking action on the basis of the same.⁷⁹ The consequences of the shutting down of domestic firms due to such practices would be substantial, with tremendous loss of revenue and employment.⁸⁰

⁷⁴ For Chad and Mozambique still not having introduced a strong patent based regime in the pharmaceutical sector even till date. See Farhana Yamin, *IPRs, Biotechnology and Food Security*, Part of the Project on Globalisation and International Governance of Modern Biotechnology (unpublished work, on file with the author).

⁷⁵ See George Stigler (1971) as cited in DUTFIELD, *supra* note 6, at 28.

⁷⁶ For a practical example in this regard see SUSAN K. SELL, *PRIVATE POWER, PUBLIC LAW- THE GLOBALISATION OF INTELLECTUAL PROPERTY RIGHTS* 125 (2003), wherein it is stated, "in 1998 PHRMA paid the Gorlin Group (a lobbying group) \$ 20,000; the IPC paid \$ 160,000. In 1997 Bristol-Myers paid \$ 60,000, Pfizer paid \$100,000, and the IPC paid \$ 140,000."

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ See PRABUDDHA GANGULI, *INTELLECTUAL PROPERTY RIGHTS- UNLEASHING THE KNOWLEDGE ECONOMY* 327-377 (2001). See also Sanjeev Chandran, Archana Roy & Lokesh Jain, *Implications of New Patent Regime on Indian Pharmaceuticals: Challenges and Opportunities*, 10 J. INTELLECTUAL PROP. RIGHTS 275, 275 (Bristol Meyer filed several unfounded patent infringement suits to prevent competition for their newest cancer drugs. Through his process they protected more than \$2 Billion in sales annually. *Id.*)

⁸⁰ See, *eg.*, Arman Kirim, *Reconsidering patents and economic development: a case study of the Turkish pharmaceutical industry*, WORLD DEVELOPMENT, No. 13 (February 1985) (By 1981, Turkey had witnessed closure of 157 generic pharmaceutical companies out of the 173 that existed in 1976 resulting in tremendous loss of employment. *Id.*)

A monopoly of large firms coupled with strong intellectual property rights may even lead to a suppression of new technology where an immediate introduction of the same is not entirely in their interests. The basic argument here draws on the ‘*innovator’s dilemma*’ defined by Clayton Christensen, a Harvard economist.⁸¹ The problem arises due to the existence or possibility of existence of disruptive technology, which is unprofitable to invest in. In Christensen’s analysis, the mainstream investors tend to ignore such technology. However, the technology may be improved and developed further by others, thereby converting the market leader to the market follower. An example of this is the computer disk drive industry. Here, while the market leaders focused on the improvement of the sustaining technology in large disk drives, a disruptive technology in the form of the micro disk drive was introduced. These micro-disks replaced the larger disk drives, thereby making the producers of the larger disk drives bankrupt.⁸² However, usually disruptive technology is either concealed by large firms or the smaller firm, which has developed the technology, is acquired to bring about the same effect.⁸³

This analysis may be countered on the ground that the laws relating to anti-trust and compulsory licensing will not permit the same.⁸⁴ Such a contention, however is not feasible in various sectors given the manner in which market is structured and the nature of the patent system. “[T]he 10 largest corporations in the main life science sectors now dominate global markets to a very high level. They control 32 per cent of the \$ 23 billion seed industry; 35 per cent of the \$ 297 billion pharmaceutical industry; 60 per cent \$ 17 billion veterinary medicine industry; and 85 per cent of the \$ 31 billion pesticides industry.”⁸⁵ This points out the near complete control of a few corporations in most of the important technology based sectors where there is the greatest possibility of the introduction of a disruptive technology. Since all the corporations here are equally likely to suffer from a disruptive technology and use suppressive methods, it is likely that they may bargain to arrive at a settlement between themselves. The nature of such a settlement would be that the corporations would not exercise their exclusive

⁸¹ See CLAYTON M. CHRISTENSEN, *THE INNOVATOR’S DILEMMA: WHEN NEW TECHNOLOGIES CAUSE GREAT FIRMS TO FAIL* x-xviii (1997).

⁸² *Id.* at 1-25.

⁸³ “In the 1990s when Johnson & Johnson acquired LifeScan, Cordis, Vistakon, and Ethicon Endo-Surgery. Each of those small companies had introduced a disruptive product (portable blood glucose meters, stents, disposable contact lenses, and minimally invasive surgical equipment, respectively).” Scott D. Anthony *Making Sense of Merger Mania*, INNOVATORS INSIGHT 2 (2005), available at www.innosight.com/documents/insight28.pdf.

⁸⁴ See Joel M. Cohen & Arthur J. Burke, *An Overview of the Antitrust Analysis of Suppression of Technology*, 66 ANTITRUST L.J. 421 (1998).

⁸⁵ DUTFIELD, *supra* note 6, at 18.

right to move the court for anti-trust or accept the compulsory license sought to be issued.⁸⁶ Further, the general practice followed in a patent system is to obtain a patent when the product is invented or created, rather than waiting for the actual utility to be discovered.⁸⁷ Thus, if the corporation buys the technology before its utility is widely publicized, or where the suppression is by the original inventing corporation, it is unlikely that a suit for anti-trust would be made out or a compulsory license granted.⁸⁸ Further, the risk of a compulsory license would not be a sufficient disincentive against such a practice especially since Article 31 of the TRIPS Agreement provides for compensation to the patent holder when such a compulsory license is given out.

In addition to these disadvantages of the introduction of a strong intellectual property protection, some of the supposed benefits do not come about in the developing nations. The main factor towards this is the low capacity to pay of the people of developing nations. For instance, it is hoped that the introduction of a strong intellectual property system would channelize a greater degree of the resources expended in research work towards the needs of the developing nations. However, the major investors being aware that the cost recovery is difficult for investments in these areas since an overtly high price cannot be charged, they refrain from investing.⁸⁹ This is well recognised with respect to the pharmaceutical sector in India. Biswajit Dhar⁹⁰, states in this regard, “[d]rug companies are not interested in volume, but in higher revenues from the sales and therefore, sell their drugs at a high price.”⁹¹ This points out that only where the extraction of a high price for an innovation is possible will the private and multinational drug companies engage in research and development. In other words, companies choose to invest in development of drugs, which have an inelastic demand.⁹² The mere

⁸⁶ Charles Allen Black, *The Cure for Deadly Patent Practices: Preventing Technology Suppression and Patent Shelving in the Life Sciences*, 14 ALB. L.J. SCI. & TECH. 397, 412 at 433-434. See also earlier submissions about Stigler's regulator-regulated game.

⁸⁷ *United States vs. E.I. Du Pont de Nemours & Co.* 118 F. Supp. 41 D at 141. See also ERNEST GELLHORN AND WILLIAM E. KOVACIC, *ANTITRUST LAW AND ECONOMICS IN A NUTSHELL* 387 (3rdedn., 1986) wherein it is stated, “up to 90% of all patents are unused because they have no commercial value,” in D.E. CARVALHO, *supra* note 32, at 8.

⁸⁸ Charles Allen Black, *supra* note 86, at 433-434.

⁸⁹ David W. Opderbeck, *Patents, Essential Medicines, and the Innovation Game*, DRAFT WORKING PAPER DECEMBER, 2003, (on file with author).

⁹⁰ Fellow at the Research and Information System for the Non-Aligned and other Developing Countries, New Delhi.

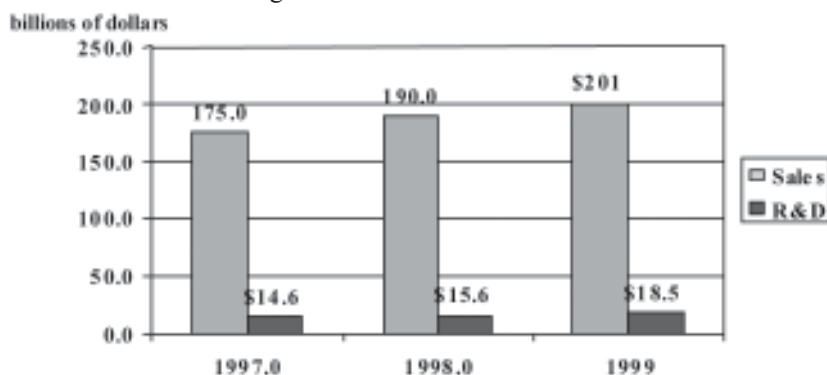
⁹¹ As quoted in Vibha Varshney, *Patents vs. Patients*, DOWN TO EARTH, July 31, 2001, at 20.

⁹² See Barry L. Beyerstien, *Ethical Issues and Pharmaceutical Company Practise* www.sfu.ca/~beyerste/research/articles/Tampa_Drug_Lecture.pdf (last visited Apr. 14, 2006) (Wherein the authors states that over the past 30 years, out of the 1300 new drugs approved by regulatory authorities in Europe and U.S.A, only 1% of these drugs treat tropical diseases. This is despite the fact that the pathogens causing such diseases are well understood and effective treatments can be easily developed)[hereinafter Beyerstien]

existence of a strong patent regime, providing the opportunity of catering to a large market, which cannot pay astronomical prices, will not suffice to bring in investment.⁹³

Intellectual property protection for research and development costs

Proponents of strong patent protection of pharmaceuticals, while justifying their claim, often argue that huge amount of resources are required to ensure development of a new drug.⁹⁴ Further, to substantiate their claims it is often claimed that various drugs would not have been invented.⁹⁵



Nonetheless, it is submitted that it is a misnomer that stringent protection laws are required to ensure that pharmaceutical companies have sufficient incentive to invest in research and development of newer drugs.

Source: James Love, *Toward a New Trade Framework for Essential Health Care R&D* available at <http://www.accessmed-msf.org/presentations/ndgpenang/jameslove.ppt>

⁹³ See Varshney, *supra* note 91 (The author points out that demand elasticity of a product plays a major role in determining the utility of patent rules). See also Beyerstien, *supra* note 92 (The author highlights that demand elasticity is the reason why Viagra receives 27 times more funds than the entire research budget for third world diseases).

⁹⁴ It takes around a decade to develop a new drug and research costs can be as high \$500 million J. Love J. & R. Nader, *Federally Funded Pharmaceutical Inventions*. Testimony before the Special Committee on the Aging of the United States Senate, February 24, 1993 available at <http://www.cptech.org/pharm/pryor.html> (Last Visited, 18th July, 2007). See also Tufts Center for the Study of Drug Development, *Tufts Center for the Study of Drug Development Pegs Cost of a New Prescription Medicine at \$802 Million*, November 30 2001. Available at <http://csdd.tufts.edu/NewsEvents/RecentNews.asp?newsid=6> (last visited, Jul. 12, 2007).

⁹⁵ According to Mansfield, 68% of the innovations in the year 1981-1983 would have occurred without a patent system. E. Mansfield, *Patents and Innovation: An Empirical Study*, 32 (February) *Management Science*, 1986. See also A. SILBERSTON, *THE ECONOMIC IMPORTANCE OF PATENTS* (1987) the author discusses the impact of patent system on the pharmaceutical sector in the United Kingdom and states that 64% of the R&D in the sector can be attributed to the nature of British patent system.

The above claim is further substantiated by a study suggesting that on a global basis, in 2002, only 7.5 % (approx) of the total income from pharmaceuticals is spent on R&D.⁹⁶

Total Number of Jobs (From 1995-2000)



Further, look at the recruiting profile of the pharmaceutical companies substantiates the point.

Source: R&D <<http://www.amsa.org/hp/RandD.cfm>>

A brief perusal of the major arguments against a strong patent regime having been made, the subsequent portion of the paper will seek to establish the same through the study of the patent applications in India's Pharmaceutical sector. Patent applications of top 30 firms in the domestic circuit in the pharmaceutical sector were calculated in the period of 1995-2000⁹⁷ and were found to be as follows⁹⁸ -

Number of Applications	Number of Firms
5 or less	16
6-10	4
11-20	6
21-40	4
50 or more	3

⁹⁶ PhRMA, *The value of medicines*. Available at <http://www.phrma.org/publications/publications/value2001/value2001.pdf>. (last visited Jun. 12, 2007).

⁹⁷ See Ramanna, *supra* note 47, at 2072. See also P. Agarwal & P. Saibaba, *TRIPS and India's Pharmaceutical Industry*, ECONOMIC POLITICAL WEEKLY 3787 (2001).

⁹⁸ Source: Firms selected from India Infoline (www.indiainfoline.com) list of domestic pharmaceutical companies and from *Economic Times*, 'ET 500 India's most valuable companies'. Patent applications calculated from TIFAC (1998, updated 2001) 'Database on Patent applications' Filed in India 1.1.95 to 31.12.2000 as cited in Ramanna, *supra* note 47. See generally H. Ashok Chandra Prasad & Shripad Bhat, *Strengthening India's Patent System: Implications for Pharmaceutical Sector*, ECONOMIC POLITICAL WEEKLY 1037 (1993)

It is evident from this table that a majority of firms have 5 or less patent applications and only 3 have large applications. Also, in the Pharmaceutical industry the capacity to translate the aptitude for reverse engineering into drug discovery can only be found in some firms. Hence, there is a wide disparity within the pharmaceutical industry also. These facts point out while some domestic firms have the capability to innovate and thus transform their potential into greater patent activity, the majority does not have the capacity for the same. Even firms like Dr.Reddy's Labs and Ranbaxy are finding it difficult to complete R&D projects and are often forced to sell incomplete research data to foreign firms for completion.⁹⁹

Therefore, economically it may be said that intellectual property regimes are beneficial to the whole society since they fuel innovation, however a regime that is too stringent can prove to be detrimental to a developing nation's economy. With this economic perspective, the next section will take the discussion to a more legalistic paradigm, seeking to address the anomaly of the status of individual rights vis a vis the societal needs in light of the Indian constitutional philosophy.

IV. THE INDIAN CONSTITUTION: INDIVIDUAL OR SOCIETY

The economic position on the issue of the introduction of an intellectual property regime along the lines envisaged in the TRIPs agreement as opposed to the practice that India has followed until recently, is found to be the case of a conflict between the needs of the individual innovator and the society. This may have particularly damaging effects in developing countries. In this section, it shall be analyzed if, under the Indian constitutional scheme, a hierarchy of rights may be arrived at so as to strike a balance between the two apparently conflicting interests. This section therefore seeks to achieve the purpose of the paper that is making a rational choice between the available options, through an analysis of the constitutional position on a conflict between individual rights and societal needs.

Under the Indian Constitution, the major and most important rights of the individual are listed in Part III termed as the Fundamental Rights, while the societal goals are provided for under Part IV, consisting of the Directive Principles of State Policy.¹⁰⁰ Both hold a primary position in the Constitution¹⁰¹ and are

⁹⁹ See N Balakrishnan., *Pharmaceuticals- A Growth Prescription*, BUSINESS LINE, Jun. 8, 2003.

¹⁰⁰Reference may be made to the opinion of Beg, J. in *Kesavananda Bharti v. State of Kerala*, (1973) 4 S.C.C. 225 at 902, wherein it is stated, "[i]n conferring fundamental rights, freedom of individual citizens, viewed as individuals, were sought to be protected, but, in giving specific directives to state organs, the needs of social welfare, to which individual freedoms may have to yield were put in the forefront."

¹⁰¹The use of the term 'fundamental' in Part III and 'fundamental in the governance of the country' in Part IV indicate the importance of the provisions. See also *Holmes vs. Jennison*, 10 L ED 579, approvingly quoted by Sikri, J. in *Kesavanand Bharti's case*, (1973) 4 S.C.C. 225.

recognised as part of the unamendable basic structure¹⁰². The accepted position is that so far as possible, any conflict between these two essential parts must be avoided and the attempt should be to achieve a harmonious construction between them.¹⁰³ Nevertheless, it has been recognised that, any piece of legislation which implements one of the Directive Principles of State Policy set forth in Part IV of the Constitution would, prima facie, be reasonable unless it could be further shown that there was arbitrary or excessive invasion of the fundamental right.¹⁰⁴ This makes it amply clear that in case of a conflict between the Fundamental Rights and the Directive Principles, the prima facie assumption at least would be that any restriction imposed on the Fundamental Rights in pursuance of the Directives is reasonable.¹⁰⁵

However, though the principles enunciated above indicate the Constitution's predilection for social benefit over individual rights, a clear position cannot be established herefrom since Parts III and IV represent only particular forms of individual rights and public interest. To understand the complete position of individual rights as against the public interest, a perusal must be made of a statement made in course of the Kesavanand's judgement, "The scheme of the Constitution generally discloses that the principles of social justice are placed above individual rights and whenever or wherever it is considered necessary *individual rights have been subordinated or cut down to give effect to the principles of social justice.*"(emphasis supplied)¹⁰⁶

¹⁰²Dalmiya Cement (Bharat) Ltd. v. Union of India, (1996) 10 S.C.C. 104 at 120.

¹⁰³C.B. Boarding and Lodging v. State of Mysore, A.I.R. 1970 S.C. 2042 (Where it was laid down that, "We see no conflict between the provisions contained in Part III and Part IV. They are complimentary and supplementary to each other.")

¹⁰⁴Sashibhushan Pati v. Mangala Biswas, AIR 1953 Ori 171. See also Budhu v. Municipal Board, Allahabad, A.I.R. 1952 All. 753 (Where the imposition of a ban on the slaughter on the killing of cows, calves, bulls and bullocks was held to be a reasonable restriction on Article 19 (1) (b)). See also Bijay Cotton Mills Ltd. v. State of Ajmer, (1955) 1 S.C.R. 752 (Where the Minimum Wages Act was upheld as a reasonable restriction to Article 19 (1) (g) in light of Article 43). See also Narendra Prasadji v. State of Gujarat, (1975) 1 S.C.C. 11 at 20.

¹⁰⁵This is also clear from the factual situation in *Kesavanand Bharati vs. State of Kerala* (1973) 4 S.C.C. 225 whereby the Constitution (Twenty-fifth) Amendment Act, 1971 which permitted a law to restrict certain fundamental rights so long as it was in pursuance of the Directive Principles, was upheld.

¹⁰⁶*Kesavanand*, supra note 88 at 590, para.1051, per Ray, J. Other judges too expressed similar opinions. See for eg. p. 379 for Matthews, J.; p. 1000 for Chandrachud, J.; p. 502 for Hegde and Mukherjee, JJ.

This explicit pronouncement of the largest bench of the highest court of the land establishes that under the Indian Constitution, it is always the individual interest that must yield to societal needs. Moreover, even though IPR protection should be granted, considering the interest of the public, the scope and length of protection should be different for dissimilar categories of IP so as to ensure that the innovator is unable to extract unreasonable profits under the garb of a legitimate exercise of his rights.¹⁰⁷ Thus, from a constitutional perspective, unreasonable pricing and anti competitive activities, can be viewed as an encroachment upon the rights of the society and future innovators. [see part II-philosophical arguments-Problem of Anti Commons, Evergreening] Hence, a there exists a need to remedy such a situation.

V. EPILOGUE

Competitive Market Theory suggests that price of a good should be determined after all relevant costs have been considered.¹⁰⁸ Any other price will result in either overpricing or underpricing of goods leading to either over-production or under-production/consumption of the product and economically inefficient outcomes.¹⁰⁹ Monopolistic regimes ensure over-pricing and consequent under-consumption of a good. Such over-pricing was observed in the case of sale of AIDS drugs in South Africa and Nepal. However, in case of intellectual property, the 'monopolistic regime' is a necessary cost which has to be imposed on the society. Nevertheless, it is equally true that the *real* purpose of protecting intellectual property should not be forgotten, that is, to ensure protection of innovation for the benefit of the innovator and consequently, welfare of the society.

Economic theory suggests that in order to find the optimal solution, the scope, duration and character of regime need to be taken into consideration. We, in this paper, have sought to highlight that there are other criterions also that need to be taken into consideration. Moreover, relying on the principles of the Indian constitution, in light of over pricing and anti competitive practices of innovators, we argue that such conduct should be viewed as an encroachment upon the rights of the society and future innovators. [see part II-philosophical and economic arguments]

Hence, it becomes clear that a homogenous patent regime granting all forms of innovations equal protection is undesirable. Further, to allay the fears forwarded by Posner and Landes and to prevent public health crisis, it is submitted

¹⁰⁷Further to substantiate our contention consider the example Pakistan, our neighbouring country where purchasing power is low, the drug prices are ten times that in India. The price of Ranitidine is 14.1 times higher, that of Famotidine 14.0 times higher, of Ciproflaxin 8.3 times and of Norfloxacin is 3.2 times, this brings the overall tally to 9.9 times higher. See Agarwal, *supra* note 40.

¹⁰⁸See MITCHELL.A.POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 88 (1989)

¹⁰⁹*Id.*

that perhaps the scope and duration of patent protection, in pharmaceutical innovations, should be reduced and developing countries like India must rekindle the debate regarding scope of IPR protection and push for a weaker regime, at least, for need-based products. This shall ensure the emergence of competitive markets over a period of time, which in turn shall guarantee reasonable profits for the innovator and would lead to a reconciliation of the interests of the innovator and the society.