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RESEARCH ARTICLE

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Intellectual property laws integrated with the national development policies in China

Abstract As a developing country, China has been pressured by the developed countries to increase the levels of intellectual property (IP) protection and to adopt IP rules that even go beyond the minimum international standards. IP regimes are established to promote advances in science and culture by rewarding creation and invention. However, developing countries do not necessarily appropriately share the benefits from the harmonization of IP protection standards over the world. Fortunately, not every developed country or international organization is concerned only with its own interest when evaluating the tendency of international IP protection policies. In fact, they have made many studies or findings in favor of the concerns and interests of developing countries. This paper investigates the conflicts between IP rights and human rights, as well as the validity of IP laws under constitutional arguments, with the purpose of providing new strategic policy arguments in China's future amendments to IP 1aws, and related negotiations with developed countries.

Keywords intellectual property, World Trade Organization, Trade-Related Agreements of Intellectual Property Rights, copyright, patent right

1 Preface

On account of the belief that a strict intellectual property (IP) regime can accelerate the development of science and technology, stimulate economic growth,

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and simultaneously eliminate poverty, developed countries and large-sized transnational enterprises spare no efforts to promote the internationalization of the protection of intellectual property. The World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO) are the leading international institutions involved in forwarding the improvement of international policies on intellectual property. In charge of negotiations and management of IP treaties, the WIPO carries the mission of advancing the internationalization of the protection of IP and prompting the unification of the laws on the protection of IP of nations. The WTO, on the other hand, with the dispute settlement mechanism, has a great influence on the performance of intellectual property policies. Being a member of the WTO, China must abide by the regulations of the *Trade-Related Agreements of Intellectual Property Rights* (TRIPS) and in compliance with the results of the Uruguay Round negotiations, the member countries of the WTO shall also observe at the same time international conventions relating to industrial property rights, copyrights and neighboring rights of copyrights such as the *Paris Convention*, *Berne Convention* and *Rome Convention*.[1] In addition, many countries have also reached bilateral or multilateral agreements on intellectual properties.

Nevertheless, in the wave of the internationalization of the protection of IP, there are still some organizations of developed countries that hold different views, such as the Commission on Intellectual Property Rights (hereinafter referred to as the Commission) initiated by Clare Short, the British Minister of International Development, chaired by Professor John H Barton and composed of international scholars and government officials. In order to appraise the influence of the legal system of IP on developing countries and the third world, the Commission issued a report entitled "*Integrating Intellectual Property Rights and Development Policy*", which is oriented in the priority of the value of human rights and in sharing the results of civilization after visits to China, India, Brazil, and Africa and meetings with the official and nonofficial organizations in London, Geneva, Brussels, and the US government.[2]

In a recent special interview by the author, Professor John H Barton, chairman of the Commission,[3] stated the indispensable compromises of developing countries in international negotiations of IP. According to the report and the suggestions from Professor John H Barton, the author would like to discuss the dialectical relation of the basis of the rights of IP in legal terms, the hierarchical legal choice when the basis of IP rights conflicts with the basic rights, and how the

[1] The provisions of Article 2, Article 9 and Article 14 of the TRIPS Agreement. See the materials relating to the TRIPS Agreement on the WTO site: http//www.wto.org/english/tratop-/trips-e/trips-e.htm=WhatAre

[2] See http://www.iprcommission.org/graphic/documents/final–report.htm

[3] Prof. John H Barton is the doctoral supervisor of Li Xiaoping; Li Xiaoping revised the translated version (in Chinese) of the report on Integrating Intellectual Property Right and Development Policy.

basis of IP rights become the foundation in consideration of the future formulation of IP laws and national development policy in China.

2 Prospects and limits of the protection of IP

2.1 Relationship between the protection of IP and the development of the country

The history of the development of the legal system of IP has shown that in early years European countries implemented relative discriminatory regulations against foreigners, and in the nineteenth century the United States had not fully observed the legal system of IP established by the continental countries (Barton et al., 2002). Similarly, the countries or regions, which are still in the developing phase today, such as China (Taiwan included) and South Korea, have not strictly fulfilled the measures for the protection of IP. It is only because of great pressure from developed countries led by the United States that the developing countries, under the present framework of international IP policies, have to obey the standardized rules mainly formulated for developed countries, and are unable to enjoy the flexible choice European and American countries used to have many years ago. Bestowing certain exclusive rights over results on inventors for the purpose of encouraging invention and innovation, IP laws ultimately aimed at the advancement of science and civilization. However, while the protection of exclusive rights is bestowed on inventors, the full utilization of the inventions by others is restricted. There is no sufficient evidence to show that the IP system has promoted the development and innovations in developing countries, since most of developing countries have to import technology. On the contrary, because of the existence of the IP laws of identical protection standards, the access to and use of science and technology by developing countries have been greatly restricted. As a result, the costs paid by them for the protection of IP are much higher than the benefits acquired from the IP, which is especially obvious for the backward countries (Barton et al., 2002).

According to the experiences of industrial and economic development for decades described by the “Commission”, Japan, South Korean and Taiwan (China) have achieved considerable advance in science and technology and in economic development though the protection systems of IP are relatively loose. Thus it can been seen that the IP system is not the sole means to promote innovation and progress as stated by the developed countries in Europe and America (Barton et al., 2002). In fact, the industrial innovation and economic progress of a region depend on its capability in science and technology. Only with a certain capability in science and technology for constructing a platform suitable for commercial operations, can foreign technology and resources be effectively

absorbed and perfectly employed. The capability in science and technology in turn depends on the complementary measures including educational environment, resources, funds, and situations of the rule of law, and the availability of those development elements are closely related to whether the results of intellectual properties are utilized or not. Therefore, the Commission believes that if the developing countries are hastily required to implement strict IP systems when not those conditions, are not fully available, then the only outcome is that developed countries will benefit, which is not beneficial to the progress of developing countries (Barton et al., 2002). Although the IP system has provided the development of intellectual economy with institutional protection (which has to some extent accelerated the development of intellectual economy) (Luo, 2001), its ultimate aim is to facilitate the progress of the society as a whole rather than maximize the satisfaction of the rights of individuals, which is embodied in the treaties on IP, including the agreements of WTO and TRIPS (Zheng, 2001).

2.2 Research on the protection of IP and the justification of its business interests[4]

2.2.1 Demarcations of the protection of patent rights

The legislation of the legal system of IP aims at the encouragement of invention and creation, thus promoting the advance of science and culture by means of bestowing certain exclusive rights on inventors as motivation for invention. Take patents as example—according to Article 27.1 in TRIPS, the exclusive rights of patents may be granted to any inventions, whether products or processes, in all fields of technology, provided they are of industrial application, new and advanced. Article 28.1 in TRIPS prescribes that the patent owner of the invention of articles enjoys the rights for preventing a third person from making, using, offering for sale, selling, or importing the products in question for such purposes without the consent of the owner, and that the patent owner of methods enjoys the rights for preventing a third person from using such methods, or importing the products directly obtained by the methods in question for using and for sale, and selling without the approval of the owner. Hence, the protection of manufacturing methods is extended to the products obtained directly from the methods, which reinforces the protection of the rights of the owner of special technology.

Induced by the business interests brought by exclusive rights, IP law ultimately aims at the advance of science and civilization, which is evidently embodied in the industries of medical treatment, biochemistry, movies, and music. According to statistics, the proportion of intangible assets including IP in the total value of

[4] Wang Shuowen: *Patent Strategy of Auto Industry*, http://www.apipa.org.tw/Article/Article-ViewADA.Asp?IntADAArticlelD=146&strSortTarget=adaCreateDate; http://economicexplanation.Tripod.com/Economic-explanation2.html>

all the listed companies in the United States is nearly three-fourths, which is approximately twice the proportion of intangible assets 20 years ago. In addition, the total income of technological authorization in the United States every year reaches USD 45 billion and that in the whole world up to USD 100 billion, which are still growing rapidly (Wang Kuan Hsi, Lee Shiau Ping, 2005). Hence, it can be seen that apart from promotion of economic growth, the protection of IP also involves gigantic business interests and those who have obtained vested interest are the most powerful advocators for the protection of IP.

Though business interests are the internal inducement of IP law and the "necessary mala in se" in achieving the ultimate goals of IP law, unreasonable intellectual costs and business interest are continually denounced. Take auto industry for example: it can be roughly divided into four forms: design and R&D, production, sale, and repair services. The products of auto industry can be classified as genuine parts and aftermarket parts. The so-called genuine parts refer to the spare parts with strict standards on quality, sold to the original auto factories and mainly used in assembling new autos, while the so-called aftermarket parts refer to the spare parts sold to garages and their upstream suppliers. Generally speaking, the quality of aftermarket parts is slightly inferior to that of genuine parts. With respect to the factories that produce the aftermarket parts, most of the exterior or the inner sheet metals first adopt the reverse engineering in obtaining data necessary in processing, then such data is used in manufacturing the moulds needed for production of the relevant parts. This process is quite common in the auto industry. Nonetheless, suppose the sheet metal is applied for a new-style patent protection by the original manufacturer, the above-mentioned factories that produce the aftermarket parts will have to obtain the rights for manufacturing such products by patent authorization. Consequently, the competitive advantage of lower price of such factories that produce the aftermarket part will vanish. The patents of autos are closely connected with the lifeline of the enterprise, because the effective time for patent protection enjoyed by the enterprise may limit the manufacture of the relevant parts by other auto factories, which will have an impact on the whole auto industry. Therefore, all the large-scale auto enterprises have given this matter a great thought, in the hope that they can control the upper, middle, and lower streams of the whole auto industry so as to gain substantial business interest. However, such business measures with highly sophisticated legal techniques are evidently suspected of abusing the protection of IP and indirectly cause damages to the rights and interests of general public consumers.

In medical treatment and healthcare, the striking aspect is the prevention and treatment of human immunodeficiency virus (HIV) (Wang Kuan Hsi, Lee Shiau Ping, 2002). Because of insufficiency of qualified persons, funds and medical treatment systems in backward countries, the effects on the prevention and cure of HIV are extremely unsatisfactory with the number of infected and sick persons tending to increase rapidly. Because the patents of such drugs mostly belong to

large-scale pharmaceutical factories in Europe and America, other pharmaceutical factories cannot produce and sell drugs of the same quality (popularly called "generic drugs") due to limits imposed by the patent law, and subsequently the prices of the drugs produced by European and American pharmaceutical factories are too high to be afforded by the patients in backward countries. Thus, though developed countries are dedicated to the R&D of the medicines that controls HIV, hundreds of thousands of AIDS patients die in developing countries. In fact, the high prices of the drugs are key barriers preventing patients from having access to good treatment, and the source of the barrier is the unbalanced protection of IP. Take patented triple cocktail as an example. Every patient treated with the therapy need to spend about USD 10,000 every year on AIDS, and USD 3,000 every year on fluconazole, the patented drug used to treat pathologic change of meninges caused by AIDS (Lin, 2004). According to the estimation of the WHO, the majority of the drugs are sold at the price 20–100 times their marginal costs. In addition, as indicated by the data from the United Nations, 150 milligram fluconazole is sold in India at USD 55 without the protection of patents, while the same dosage is sold at USD 697 and USD 817, respectively in Malaysia and Philippines where such drug is protected by patents.

Because strict protection system on IP has not yet been established in India, the pharmaceutical factories there are accustomed to manufacturing the drug of the same quality at lower prices, and then obtain benefits by selling them to other developing countries.[5] Because such measures are helpful in lowering the prices of anti-HIV drugs and other patented products, the poor in the developing countries benefit greatly (Wang Kuan Hsi, Lee Shiau Ping, 2001). However, according to the regulations in Article 66.1 in TRIPS Agreement, India has to adopt the protection system on IP before 2006 at the latest, when the prices of most drugs will certainly go up drastically. With the issue being highly controversial, the countries in Europe and America firmly claim that patents do not admit of any infringement because no innovative invention is possible without the protection of patents, while on the other side, the orientation of the interests is an important issue of human rights, vital to the life of human being (Lin, 2004).

Although the effect of monopoly may be appropriately weakened by elastically applying the principles of "compulsory licensing" and "exhaustion of rights" that are inherent in the law of IP rights, both the principles are full of limitations and controversies. For the purpose of preventing the owners of IP rights from controlling the whole sale system, the principle of "exhaustion of rights" provides that the owner shall lose the right of control over the marketing and sale of its products after having put them into circulation for the first time, and a third party may

[5] Biswajit Choudhury, Patent Raw TRIPS Up Indian Drug Company, Gemini News Service, February 2001, at http://www.panos.org.uk/aids/geminineWstories/PuzzlingOverPatents.htm.

obtain the said products by such means as parallel imports of genuine goods. However, member nations of the WTO have not yet reached a common understanding as to whether to apply the principle of "national exhaustion" or the principle of "international exhaustion". As a result, according to the provisions of Article 6 of the TRIPS Agreement, issues concerning exhaustion of IP rights shall not be handled by resorting to the dispute settlement proceedings. In other words, although the exhaustion of IP rights is recognized as "an issue under dispute" in the TRIPS, the relevant adjustment norms are totally at the discretion of its member nations, because its member nations cannot reach a common understanding on the method of settlement. Developed countries prefer to apply the principle of territorial exhaustion or national exhaustion of IP rights in their domestic legal system, while developing countries prefer a more free principle—the principle of international exhaustion of IP rights. The application of "the principle of exhaustion" is crucial for the protection of international IP rights and for the free circulation of commodities between countries. Considering from the angle of trade liberalization, if the principle of international exhaustion of IP rights is adopted, the patentee will not only lose the right of resale within the country but also the right of export. In such circumstances, the "accessibility" of products will improve to a large extent, if the third party imports the products from foreign countries (Lin, 2004).

The so-called compulsory licensing means that in certain conditions, the government may compel the owners of IP rights to grant rights to others. For instance, when a public sanitary crisis happens, the government may demand a patentee to permit other pharmaceutical factories to manufacture the same kind of drug or medicine, and the latter shall pay a sum of royalties to the former. In such case, countries with lower revenues may purchase drugs or medicines at a relatively lower price (Barton, 2002). The United States has not supported the system of "compulsory licensing", but however, after the terrorist attack in 2001, together with suffering from anthracnose later, it is now beginning to be aware of the seriousness of this issue. Since the supply of drugs that being used to cure anthracnose are in short supply, and the patent rights of such drugs are under the possession of Bayer, a pharmaceutical factory in Germany, the strict abidance by the patent right is not favorable for the settlement of such an urgent issue, and hence the United States began to consider the necessity of an adjustment in its patent system. The relevant issue was also put forth for discussion at the conference at the ministerial level held in Doha in November. During this conference, it was declared that the member nations should have the right to apply for compulsory licensing (Harmon, 2001; Weissman, 2002). However, due to serious oppositions from some giant European and American pharmaceutical factories, till now, no developing countries has officially applied for the privilege of "compulsory licensing".

However, as the threats from Bird Flu to the global health become more severe, and Tamiflu, the only medicine that can be used to cure Bird Flu at present, is sold at a high price and with insufficient stock, similar issue draws the public attention once again. Roche, a Swiss pharmaceutical factory that has the patent right of Tamiflu, conveys a reserved attitude toward the issue of licensing, and the relevant international organizations have not made any official statement on their positions as to whether their member nations may claim for the compulsory licensing or not.[6] According to the law of Brazil, as long as the government considers that a kind of relevant medicine is beneficial to the public health, pharmaceutical factories in Brazil may disregard the patent rights of western pharmaceutical companies and may produce the medicine by themselves. Recently, Issoufou Hamid, President of Cipla, an Indian pharmaceutical company, declared that his company had developed a substitute for Tamiflu and based on the spirit of humanism, the price of such medicine would be comparatively low. After seeking the licensing of patent rights from Roche and being refused, the health department in Taiwan (China) took the lead in declaring that pharmaceutical factories in Taiwan (China) would disregard the patent rights of Roche and may produce Tamiflu by themselves.[7] Because of high controversy, the development of this issue in future is testing the wisdom and glamour of the relevant international organizations.

2.2.2 Demarcation for the protection of copyrights

In order to improve the motives for creation, and thus promote the cultural development, the copyright laws confer exclusive rights on copyright owners, and enable to obtain a consideration for their works by means of use of "other property rights," enjoy the benefits on the property and to protect them from infringements by others. Nevertheless, the aim of copyright laws is not only to protect copyright owners, but also to promote the sustainable development of culture. As the progress of culture must always rest on the crystallization of wisdom of forearms, most copyright laws of different countries in the world provide that when a certain condition is met, the works of a copyright owner may be used without his consent. This is the principle of "reasonable use", or "fair use", "free use" (Huang, 1996) or "fair dealing" (Fitzgerald, 2001), the aim of which is to ensure the public's freedom in the use of information, and pursuit of a balance between individual interests and public benefits.

However, this balance mechanism meets a challenge in the digital era. After the WIPO adopted *The WIPO Copyright Treaty* and *The WIPO Performances and*

[6] Marwaan Macan—Markar, World Bank Gets Cold Feet on Bird Flu Drug Patent, Inter Press Service News Agency, November 4, 2005. http//www.ipsnews.net/news.asp?idnews=30885

[7] *Taiwan to Ignore Flu Drug Patent*, BBC News, October 22, 2005 http://news.bbc.co.uk/2/hi/asia-pacific/4366514.stm.

Phonograms Treaty at the end of 1996,[8] its member nations, one after another, and according to the requirements of the above-mentioned international treaties, set limitations on the acts of evading technical measures adopted by copyright owners to protect their works, and tampering with the identity of the administrative information on the copyrights of others.[9] Take as an example *the Digital Millennium Copyright Act* (referred to as the DMCA), an act signed and adopted by President Bill Clinton on October 28, 1998. In this Act, the provisions on the technical measures for protected works have exceeded the scope of traditional copyright laws, which give another layer of protection to the copyrights in addition to the exclusive rights granted by copyright laws. What is more, the practical interpretation of this Act has further reduced the space for the establishment of the "reasonable use" to a big extent, which deems that the defense of "reasonable use" is not applicable to the acts prohibited by the DMCA. In other words, some use deemed as "reasonable" by traditional copyright laws may constitute a violation of the provisions on prohibition of the DMCA (Li, 2002).

Although the phenomenon of piracy is actually very rampant in many developing countries, the Commission points out that the losses caused by pirated software are often overestimated by multinational enterprises, and the high prices of computer software make it difficult for ordinary people in developing countries to access and use them through legal means, which is the real and main reason for the rampant piracy (Barton, 2002). For example, the selling price of Microsoft Windows 98 in Chinese version is RMB 1,998 in China, while its selling price in the United States is US 109 (approximately RMB 1,000, calculated at the currently prevailing foreign exchange rate), although the GDP per capita of the United States is over 30 times that of China (Ni, 2003). As more and more pressure comes from movie and music industries, many countries are increasingly strengthening their protection of copyrights (Norgaard, 2005). For instance, in 1984, in the case of Sony Corporation Of America vs. Universal City Studios, Inc.,[10] the Supreme Court of the United States declared that though a record and playback device may be used as an instrument to infringe upon copyrights, at the same time, it also has other functions that can be used for legal purposes, and therefore any reasonable use of it shall be protected by law. However, in June 2005, in a recent case of MGM vs. Grokster, the Supreme Court has changed its position and thought that since the software provided by Grokster, a website, may be used to download illegal music or movies, the website of Grokster may constitute an infringement upon copyrights. After the judgment of this case, some similar judgments were made one after another in such areas as South Korea, Taiwan

[8] WIPO Doc, CRNR/DC/94 (Dec. 23,1996): WIPO Doc.CRNR/DC/95 (Dec. 23,1996).
[9] Article 11 of the WCT; Article 18 of the WPPT.
[10] 464 U.S.417 (1984).

(China), and Australia (Bayot, 2005), which denied the legality of file-sharing software. These judgments are a great victory to copyright owners, but they further reduce the space of "reasonable use". In such case, the cost of teaching and studying, scientific research, and using libraries in developing countries will be bound to increase sharply, and the dissemination of knowledge will also be gravely affected.

3 Dialectical relationship between the effect of the laws on IP rights, and the safeguards of basic rights and the means of settlement

As developed countries insist that the same standard of law on IP rights shall be observed in the whole world, both the developed and developing countries are dissatisfied with the present state of this issue, and no obvious achievements have been made in this regard. In many developing countries, the society maintains a mild atmosphere toward the acts that infringe upon the IP rights of developed countries, which is also one of the important reasons for the existence of rampant infringement of IP rights. This situation may leave us frustrated and puzzled, but the reason for it may be clearly illustrated if it is analyzed by verifying the actual effectiveness of laws in jurisprudence, whereby the analysis of the basic rights under the Constitution may further explain the unreasonableness of the identical observance of the same standard of the law on IP rights.

When a law is formulated, its effectiveness is usually be analyzed from the following aspects:[11]

3.1 Analyzing its effectiveness from the angle of legal logics

3.1.1 Appropriateness: that is, the probability that the legal norms as a harmonious part of the legal system will not be in conflict with the superior norms.

3.1.1.1 The IP laws mainly provide for the issues on rights of intangible properties related to the development of science and technology, and so they rarely involve the laws of other fields; and still, human rights treaties do not have any provisions on the influence of IP rights on human rights. When the IP rights are in conflict with human rights, most member nations of the WTO are both party to the TRIPS and to human rights treaties. According to the principle of the international law on bona fide performance of the obligations under international treaties,

[11] Such analytical Framework, a method introduced at classroom, by Grand Judge Yang Riran of Taiwan Region when he gave lectures on jurisprudence.

no member nations of the WTO may refuse to perform its international obligations under the human rights treaties because of performing its obligations under a WTO agreement, and furthermore, the rules in the law of international human rights are a declaration of the general legal principles that have already been recognized by civilized countries for a long time, which is characteristic of compulsory international laws (Wan et al., 1998). A country shall give priority to undertaking human right obligations if a conflict arises between the exercise of its rights in accordance with the relevant agreements on IP rights, and its obligations of human rights (Wan and Feng, 2003).

Though it appears that IP rights conform to the subordinating norms of the legal system, in reality, it is not so. Though the subjects of the protection of IP rights are individuals, the aim of such protection is achieved mostly by resorting to the force of the state, and thus explanation thereof shall be made firstly by taking countries as the subjects of the interests. Bohm, a German scholar, believes that the paramount task of a country's economy is to maintain the competition, and he takes competition as the necessary condition for business freedom and protection of property rights. Prof. Kurt Biedenkopf (1965) develops this viewpoint to the ultimate, and he thinks that the degree of property rights shall be determined in line with a party's market position, and the more powerful its market position, the more restricted its property rights. But Prof. Wolfgang Fikentscher (1971) holds that the authorities responsible for controlling economic power and preventing the abuse of monopoly rights shall be completely independent and protected by the constitution. Subject to the influence of the theories of the last two scholars and the theories of other scholars, the value of market competition is limitlessly overestimated, and the law of competition is put on the halo of "economic constitution" (Biedenkopf, 1965). Nevertheless, the active effect and driving force of the competition law on the market economy is doubtless.

This theory has inspired us to believe that as developed countries have more powerful market shares, their property rights shall be imposed with more restrictions, and the restriction of economic power and the prevention of the abuse of monopoly rights shall be raised to the level of constitutional regulation. Then, based on deduction from the opposite viewpoint, when a developing country exploits the achievements of IP rights of a developed country, it shall be subject to the restriction of a lower standard, whereas when a developed country exploits the achievements of IP rights of a developing country, it shall be subject to the restriction of the standards identical to those of developed countries.

3.1.1.2 Fundamental rights or basic human rights may be chiefly referred to as basic rights (Wu, 2003), which, besides used to resist against the state rights, shall also include institutional safeguards, shared rights, and the basis of claims. Shared function is one of the functions derived from the nature of basic rights. Apart from

sharing various rights of freedom, shared rights are also beneficial to payment obligations, including material benefits (e.g. public welfare) and spiritual benefits (e.g. facilities for education and cultural training, etc.). However, it should be noted that, according to traditional theories, two conditions shall be satisfied for the application of basic rights: first, the act of application must be an act of the state; second, the act of application must be a superior act conducted by the state on the basis of the ruing relationship under the public law (Xu, 1993). However, in fact, the acts between individuals under private laws may also cause an infringement of basic rights, and hence the theory of "the Effect of Basic Rights on Third Parties" (Drittwirkung der Grundrechte), which has already been accepted by many European countries. Though there are not any explicit provisions on this theory in the European Convention on Human Rights, the practical development of this theory has affirmed the effect of basic rights on third parties, which mainly embodied as the "obligations of protection", or rather the indirect effect (Su, 2004). Both the general opinion of the theories in Germany and Wang Zejian, a Chinese scholar, adopt the theory of "Indirect Effect of Basic Rights", that is, though basic rights are an objective order of value with radioactive effects (Ausstrahlungswirkung), and no civil regulations may make any provisions contrary to it, the terms of basic rights may only be indirectly applied by entering in the civil legal relationships through the summary provisions of civil laws (Wu, 2003). On the contrary, Wu Geng (2003) and Xu Zongli (1993), two Chinese scholars, think that the recognition of the direct effect of basic rights will establish a more active and close relationship between the constitution and the safeguard of people's rights, and that even the acts of state treasury shall be subject to the restrictions of basic rights (Wu, 2003).

The basic rights should be construed by adopting the way of wirkungsgeschichtliches Bewusstsei (effective historical consciousness) (Wu, 2003), whereby the construction of the constitution is to search for its intention (Will der Verfassung), rather than the intentions of constitution makers (Will der Verfassungsgeber). Greater consideration should be given to people's consciousness of rights, the present situation of social development, and the universalistic trend of human rights when construing the basic rights. On such basis plus the conclusions of the preceding paragraph, we can conclude that whether the parties involved in the disputes arising from IP protection are states or private persons, the basic rights of human beings should not be infringed upon because of the provisions and norms on IP, which is also a constitutional principle that any law must comply with. Therefore, in case of formulating an IP regulations or reaching a multilateral international treaty, provided its content has damaged the basic rights, we can judged it null and void for its unconstitutionality without resorting to the level of explanation at the jurisprudential level. Furthermore, according to the preface of Charter of the United Nations and the system of international human rights laws

constructed by United Nations Commission on Human Rights, basic rights are not only subject to the protection of domestic law, but also subject to the protection of international law gradually (Fa and Dong, 2004). Basic rights could be infringed upon, not only by a home country but also by foreign countries, and the basic rights are internationalized as constitutional obligations of every country. Therefore, it is reasonable to defend the people's basic rights when violated by other countries.

3.1.2 Effectiveness: probability of Recognition of the appropriateness of a norm by the compete authority

In August 2000, the Sub-commission on the Promotion and Protection of Human Rights of UN ECOSOC (hereinafter referred to as the Sub-commission) proposed a solution to the conflict between the IP and human rights, indicating that the following actual or potential conflicts exist between the two kinds of rights: (1) impediments to the transfer of technology to developing countries; (2) impacts of the results of enjoying the rights by the planters of plant varieties and the patenting of genetically modified organisms on the basic rights enjoyed in foods; (3) "bio-piracy" and multinational companies' reduction of communities' (especially indigenous communities) control over their own genetic and natural resources and cultural values; and (4) restrictions on access to patented pharmaceuticals and the implications for the enjoyment of the right to health. This plan on solutions requests all the WTO members to abide by international conventions on human rights, fulfill their duty and give adequate protection to the traditional knowledge, cultural value, and heritage of indigenous communities.

The Sub-commission made a report on IP and human rights and the impact of TRIPS Agreement on human rights in August 2000, requesting the UN Senior Human Rights Officer to seek an observer status in the WTO for the ongoing review of the TRIPS Agreement. The Sub-commission indicated that because the enforcement of TRIPS agreement did not adequately reflect all the fundamental nature and indivisibility of human rights, including interest brought by advancement and application of science enjoyed by everyone, right of health, right of food, right of autonomy, etc, there exist apparent conflicts between the IP regime in TRIPS agreement and the International Human Rights law (Wan and Feng, 2003). As a result, it is difficult for the nations to formulate the laws and policies of IP that are in line with domestic economic development, human rights, and environmental protection. Disappointingly, the balance point between inventors' rights and public rights that the IP protection has always been seeking has leant obviously to the economic rights of inventors.

After the IP laws are formulated, it is extremely difficult for developed and developing countries to coordinate their interests, because of the great divergence

in interest orientation between them. Most of the developing countries have to accept the uniform criteria under the pressure of the actual situation (Shen and Qiao, 2002). In the seesaw war, both parties have consumed large amount of transaction cost and at least until recently, they are still insisting on asserting their own opinions, and criticizing each other. Therefore, there is not much probability that the norms be recognized by the competent authorities. Tracing back the history of IP legislation, during the Tokyo Round, the United States and European countries jointly drafted the Agreement on Measures to Discourage the Importation of Counterfeit Goods (Wei, 2005, 11) to regulate the interception of the counterfeit goods on borders, and the disposal of the goods out of commercial channels. This draft was the beginning of the introduction of the issue on intellectual properties to the WTO regime, and was supported by all the developed countries without exception. However, the developing countries represented by Brazil and India raised a strong objection to the dispute settlement functions of the General Agreement on Tariffs and Trade, insisting that disputes should be settled by the WIPO. As a matter of fact, the background of this divergence is that the developed countries suspected that the WIPO would be in favor of the interest of developing countries when such disputes occurred. In one word, the developed countries sought to protect IP adequately, but the developing countries worried about the difficulty they faced while accessing the frontier technologies due to the over-protection of intellectual properties, and believed that the significance of the need for development in developing countries was not inferior to the economic interests of the owners of intellectual properties (Wei, 2005, 11).

3.2 Analysis on the effectiveness from the sociological perspective

3.2.1 Positivity: probability of the enforcement of compulsory measures (sanctions) of a norm by the competent authority

The UN Committee on Economic, Social and Cultural Rights in 2000 clearly indicated on the issues of the rights of health, stating that a country should not adopt the measures that are obviously incompatible with the duties for international law it has assumed (Wan and Feng, 2003). Article 15.1 of the 1976 International Covenant on Economic, Social and Cultural Rights prescribes that: “The States Parties to the present Covenant recognize the rights of everyone: (a) to take part in cultural life; (b) to enjoy the benefits of scientific progress and its applications; (c) to benefit from the protection of the moral and material interests resulting from any scientific, literary, or artistic production of which he is the author. “Therefore, on the issue of the relationship between human rights and IP, international conventions on human rights first admit the lawful rights of the mass with the intellectual products and that the protection of the inventors’ rights cannot be beyond other basic rights of the mass. Second, the conventions on human rights

also admit the significance of the development of science and technology and the potential conflicts between private and public interests in sharing the products brought by scientific advancement. Policy makers in a country should seek a balance between the inventors' interest and public interests and prioritize the latter, because the purpose of IP regime is not only to ensure the inventors' benefits but also to promote the science, technology, culture, and economy of the whole society with the help of the inventors' products. According to the foregoing discussion, developing countries, having no intention to accept the strict standards on IP protection, recognized the effectiveness of the standards involuntarily, so the law enforcement organs of developing countries are doomed to have no initiatives in strict law enforcement and even take a protectionist attitudes conniving at the infringement of foreign IP for the purpose of economic development. The developed countries may impose continual pressure in consideration of their own interests, or stress domestic enterprises to drive the developing countries to strictly enforce laws and regulations, thus leading to the contradiction deepened and international instable factors.

3.2.2 Effectiveness: probability for realizing the aim or social effects scheduled by norms

In developing countries, from government organs to ordinary persons, people generally lack the confidence in the IP laws and regulations on the ground of different reasons, and thus not only do they have low enthusiasm in active compliance, but also there are quite a few people who even believe that there is no necessity to be bound by such laws and regulations because they are laws that are not beneficial in essence for the groups lagging behind in development. Therefore, it is natural that the probability of realizing the aim or social purpose scheduled by such laws and regulations is very low. The basic economic theory can be used to explain the reasons for this phenomenon. In society, the act of a person not only involves his own cost and benefits, but also may impose them on others, which is called externality. Economists call the cost assumed directly by the subject of the act individually "private cost" and call the benefits enjoyed directly by the individual "private benefits". Correspondingly, the total of the private costs and external cost is called "social cost" and the total of the private benefit and the external benefit is called "social benefit". The decision-making of a rational person is based on the comparison of the private cost with the private benefit. The optimal individual decision-making is reached when the marginal private cost is equivalent to the marginal private benefit, and the Pareto Optimality[12] means the social optimality

[12] From Wiki Encyclopedia, free encyclopedia web page (latest access on 2005.1.21). http://zh.wikipedia.org/wiki/%E5%B8%95%E7%B4%AF%E6%89%98%E6%9C%80%E4%BC%98.

is realized when the marginal social cost is equivalent to the marginal social benefit. So unless an act does not produce externality (i.e. the social cost is equivalent to private cost and social benefit is equivalent to private benefit.), the optimal individual decision-making of a rational person cannot be equivalent to the optimal social decision-making (the marginal social cost is equivalent to the marginal social benefit). Pareto improvement refers to a sort of variation that makes at least one person better under the condition that no one is made worse. Pareto Optimality is the state where there is no leeway for Pareto Improvement, and Pareto Improvement is the way and method to realize Pareto Optimality (Zhang, 2003).

Suppose a person A from a developing country, sells pirated CDs at the cost of RMB 5 and the selling price of RMB 15; and another person B sells authorized legalized CDs from a developed country at the cost of RMB 30 and the selling price of RMB 40. When a buyer C finds that A and B sell same goods at different prices, as a rational person, he will choose to buy the pirated CDs from A and save RMB 25, which is the benefit C acquires. A also gains the benefit of RMB 10 and B has no benefit as no sale was made. The total social benefit for A, B, and C is RMB 35. From the cost perspective, A's cost is RMB 5 and B's cost should be RMB 30, and since C does not buy CDs from B, B loses an opportunity cost at RMB 10, and as a result, B's total cost is RMB 40. C is the consumer, who has no manufacturing or purchase cost. Hence, the total social cost, therefore, is RMB 40. Since the total social cost is higher than the social benefit, this behavior is harmful to the whole society. In brief, the external cost hereof is A's and C's benefits coming from the cost imposed on B, even if A and C have acquired the benefits by adopting the optimal choice, which is not the optimal choice for B. B has to lower his selling price so that C will choose to buy from B when making the choice for purchase of the products, in which way the external cost on B transferred from A and C may be lowered. This is the so-called Pareto improvement. This is only true for Buyer C and Seller B. As for A, he does not have to make any change because he has advantage of price. In terms of price and (Buyer) C's mindset, A and C have already achieved Pareto optimization. We can draw the same conclusion through analysis by using Edgeworth Box or Game Theory. B can certainly have other ways to reduce the possibility for piracy trade between A and C and make C finally turn back to B for purchase of the same products and make A give up the piracy sale. Hence, we can see from the above-mentioned analysis that this idea is still ineffective in developing countries.[13]

The difference between the poor and rich country and the poor and rich man is not only because the poor country and poor man have less capital, but also that they get less knowledge (World Bank, 1999). Knowledge distribution is the reason

[13] Acknowledgements: The completion of this section has benefited from Mr. Wang Zhengzhong, Department of Economics, Soochow University.

of and also the result of society inequality. The person with privileged rights gets easier access to knowledge and in the knowledge world, accessing knowledge means the transmission of influence and even rights (Nico Stehr, 1994). Unlike the United States, which was capable of changing the rules of the game after having met "anthrax" attack, poor countries, however, have no rights to make rules and have no say but exhaust all means for saving their lives. By now, the United States still refuses to sign the *Kyoto Protocol*, which obviously proves that developed countries just select the international rules they want to obey. If the American practice is acceptable, whether can people from general developing countries buy or produce unauthorized life-saving medicines without claiming for "indirect" urgent refuge, or isn't it reasonable or even inevitable to advocate the purchase of pirated software?

3.3 Summary

Since the law of IP rights is inferior to constitution, when IP rights are in conflict with the basic rights, any conflicting part shall be considered invalid by the judicial organs of our country. Therefore, the difficulty is how to establish an IP rights law that are in line with both the purposes of IP protection and the requirements of the protection of human rights, which can, at the same time, be put into the practice of judgment. All that depends on the ongoing joint efforts of the academic and practical circles. To such end, our country shall unite all the developing countries of identical interests and combine with the organizations in developed countries, the sense of justice, such as "The UK Commission on IP Rights" for the purposes of facilitating new thoughts in formulating and applying the law of IP rights, and gradually implement them in international conventions and laws of nations under the prerequisites for common pursuit of the harmonious development of human society.

4 Conclusion: countermeasures and outlook of Chinese legal system and policies of IP rights

Generally speaking, developed countries, as represented by the United States, have broadened the digital gap with the other countries of the world by developing high-tech and monopolizing core industrial technologies for the purposes of acquiring high added values of knowledge, and reinforcing their directing positions in the world economy. Through controlling the valves against technological proliferation, they also realize the control over international division of labor and the level of economic development of nations of the world, hence ensuring that they may dominate the optimal position permanently in the international

economic system. Knowledge hegemony is the cornerstone of the soft power of the United States, which in turn provides the United States with important measures for establishing a new international order. Soft-right theory occurred in the 1990s with the development of information revolution and the need of the United States for building a new international order. Joseph S. Nye (1990), Professor of Harvard University and former Assistant Secretary of the United States believed that "soft right is as important as hard right. If a country makes its right justified in the eyes of other nations, such right will find less resistance in realizing its expectations; if their culture and ideology are attractive, other nations would like to be their followers; if they can establish an international practices in line with other societies, such practices would not likely to be changed; if they can establish a series of organizations other countries agree to create or for restricting their behaviors, and such is what is expected by other dominating countries, a huge amount of cost may be saved for the operation of hard power." Hence, it can be seen that developed countries have been controlling the resources and development progress of developing countries through the law of IP rights, which is not a case framed from nowhere by developing countries against developed countries for resisting the uniform applied protection standards of IP rights.

Much of the current structure of international law of IP rights has sacrificed the development requirement of developing countries. The developed countries and the related international organizations should make efforts to help the developing countries, so that the latter can adopt their own laws of IP rights suitable for the present situation of their development requirements rather than forcing them to follow suit the laws of the European and US countries. While formulating and implementing the policies of IP rights, we should also take the current development status and situation of our own country into consideration, and it is not proper for us to take as model the European and US legal systems. In patent laws, we should pay attention to the long-term development objectives of biotechnology, medicine, etc. and enhance the researches in such fields. We should also make flexible use of the optional choices available to our country under the current international and bilateral agreement frameworks and avoid excessively strict legislation that prevents our opportunities for research, innovation, and enhancing the technological capability. In addition, we should note that foreign enterprises have applied for a large number of high-tech related patents by such ways as technological patents and patent standardization for strengthening their trade barriers. Meanwhile, based on their position of technological monopoly, they implement price discrimination against consumers and charge higher patent licensing fees, which are the usual devices of abuse of IP protection. As a result, while formulating the anti-monopolization law, we shall also regulate and restrict the abuse of IP rights (Qiao and Tao, 2005). With respect to copyrights, it is not proper for us to

be too strict in the interpretation of "reasonable use" in practice for the purposes of avoiding the impediment in knowledge transmission and cultural development, and especially for the need of research and teaching and for the application of libraries, we shall have a large space for reasonable use thereof.

In short, the legal system of IP rights of a country should match the level of her corresponding social, economic, and technological development, whereby proper protection standards of IP rights may facilitate social development, but excessive standards will prevent technological development and knowledge transmission (Barton et al., 2002). Especially, since the developing countries are always not sufficiently informed of what are the flexible choices they enjoy under the TRIPS framework, and they are not sure how to adopt a strict standard on patentability or narrow the scope of patents, it is likely that they may formulate a IP protection standard that exceeds its development level. China is a good example in such aspect (Shen and Qiao, 2002), and we have even overdone it, particularly in the practice of administration, execution and judicial judgment (Shen and Qiao, 2002). Therefore, "The Commission" expects that its research report may have an educational function for guiding developing countries to combine the formulation and future revision of the laws of IP rights with their domestic development policy, and to take wide suggestions (Barton et al., 2002). With respect to the execution of the law of IP rights, a complete judicial system shall be established, and efforts shall be made to solve the disputes over IP rights by administrative and civil means rather than depending on criminal judicial measures, so as to avoid the excessive high cost in promoting the IP rights system (Barton et al., 2002). Provided the priority of human rights value is met, the construction and promotion of our new laws and policies of IP rights will inevitably meet certain tense relationship with the developed countries. Therefore, besides the enhancement of our economic strength for adding our weights in negotiations, it will be really helpful for us to integrate various rights endowed by laws for making reasonable efforts in international space and for wide publicity of our rights. Of course, during this period we also need to punish severely the aberrant behaviors in infringement of IP rights solely for commercial benefits in the entire process from production to consumption, so as to manifest to the international society our firm standpoints. Only on such basis can the campaign for the safeguard and promotion of the "new" IP rights with priority in human rights value be carried out successfully.

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