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Importing Doesn't Work: Justifying Local Working Requirements through a Historical, Theoretical, and Contractual Perspective

Abstract

This paper builds on existing criticisms of the TRIPS Agreement by attempting to justify local working requirements from a more theoretical perspective. The paper argues that if the existence of intellectual property rights is justified based on utilitarianism or bargain theory, then it necessarily follows that TRIPS should provide developing countries with flexibility to legislate local working requirements that demand more than just importing.

Keywords

local working, patent, patents, international, intellectual property

IMPORTING DOESN'T *WORK*: JUSTIFYING LOCAL WORKING REQUIREMENTS THROUGH A HISTORICAL, THEORETICAL, AND CONTRACTUAL PERSPECTIVE

ADAM BIERYLO*

INTRODUCTION

In the context of patent law, local working is the requirement that, to maintain exclusive rights, the owner of a patent “must manufacture the patented product, or apply the patented process, within the patent granting country.”¹ Many scholars view this requirement “as an essential element to balance the patent system ... because it may create opportunities for the transfer of technology,”² especially for developing countries. With the advent of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS),³ however, the traditional conception of local working has been brought into question. On its face, Article 27.1 of TRIPS prohibits countries from legislating local working requirements that discriminate between imported and locally produced products.⁴ TRIPS thus seems to indicate that importing of a patented product, in the place of local production, can satisfy local working requirements. Yet such a rule appears to be in conflict with a primary objective of TRIPS: contributing to the transfer and dissemination of technology.⁵

This article proposes to build on existing criticisms of TRIPS by justifying local working requirements theoretically. If the existence of intellectual property rights (IPRs) can be justified by utilitarianism or bargain theory, then developing countries should be allowed flexibility under TRIPS to legislate local working requirements that demand more from patent holders than just sufficient importing.

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¹ Michael Halewood, “Regulating Patent Holders: Local Working Requirements and Compulsory Licenses at International Law” (1997) 35:2 Osgoode Hall LJ 243 at 249.

² Carlos M Correa, “Can TRIPS Agreement foster technology transfer to developing countries?” in Keith E Maskus & Jerome H Reichman, eds, *International Public Goods and Transfer of Technology under a Globalized Intellectual Property Regime* (New York: Cambridge University Press, 2005) 227 at 240, citing Halewood, *supra* note 1.

³ 1869 UNTS 299, 33 ILM 1197 (Annex 1C of the Marrakesh Agreement establishing the World Trade Organization, signed in Marrakesh, Morocco on 15 April 1994) [TRIPS].

⁴ *Ibid* at Art 27.1: “patents shall be available and patent rights enjoyable *without discrimination* as to ... whether products are *imported* or *locally produced*” [emphasis added].

⁵ See e.g., *ibid* at Art 7, which states the objectives of TRIPS: “The protection and enforcement of intellectual property rights should contribute to ... the transfer and dissemination of technology....”

The article is structured as follows: Part I briefly canvasses the historical significance of local working requirements. Part II reviews the current state of and uncertainty surrounding local working requirements under TRIPS. Part III uses the utilitarian theory of intellectual property to argue that it is difficult to theoretically justify satisfying local working requirements through importing alone. Part IV considers the same argument from the bargain theory of patents, to show why TRIPS should allow developing countries more flexibility in legislating local working requirements. The article is concluded in Part V.

I. THE HISTORY OF LOCAL WORKING REQUIREMENTS

Historically, local working formed the foundation on which patent rights were granted. In the 14th century, some of the first patents were granted in Italian city-states through royal and state prerogative.⁶ European jurisdictions used patents as a tool to attract skilled foreigners to practice their arts in local economies.⁷ Patents were thus initially utilized to further local innovation through attracting foreign industries.⁸ For example, England granted patent monopolies to foreigners to use their skills for producing and supplying the local markets “with salt, silk, textiles, mining, metallurgy, and ordinance.”⁹ A significant objective of the English patent system was ensuring domestic production of materials and goods that were being imported from abroad.¹⁰ It is apparent that in granting these early patents, there was an expectation that the patentee would work the subject matter covered by the patent.

The earliest patent legislation was the Venetian *Patent Act of 1474*.¹¹ Under this Act, the patentee was required to actively exploit the patent to maintain exclusive rights.¹² Subsequent legislation seemed to take a similar approach. Under the English *Statute of Monopolies*, the working of patents was mandated. The French *Patent Law* provided importation patents, which granted the right to work foreign inventions in France, but with the condition that the patentee would not obtain a foreign patent on the same invention.¹³

Encouraging the transfer of skills and technologies from foreign jurisdictions ensured economic growth through domestic industrialization; it also helped achieve

⁶ Halewood, *supra* note 1 at 251, citing C MacLeod, *Inventing the Industrial Revolution: The English Patent System 1660-1800* (Cambridge: Cambridge University Press, 1988) at 11.

⁷ *Ibid.*; Paul Champ & Amir Attaran, “Patent Rights and Local Working Under the WTO TRIPS: An Analysis of the US-Brazil Patent Dispute” (2002) 27 *Yale J Int'l L* 365 at 370.

⁸ Srividhya Ragavan, *Patent and Trade Disparities in Developing Countries* (Oxford: Oxford University Press, 2012) at 4.

⁹ Halewood, *supra* note 1 at 251, citing MacLeod *supra* note 6 at 12.

¹⁰ Ragavan, *supra* note 8.

¹¹ Halewood, *supra* note 1 at 251.

¹² *Ibid.*

¹³ *Ibid.*

several public policy goals, such as “employment creation, industrial and technological capacity building, national balance of payments, and economic independence.”¹⁴ As exemplified by the early English and French patent regimes, the *absolute* novelty of an invention was not a general requirement to obtain a patent. Giving exclusive rights to *domestically* novel inventions, even if they had been disclosed internationally, made sense when economies were local and communication about technological progress was considerably less efficient. The patentee provided a great service to the patent granting country by working foreign technologies into the local economy. It is evident that one original rationale of the patent system was to provide incentives for working new technologies locally to aid national self-interest and industrial progress.¹⁵

The Paris Convention

Due to the importance of industrialization in granting patent rights, some countries (such as France) held that importing any patented material would revoke the corresponding patent.¹⁶ Revoking a patent based on any importing was, however, eventually seen as an abuse of the local working requirements. The first multilateral treaty to standardize intellectual property, the *Paris Convention for the Protection of Industrial Property*,¹⁷ dealt with this problem when it was introduced in 1883.¹⁸ The treaty ensured that *some* importing would not revoke patent rights—as long as it did not “threaten the effective local working of the patent.”¹⁹ However, local working was still necessary where legislated.²⁰

In 1967, the *Paris Convention* was revised and became more explicit regarding permissible local working requirements, with Article 5(A)(2) stating that

[e]ach country ... shall have the right to take legislative measures providing for the grant of compulsory licenses to prevent abuses which might result

¹⁴ *Ibid* at 246.

¹⁵ Champ, *supra* note 7 at 371.

¹⁶ Graham Dutfield & Uma Suthersanen, *Global Intellectual Property Law* (Cheltenham: Edward Egar Publishing, 2008) at 24.

¹⁷ 20 March 1883, 828 UNTS 305 (as amended 28 September 1979) [*Paris Convention*].

¹⁸ Halewood, *supra* note 1 at 252.

¹⁹ *Ibid* at 250, 252. (As the original wording of article 5(1) of the *Paris Convention*, *supra* note 17 recites, “The importation by the patentee into the country where the patent has been granted of articles manufactured in any of the States of the Union shall not entail forfeiture of the patent”).

²⁰ See *ibid* (As the original wording of article 5(2) of the *Paris Convention*, *supra* note 17 recites, “Nevertheless, the patentee shall remain under the obligation to exploit his patent in accordance with the laws of the country into which he introduces the patented articles”).

from the exercise of the exclusive rights conferred by the patent, for example, failure to work.²¹

This was an important revision, as a failure to work was expressly recognized as an abuse of international law.²² During the 1967 revision, it was confirmed that member states were free to define what they understood “working” to mean, but that working a patent was generally understood to mean “the actual use of the patent within the patent granting country.”²³ Specifically, this included working the patent industrially—“by manufacture of the patented product, or industrial application of a patented process.”²⁴ For over a century after the *Paris Convention* was introduced, two principles thus remained clear: member countries could legislate local working requirements and importing would not forfeit a patent as long as it did not threaten effective local working.²⁵

II. THE UNCERTAINTY OF LOCAL WORKING REQUIREMENTS UNDER TRIPS

TRIPS—which entered into force on 1 January 1995—is an international, multilateral agreement that imposes minimum standards of protection for various IPRs, including patents.²⁶ Despite the historical significance of local working requirements for nation building, the advent of TRIPS—specifically Articles 27.1 and 2.1—brought about uncertainty as to whether members could legislate local working requirements. Article 27.1 states that “patents shall be available and patent rights enjoyable without discrimination as to ... whether products are imported or locally produced.”²⁷ On its face, Article 27.1 seems to prohibit countries from legislating local working requirements that discriminate between products based on whether they are imported or locally produced. However, Article 2.1 incorporates by reference Article 5 of the *Paris Convention*,²⁸ which provides that a failure to work—generally defined as not manufacturing the product or using the patented process in the patent granting country²⁹—is an abuse of the exclusive rights conferred by a patent for which the country can grant a compulsory license.³⁰ As outlined previously, Article 5 permitted

²¹ *Paris Convention*, *supra* note 17 at Art 5(A)(2).

²² Champ, *supra* note 7 at 372.

²³ Halewood, *supra* note 1 at 253, citing Georg HC Bodenhausen, *Guide to the Application of the Paris Convention for the Protection of Industrial Property, as Revised in Stockholm in 1967* (Geneva: United International Bureaux for the Protection of Intellectual Property, 1968) at 71.

²⁴ *Ibid.*

²⁵ Halewood, *supra* note 1 at 253-54.

²⁶ Maxwell R Morgan, “Medicines for the Developing World: Promoting Access and Innovation in Post-TRIPS Environment” (2006) 64 UT Fac L Rev 45 at 59.

²⁷ TRIPS, *supra* note 3 at Art 27.1.

²⁸ *Ibid* at Art 2.1.

²⁹ Bodenhausen, *supra* note 23.

³⁰ *Paris Convention*, *supra* note 17 at Art 5(A)(2).

some importing of a patented product as long as it did not negatively affect the local working of the patent. A strict reading of Article 27.1 seems to alter this historical relationship between importing and local working: sufficient importing of the patented product must necessarily satisfy any local working requirements, or else the local working requirements are illegal.

It is questionable whether altering this historical relationship between importing and local working was mutually agreed to by member countries. Records of the Uruguay Round of negotiations surrounding TRIPS reveal that during negotiations “several developing countries defended the right to impose local working requirements,”³¹ and wanted to make local working a “mandatory obligation of any patentee.”³² However, there is no clear record revealing what effect the negotiating parties thought the wording of the final draft of Article 27.1 would have on local working requirements; instead of being negotiated, the final draft was arbitrated by the GATT secretariat in an attempt to come to a compromise and conclude negotiations.³³ It does not seem that developing countries withdrew their concerns regarding local working requirements,³⁴ making it somewhat unlikely that their intention was for importing alone to satisfy local working requirements.

It may be that developing countries’ concerns regarding the uncertainty surrounding local working requirements were somewhat alleviated by TRIPS’ focus on promoting the technological development of developing and least developed members through the transfer of technology. The preamble of TRIPS states that the Agreement should “[recognize] the special needs of the least-developed country Members in respect of maximum flexibility in the domestic implementation of laws and regulations *in order to enable them to create a sound and viable technological base.*”³⁵ Article 8 mentions the purpose of TRIPS, recognizing that measures may be needed to prevent the *abuse* of IPRs as well as the use of practices that affect the international transfer of technology.³⁶ It is notable that under the assimilated *Paris Convention* Articles, failure to work is specifically identified as an *abuse* of IPRs.³⁷ Further, Article 7 outlines the objectives of TRIPS, one of which is that “the protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the *transfer of technology.*”³⁸

In addition to the general emphasis on promoting technological development and the transfer of technology found in TRIPS’ preamble and Articles 7 and 8, both Articles

³¹ Correa, *supra* note 2 at 241.

³² Champ, *supra* note 7 at 369.

³³ *Ibid* at 374, 378-79, 390.

³⁴ *Ibid* at 370; Correa, *supra* note 2 at 241-42.

³⁵ TRIPS, *supra* note 3 at preamble [emphasis added].

³⁶ *Ibid* at Art 8.

³⁷ *Paris Convention*, *supra* note 17 at Art 5(A)(2).

³⁸ TRIPS, *supra* note 3 at Art 7 [emphasis added].

66.2 and 67 provide direct obligations on developed countries to promote technology transfer to developing and least developed members.³⁹ Article 66.2 imposes clear obligations on developed members to provide incentives for technology transfer:⁴⁰

Developed country Members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least-developed country Members in order to enable them to create a sound and viable technological base.⁴¹

Article 67 is even more specific, requiring developed members to assist both developing and least developed members in

the preparation of laws and regulations on the protection and enforcement of intellectual property rights as well as on the prevention of their abuse, and shall include support regarding the establishment or reinforcement of domestic offices and agencies relevant to these matters.⁴²

Establishing workable IP regimes is seen as an effective way to promote technology transfer, especially with respect to least developed members.⁴³

Further, Articles 30 and 31 relate to the granting of compulsory licenses, and as Michael Halewood notes, such licenses result in obvious advantages with respect to the transfer of technology: “[C]ompulsory licences allow third parties to exploit on a local basis that technology which the original patentees failed to introduce into the country in the first place, or failed to use once it was introduced.”⁴⁴

In joining TRIPS, developing countries agreed to adopt stronger IPRs in exchange for technological development,⁴⁵ and the above provisions make it clear that a principal concern of TRIPS is to ensure technological development through the transfer of technology. However, as will be discussed in the subsequent sections, the effectiveness of these provisions with respect to the transfer of technology to developing countries is questionable. The legality of legislating local working

³⁹ Andrew Michaels, “International Technology Transfer and TRIPS Article 66.2: Can Global Administrative Law Help Least-Developed Countries Get What They Bargained For?” (2010) 41 *Geo J Int'l L* 223 at 228.

⁴⁰ *Ibid* at 224.

⁴¹ TRIPS, *supra* note 3 at Art 66.2.

⁴² *Ibid* at Art 67.

⁴³ Michaels, *supra* note 39 at 229.

⁴⁴ Halewood, *supra* note 1 at 246.

⁴⁵ Michaels, *supra* note 39 at 260, citing Susan K Snell, “Intellectual Property & Trade: The Quest for TRIPS and Post-TRIPS Strategies” (2002) 10 *Cardozo J Int'l & Comp L* 79 at 83.

requirements that demand more than merely importing deserves careful consideration to ensure that developing countries receive what they bargained for.

Because local working requirements promote the transfer of technology, scholars view them as essential to balance the patent system,⁴⁶ and as an excellent mechanism for industrialization.⁴⁷ Industrialization leads to increased human capital and technological infrastructure, both of which are necessary components for utilizing IPR regimes to further the transfer of technology, but which are often lacking in developing countries.⁴⁸ Actual working of—not just importing—an invention in the patent granting country is historically seen as the most efficient way of transferring technology.⁴⁹ By requiring importing to satisfy local working requirements, however, the only transfer that Article 27.1 guarantees is that of finished commodities.⁵⁰ This practice historically led to a patent being deemed invalid⁵¹ and, as it did not satisfy the industrial and economic development rationale for granting a patent, has justified the granting of compulsory licenses.⁵² This may explain why developing countries opposed limiting local working requirements during the Uruguay Round of negotiations, but it does not help resolve the apparent inconsistencies between local working requirements and TRIPS.

Critics of TRIPS have tried to resolve the apparent inconsistencies in a number of ways. Halewood argues that “domestic law requiring mandatory working ... would not contradict the substantive provisions” of TRIPS.⁵³ In making this argument, Halewood reviews the history of local working requirements, and argues for interpretations of TRIPS that are consistent with the *Paris Convention*. He concludes that redefining working “to permit 100 percent importing ... effectively reverses the historical function of patents,”⁵⁴ and that this interpretation “emphasizes protection of foreign patentees, to the exclusion of any consideration of local interests in technology transfer.”⁵⁵

Brian Mercurio and Mitali Tyagi provide technical legal arguments, exploring treaty interpretation within the context of the World Trade Organization (WTO) to determine whether local working requirements are legal under international law.⁵⁶ They

⁴⁶ Correa, *supra* note 2.

⁴⁷ *Ibid* at 229.

⁴⁸ Michaels, *supra* note 39 at 223, 237-38.

⁴⁹ World Intellectual Property Organization, ed, *Introduction to Intellectual Property: Theory and Practice* (London: Kluwer Law International, 1997) at 146 [WIPO].

⁵⁰ Halewood *supra* note 1 at 247.

⁵¹ *Ibid* at 267.

⁵² *Ibid*.

⁵³ *Ibid* at 247.

⁵⁴ *Ibid* at 260.

⁵⁵ *Ibid*.

⁵⁶ Bryan Mercurio & Mitali Tyagi, “Treaty Interpretation in WTO Dispute Settlement: The Outstanding Question of the Legality of Local Working Requirements” (2010) 19:2 *Minn J Int’l L* 275 at 275.

analyze the issue with “strict adherence to the principles of treaty interpretation that guide decision-making in the WTO’s Dispute Settlement Body,”⁵⁷ concluding “that the incorporation of Article 5(A)(2) of the *Paris Convention* cannot be read down, and thus working requirements are consistent with the TRIPS Agreement.”⁵⁸

Paul Champ and Amir Attaran also follow a technical argument, but base their argument on Articles 30 and 31—the compulsory licensing provisions within TRIPS.⁵⁹ They argue that, on its face, Article 31 would permit compulsory licensing for failure to work.⁶⁰ They try to establish Article 27.1 of TRIPS as a general provision, subject to specific exceptions contained in Articles 30 and 31, and possibly Article 5(A)(2) of the *Paris Convention*.⁶¹ They conclude that according to principles of legal construction, because “the specific exceptions allow compulsory licensing for a failure to work ... this is dispositive of the general provisions which, if read alone, seem to prohibit it.”⁶²

The remainder of this article will take a different approach than the above criticisms, focusing instead on legal theory. It will argue that if a country justifies granting IPRs based on either utilitarian or bargain theories, then it necessarily follows that developing countries should be provided with flexibility under TRIPS to legislate local working requirements that demand more than just importing.

III. UTILITARIAN JUSTIFICATIONS FOR LOCAL WORKING REQUIREMENTS

A country’s level of development greatly impacts the justifications used for IPRs, particularly with respect to patent rights.⁶³ Although scholars use various theoretical perspectives, modern patent systems seem to rely most heavily on utilitarianism.⁶⁴ Natural rights theory played a role in the history of patent systems, but does not seem to play any role in modern systems.⁶⁵

Under utilitarianism, property rights should be structured to maximize net social welfare.⁶⁶ This includes balancing the power of exclusive rights to provide incentives to innovate with the offsetting tendency of such rights to restrain widespread transfer and use of resulting inventions.⁶⁷ Further, to justify state intervention, utilitarian patent

⁵⁷ *Ibid.*

⁵⁸ *Ibid* at 275-76.

⁵⁹ Champ, *supra* note 7.

⁶⁰ *Ibid* at 368.

⁶¹ *Ibid* at 367.

⁶² *Ibid* at 367-68.

⁶³ Dutfield, *supra* note 16 at 110.

⁶⁴ Pia Weiss, *Patent Policy: Legal-economic effects in a national and international framework* (New York: Routledge, 2010) at 22.

⁶⁵ *Ibid* at 24.

⁶⁶ William Fisher, “Theories of Intellectual Property” in Stephen R Munzer, ed, *New Essays in the Legal and Political Theory of Property* (Cambridge: Cambridge University Press, 2001) 168 at 169.

⁶⁷ *Ibid.*

theories have to first demonstrate market failure.⁶⁸ This means that a government should only impose a set of rules if the *actual* level of inventive activity is below the welfare maximizing level of such activity. Within this framework of utilitarianism, the most common theory used to justify state intervention in patent regimes is the incentive theory.⁶⁹

Under the incentive theory, the focus is on ensuring inventors have an incentive to innovate. An inventive idea can require substantial initial investment, and ideas in themselves are non-rivalrous and can easily be copied. If an inventor is aware of the risk that he may not recoup his initial investment due to being undercut by imitators, this will likely deter him from pursuing inventive endeavors in the first place. Further, inventions are regarded as socially valuable: product innovations can more effectively satisfy human desires and process innovations can more efficiently perform tasks,⁷⁰ with both spurring additional research based on the initial technologies.⁷¹ As a result, inventions and increased innovation provide the opportunity for greater net social welfare. Incentive theory can therefore justify the state providing patent rights that simultaneously maximize inventive activities while not overpowering the transfer and use of the technologies resulting from the inventive activities. Accordingly, the questions to ask are (1) how allowing developing countries to legislate local working requirements affects the global incentive to innovate, and (2) whether allowing importing alone to satisfy these requirements increases this incentive without disproportionately impeding the transfer of technology.

Developed countries will likely argue that local working requirements—and weaker IPRs in general⁷²—result in less incentive for innovation. Reasons for this may include that developed countries require the ability to export products without direct foreign investment or licensing, and that technology transfer to developing countries with weaker IPRs may result in additional competition within the global market from imitation and export of the technology out of the developing country.⁷³ Both of these possible explanations seem to be based on a fear that the potential market within the developing country will not provide a sufficient return under such conditions.⁷⁴ It is difficult, however, to justify these arguments under the incentive theory of utilitarianism with respect to local working requirements, for the following reasons.

⁶⁸ Weiss, *supra* note 64 at 27.

⁶⁹ Paul J Heald, “A Transaction Costs Theory of Patent Law” (2005) 66:3 Ohio St LJ 473 at 473-74; Edwin C Hettinger, “Justifying Intellectual Property” (1989) 18:1 Philosophy & Public Affairs 31 at 47.

⁷⁰ Weiss, *supra* note 64 at 25.

⁷¹ *Ibid.* See generally, European Patent Office, “Why researchers should care about patents” (2007), online: European Patent Office <<http://www.ec.europa.eu>>.

⁷² Correa, *supra* note 2 at 230-31.

⁷³ *Ibid.*

⁷⁴ *Ibid.*

In order for firms in a developed country to invest in research and development, they generally require a market for the new product or process they hope to commercialize—this ensures that they can recoup their investment costs.⁷⁵ In turn, this requires that the target market not only have a demand for the product, but also sufficient purchasing power for the product to be sold at a sufficient profit to compensate the inventors for their sunken costs. For products with global markets, there is likely already a demand in other developed countries with strong purchasing power. Additional demand in developing countries—countries that are likely to have relatively low purchasing power—for the same technology provides little additional incentive to develop that particular technology. Allowing developing countries to legislate local working requirements would therefore not significantly affect the incentive to innovate technologies with a global demand.

Developing countries, however, may have specific technological and other demands that do not affect developed nations—for example, for pharmaceuticals to combat tropical diseases. It is questionable whether there is enough incentive for developed countries to create solutions to these problems.⁷⁶ For example, from 1975 to 1997, less than 1 percent of licensed drugs targeted tropical diseases, and in 1998, only 0.5 percent of pharmaceutical patents and 1.5 percent of references in scientific articles related to diseases specific to developing countries.⁷⁷

Does allowing imports to satisfy local working requirements provide any additional incentive to innovate solutions for such problems? It does not seem promising. Even if these countries provided IPRs as strong as those in developed nations, they would still likely lack the purchasing power necessary to allow firms to recoup any investment costs with respect to developing targeted technologies. Accordingly, it does not seem that allowing developing countries to legislate working requirements that demand more than importing would affect global incentives toward innovation.

However, even a slight increase in incentives to innovate may benefit those in urgent need of specific technologies. In the event that local working requirements do reduce incentives to develop useful targeted technologies, can they still be justified from a utilitarian perspective if the benefits of these requirements in promoting more effective technology transfer outweigh the increased incentives that would result without them?

⁷⁵ Lee G Branstetter, “Do Stronger Patents Induce More Local Innovation?” (2004) 7:2 J Int’l Econ L 359 at 364.

⁷⁶ See Michael Spence, “Which Intellectual Property Rights are Trade Related” in Francesco Francioni, ed, *Environment, Human Rights and International Trade* (Oxford: Portland Oregon, 2001) at 268.

⁷⁷ Jean Olson Lanjouw, “Beyond TRIPS: A New Global Regime” (2002) 1:3 Center for Global Development at 2

As mentioned, the main historical device for the transfer of technology and industrialization was the requirement for local working of inventions. Local working requirements induce foreign direct investment and generate partnerships between countries, either of which can result in an increase in local employment and economic growth.⁷⁸ Further, by ensuring that the invention is worked in the local economy, the teaching effect is generally more powerful than through importing or providing an enabling disclosure alone.⁷⁹ For example, local working not only allows the worked technologies to become ingrained in manufacturing plants and other capital assets, but it also provides workers with intangible skills gained by implementing and operating the patented and other related technologies. In this way working a patent can further both social and economic goals.⁸⁰

It should also be noted that if local working requirements result in manufacturing capacity for certain technologies, neighbouring countries could also benefit through access to these technologies. In addition, the sooner developing countries are able to industrialize—which local working can facilitate—the sooner they can become more successful players in the international economy, resulting in more research and development globally. Technology transfer through local working can help achieve both of these positive outcomes.

Accordingly, utilitarian incentive theory suggests that any incentive to innovate derived from limiting local working requirements would likely be offset by the tendency of these limitations to restrain an excellent mechanism for the widespread transfer and use of the innovated technology. If incentive theory is used to justify a high level of patent protection in developing countries, it seems to also justify allowing these countries to legislate local working requirements that demand more than importing. As will be seen in the next section, looking at the granting of patent rights as a bargain between the state and the inventor leads to a similar conclusion.

IV. THE BARGAIN THEORY: LOCAL WORKING AS CONSIDERATION

*The patent monopoly should be purchased with the hard coinage of new, ingenious, useful and unobvious disclosure.*⁸¹

The patent has often been viewed as a compromise between the private interests of the inventor and the general interests of the public.⁸² It is essentially a bargain. The

⁷⁸ Annette Kur & Marianne Levin, *Intellectual Property Rights in a Fair World Trade System: Proposal for Reform of TRIPS* (Cheltenham: Edward Elgar Publishing, 2011) at 582.

⁷⁹ *Ibid.*

⁸⁰ *Ibid.*

⁸¹ *Apotex Inc v Wellcome Foundation Ltd*, 2002 SCC 77 at para 37, [2002] 4 SCR 153.

inventor offers as consideration to the public the disclosure of a new, useful, and non-obvious invention. In accepting the inventor's offer, the state, on behalf of the public, agrees to grant the inventor a right to exclude others from making, using, or selling the disclosed invention for a limited period of time. Providing sufficient disclosure of the invention satisfies the bargain for two main reasons: first, it helps stimulate technological progress, as basic research is generally allowed to be carried out on a patented invention without infringing any exclusive rights of the patent holder, thereby furthering innovation; second, it is generally expected that the invention will be carried out, thereby promoting industrialization and employment.⁸³

Developing countries, however, should be suspicious of whether this "consideration" they receive for offering stronger IPRs applies to them, and for good reason. Most of the patents issued in developing countries belong to a handful of foreign companies (mostly in the US, Japan, Germany, France, Great Britain, and Switzerland),⁸⁴ and TRIPS seems to reflect the needs of these countries in protecting IPRs for the purpose of exploitation, not economic development.⁸⁵ Further, the above benefits may be illusory in a global economy: only a small percentage of patents sufficiently disclose the patented invention,⁸⁶ and working through importation seems to be the new rule under TRIPS.⁸⁷ Necessitating stronger patent rights without providing flexibility to developing countries may not contribute sufficiently to their industrialization, and instead might simply prevent the import of cheaper imitation products.

The bargain rationale seems to breakdown further where there is seamless communication among nations. The inventor provides the state consideration in the form of an enabling disclosure of a *new* and useful invention, for which the state provides the inventor with temporary protection from domestic and foreign competition.⁸⁸ When an inventor patents his invention in a first country, however, its disclosure will generally become available to the world upon publication.⁸⁹ At this point, the invention loses absolute novelty. Granting a patent for technology that lacks absolute novelty made sense in the past when the requirement to work the invention locally provided the consideration for granting these rights.⁹⁰ In a time where

⁸² Richard Gerster, "Patents and Development: Lessons learnt from the economic history of Switzerland" (2001) 4 TWN Intellectual Property Rights Series at 3. See also *Teva Canada Ltd v Pfizer Canada Inc*, 2012 SCC 60 at paras 32-35.

⁸³ Gerster, *supra* note 82.

⁸⁴ *Ibid* at 4.

⁸⁵ This point is explored in more detail below.

⁸⁶ Gerster, *supra* note 82 at 3.

⁸⁷ TRIPS, *supra* note 3 at Art 27.1

⁸⁸ See e.g., *Patent Act*, RSC 1985, c P-4, ss 2 "invention", 27(1), 27(3), 42, 44.

⁸⁹ For example, if the patent is filed in the US, an individual will be able to access the disclosure upon publication through the USPTO PAIR, or Google Patents.

⁹⁰ See e.g., Ragavan *supra* note 8.

information about foreign technologies was not easily accessible, it seems that *local novelty*—introducing a foreign technology into the local economy—would be sufficient to satisfy the bargain theory.

However, consider what occurs in a global economy that provides seamless communication but restricts local working requirements. When a second country grants a patent to the inventor based on the same invention, it seems that there is no fresh consideration. What additional benefit does the second country receive from importing alone that it would not have received if it did not grant the patent? Even if the patent was not granted, the second country would nonetheless have access to the enabling disclosure of the patent.⁹¹

Further, if a firm finds it worthwhile to patent a technology in a country, then it is likely the country has a market for the patented technology. If a market exists, the country itself could potentially take advantage of the invention, or in the alternative, allow other countries to import the technology at a more competitive price. The countries will have access to the information contained in the filed disclosure upon publication of the patent, potentially enabling them to copy the technology and provide it at a cheaper price within the developing country.

Of course, the original patentee might also patent the invention in countries capable of producing and importing it into the developing country. Therefore, other countries might be barred from using the patented invention within their borders. However, the patent would only bar production within their borders, and the countries would be able to set up production facilities within the developing country—an appealing result. Having strong patent protection in other *developed* countries but not in the developing country can therefore potentially create an incentive for these countries to set up local production capabilities in developing countries—they may not be able to exploit the patented technology otherwise. Accordingly, if developing countries are allowed to legislate local working requirements, it would either provide consideration in the form of local production by the patent owner or provide a reason to issue non-exclusive compulsory licenses that may give rise to global competition and ensure a lower overall price of the technology. Both of these instances seem to satisfy the bargain.

In a global economy with seamless communication, allowing countries to legislate local working requirements seems to be a necessary condition under the bargain theory, as it is questionable whether any consideration would otherwise flow to developing countries.

⁹¹ See *supra* text of note 89.

A Broader Perspective: TRIPS, the Paris Convention, and the PCT

Critics might argue that a broader perspective towards the bargain theory is required: simply being a part of TRIPS, the *Paris Convention*, or the Patent Cooperation Treaty provides a benefit in itself. For example, under these agreements, the fictitious second country mentioned above can promise a limited time-frame in which it will disregard the invention's lack of absolute novelty and, in return, the second country will benefit in that the first country will also waive absolute novelty requirements for inventions initially patented in the second country. Both countries can then have access to more markets in which they can exploit their inventions. Consider, however, that these benefits are no longer between the inventor and a second country, but are derivative benefits flowing between the countries themselves.

Further, such an argument still does not provide a strong bargain argument with respect to developing countries. Countries that sell and export technology—mainly developed countries—will indeed benefit from a waiver of absolute novelty requirements. Economically weak countries, on the other hand, are predominantly importers of modern technology and, as such, rarely take advantage of the lateral opportunity to exploit their inventions in developed countries; they often lack the resources to develop and export new technologies effectively. In 1990, Switzerland's Government cautioned parliament that because developing countries are primarily importers of technology, increasing patent protection in these countries could be against their interests.⁹²

Another benefit that may be put forth is that TRIPS imposes obligations on developed members to aid developing and least developed members in building a "sound and viable technological base."⁹³ As outlined previously, Article 66.2 imposes direct obligations on developed members to provide incentives for technology transfer to least developed members. However, as Andrew Michaels notes, "Because Article 66.2 does not specify what type of incentives must be created, or how effective these incentives must be, developed countries have essentially been left to implement the provision, or not, as they see fit."⁹⁴ This lack of guidance is problematic. Suerie Moon conducted an analysis of whether the "Article 66.2 obligation [has] led developed countries to increase incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to [least developed country] members."⁹⁵ Despite employing a broad definition of "technology transfer",⁹⁶ Moon

⁹² Gerster, *supra* note 82 at 14.

⁹³ TRIPS, *supra* note 3 at preamble.

⁹⁴ Michaels, *supra* note 39 at 224.

⁹⁵ Suerie Moon, "Does Trips Art. 66.2 Encourage Technology Transfer to LDCs? An Analysis of Country Submissions to TRIPS Council (1999-2007)" (2008) UNCTAD-ICTSD Project on IPRs and Sustainable Development, Policy Brief Number 2 at 1.

found that Article 66.2 “has had a rather limited impact on the creation of incentives for developed country enterprises and institutions to transfer technology to [least developed countries],”⁹⁷ and that although further research is required, the results are not promising.⁹⁸

Article 67 may also be viewed as a potential “bartered for” benefit, in that it obliges developed members to assist developing countries in establishing workable IP regimes, which is often seen as an effective way to promote technology transfer.⁹⁹ Unfortunately, technology transfer experts agree that sufficient human capital and an established technological base are necessary for a country to benefit from stronger IPRs;¹⁰⁰ least developed countries generally lack both of these components.¹⁰¹ Because of this, such countries may not experience rising technology transfer upon implementing stronger IPRs as required under TRIPS,¹⁰² regardless of the IP regime imposed.

Permitting developing and least developed members to legislate local working requirements would likely provide these countries with the benefit for which they bargained in the form of direct and indirect technology transfer. As mentioned, if a foreign corporation wished to exploit a developing country’s market for a patented product, a legislated local working requirement would likely require some form of foreign direct investment. Such investment would likely lead to “positive spillover effects” in the developing country through employment, and demonstration or industrial integration of the patented technologies.¹⁰³ Such positive effects may help increase the developing country’s human capital and technological base, allowing it to then effectively utilize developed members’ obligation under Article 67 to assist the developing countries in implementing workable IP regimes. However, requiring foreign direct investment may in certain instances make entering a developing country’s market a less attractive venture. This may occur when the size of the country’s market is not large enough to provide a sufficient return on the investment required to legally “work” the patented technology. However, developing members should be allowed to weigh such costs and benefits for themselves based on individual developmental needs.

⁹⁶ *Ibid* at 5 (technology transfer included activities such as “financing purchase of technologies, incentives for foreign direct investment, matching business in developed countries with those in LDCs for skills-building purposes, training (including various scholarships and other educational opportunities in technical fields), support to education systems, providing venture capital, providing insurance against the risk of doing business in LDCs for technology-related firms, building a technical training component into an aid project, and sending skilled nationals to volunteer in a technical capacity in an LDC”).

⁹⁷ *Ibid* at 6.

⁹⁸ *Ibid*.

⁹⁹ Michaels, *supra* note 39 at 229.

¹⁰⁰ *Ibid* at 223, 246.

¹⁰¹ *Ibid* at 237.

¹⁰² *Ibid* at 237-38.

¹⁰³ *Ibid* at 232.

Accordingly, by being a member of TRIPS and incorporating stronger IPRs into their economies that prohibit effective local working requirements, it seems that developing countries are not receiving consideration for providing stronger IPRs. Instead, by incorporating stronger IPRs, these countries are subjecting themselves to more expensive imported goods¹⁰⁴ and are giving up some of the necessary flexibility required to align their intellectual property regimes with their developmental needs.

An Even Broader Perspective: the WTO Agreement

Critics may try to further broaden the scope of the bargain by looking to the World Trade Organization Agreement (WTO Agreement). By complying with TRIPS, developing countries can continue to take advantage of the WTO Agreement, with the benefits of international trade agreements outweighing any potential costs associated with TRIPS compliance.

However, there is controversy surrounding whether IPRs belong within the WTO regime in the first place.¹⁰⁵ In light of the flexibility offered by the *Paris Convention* in legislating local working requirements, during the 1960s and 1970s developing countries tried to revise the Convention to make it more favorable to development.¹⁰⁶ To justify this, they asserted that intellectual property should be used to stimulate invention, industrialization, and technology transfer.¹⁰⁷ Unfortunately, such attempts caused conflict between the interests of developed and developing countries, resulting in the collapse of the Paris Revision Conference.¹⁰⁸

Such attempts also likely caused the US and other industrialized countries to request that negotiations regarding IPRs be included in the General Agreement on Tariffs and Trade (GATT)¹⁰⁹ Uruguay Round.¹¹⁰ Developed countries pushed for a shift of the international patent regime from the World Intellectual Property Organization

¹⁰⁴ See generally, Gerster, *supra* note 82 at 8, citing Lisa Hayes, *Power, Patents and Pills: An Examination of GATT/WTO and Essential Drug Policies* (Amsterdam: Health Action International (HAI-Europe), 1997) at 23; Ragavan, *supra* note 8 at 36.

¹⁰⁵ For an overview of this controversy, see Spence, *supra* note 76. See also Laurence R Helfer, "Regime Shifting: TRIPS Agreement and New Dynamics of International Intellectual Property Lawmaking" (2004) 29 *Yale J Int'l L* 1 at 18-24.

¹⁰⁶ Gerster, *supra* note 82 at 6.

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.*; Jerome H Reichman & Catherine Hasenzahl, "Non-Voluntary Licensing of Patented Inventions: Historical Perspective, Legal Framework under TRIPS, and an Overview of the Practice in Canada and the United States of America" (2003) 5 *Intellectual Property Rights and Sustainable Development*, UNCTAD-ICTSD Project on IPRs and Sustainable Development at 12.

¹⁰⁹ 30 October 1947, 58 UNTS 187, Can TS 1947 No 27 (entered into force 1 January 1948).

¹¹⁰ Gerster, *supra* note 82 at 6.

into the jurisdiction of and the GATT and the WTO,¹¹¹ arguing that because IPRs were trade-related, they belonged within the realm of GATT.¹¹² Developing nations opposed such a regime shift mainly because the benefits that flowed from including intellectual property negotiations under the WTO regime largely favored industrialized nations,¹¹³ and because they feared that implementing stronger IPRs would constrict technology transfer.¹¹⁴ It is interesting to note that the Swiss Association of Commerce and Industries had similar views to those of the developing countries, viewing the treatment of intellectual property in GATT as a regime appropriate for dealing with “specific problems of the *industrialized countries*.”¹¹⁵

Despite this, the opposition of developing countries subsided after the US threatened to impose unilateral trade sanctions if the developing countries failed to provide sufficient protection of IPRs.¹¹⁶ According to one scholar, “TRIPS is a case of 12 US corporations making public law for the world.”¹¹⁷ The need to satisfy pharmaceutical and entertainment industries overshadowed the need to provide developing countries with an intellectual property regime that was appropriate for their developmental needs.¹¹⁸

It could, however, be argued that within the trade-related context of the WTO local working requirements create obstacles to trade.¹¹⁹ The aim of the GATT is to boost international trade and access to foreign markets,¹²⁰ and it does seem that not discriminating between imported and locally produced goods is consistent with this aim.¹²¹ But it is still difficult to reconcile such an aim with the importance of local working requirements within an international patent regime, especially within the context of developing countries.¹²² Incorporating patents into the GATT and WTO framework goes against the original purpose of a patent: developing and encouraging technological invention and dissemination.¹²³ As Nobel laureate in economics, Joseph E Stiglitz noted,

¹¹¹ See Reichman, *supra* note 108 at 12-13.

¹¹² Patricia Kameri-Mbote, “Patents and Development” in Yash Vyas et al, eds, *Law and Development in the Third World*, (Nairobi: University of Nairobi Faculty of Law, 1994) at 8.

¹¹³ Gerster, *supra* note 82 at 6.

¹¹⁴ Champ, *supra* note 7 at 373, n 54.

¹¹⁵ Gerster, *supra* note 82 at 6.

¹¹⁶ *Ibid*; Champ, *supra* note 7 at 373, n 54.

¹¹⁷ Dutfield, *supra* note 16 at 33, citing SK Sell, *Private Power, Public Law: The Globalization of Intellectual Property Rights* (Cambridge: Cambridge University Press, 2003) at 1, 96.

¹¹⁸ Dutfield, *supra* note 16 at 12.

¹¹⁹ Kur, *supra* note 78 at 581.

¹²⁰ *Ibid*.

¹²¹ *Ibid*.

¹²² *Ibid* at 582.

¹²³ Kameri-Mbote, *supra* note 112.

Intellectual property is important, but the appropriate intellectual property regime for a developing country is different from that for an advanced industrial country. The TRIPS scheme failed to recognize this. In fact, intellectual property should never have been included in a trade agreement in the first place, at least partly because its regulation is demonstrably beyond the competency of trade negotiators.¹²⁴

Further, the GATT and WTO incorporate principles of differential and more favorable treatment of developing countries.¹²⁵ Even though the WTO regime promotes such principles, TRIPS seems to lack similar flexibility that allows developing countries to implement TRIPS provisions in a way that promotes their development goals. Although TRIPS contains several provisions that are favorable to developing countries—such as transitional time periods (Articles 65.2 and 65.4), obligations on developed members to provide incentives for technology transfer (Article 66.2), and technical and financial assistance in establishing workable IP regimes (Article 67)—as outlined above, the effectiveness of these provisions is questionable, especially with respect to stimulating technology transfer. Accordingly, to argue that that developing countries attain the overarching benefit of WTO membership through TRIPS compliance ignores the argument that TRIPS either should not have been shifted into the WTO regime in the first place or that TRIPS should align with the WTO principles of differential and more favorable treatment of developing countries. If the latter were recognized, developing nations would receive sufficient flexibility to legislate important economic development mechanisms such as strict local working requirements.

It seems that the only reason a benefit would flow to developing countries from this broad perspective is that TRIPS is annexed to GATT, and violating TRIPS can result in generalized trade sanctions unrelated to the IPRs.¹²⁶ This is, however, a negative benefit and seems rather illusory. If TRIPS was not annexed to GATT, then developing countries could disregard the agreement without fear of repercussions to their international trade regime. If TRIPS provided the flexibility that GATT and WTO suggest should be included, then developing countries would be able to legislate according to their developmental needs.

As demonstrated, if the bargain theory justifies granting patent protection in accordance with the TRIPS regime, it also provides a strong argument for requiring

¹²⁴ Dutfield, *supra* note 16 at 12, citing JE Stiglitz, “Intellectual-property Rights and Wrongs” (16 August 2005), online: The Daily Times <http://www.dailytimes.com.pk/default.asp?page=story_16-8-2005_pg5_12>.

¹²⁵ Constantine Michalopoulos, “Special and Differential Treatment of Developing Countries in TRIPS” (2003) Quaker United Nations Office at 4.

¹²⁶ Puneet Satbir Yadav & Prashant R Dahat, “Patents Law and TRIPs: Compulsory Licensing of Patents and Pharmaceuticals” (2010) at 3, n 11, online: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1591470.

local working requirements that demand more than importing alone. Ensuring sufficient technology transfer through permitting the legislation of local working requirements seems to be the substantive consideration that would adequately satisfy the bargain for developing countries.

V. CONCLUSION

Historically, local working requirements were a tool used by developing nations to promote the transfer of technology¹²⁷ and industrialization.¹²⁸ Such requirements provide developing countries with the opportunity to learn new technologies and receive direct foreign investment that helps incorporate these technologies into the countries' infrastructure. It was questioned whether similar benefits result when importing is deemed to satisfy local working requirements.

From a utilitarian theory perspective, it seems that limiting developing countries' ability to legislate local working requirements does not provide the additional incentive to innovate that is required to compensate for the resulting restraint in the transfer of technology. From a bargain theory perspective, without local working requirements, it is questionable whether developing countries receive any fresh consideration in exchange for strengthening IPRs to meet the standards set by TRIPS.

Accordingly, to justify patent rights under the utilitarian or bargain theory requires providing developing countries with the flexibility under TRIPS to legislate local working requirements. Such a result makes sense. It seems unnecessary and counter-productive for every country to adopt similar IPR standards. Many of today's economic leaders greatly benefited from unrestricted transfer of technology in the past, and developing countries have an interest in and should be afforded similarly favorable conditions to promote their development.¹²⁹ As noted by a manufacturer from Switzerland during a Swiss patent congress, "Our industries owe their current state of development to what we have borrowed from foreign countries. If this constitutes theft, then all our manufacturers are thieves."¹³⁰

¹²⁷ See, e.g., Ragavan, *supra* note 8.

¹²⁸ WIPO, *supra* note 49.

¹²⁹ Gerster, *supra* note 82 at 4.

¹³⁰ *Ibid* at 5.