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ANALYSIS OF INTELLECTUAL PROPERTY ISSUES

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Patent Fairness and International Justice

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Persistent patent controversies

In 2002, Hugh Laddie lamented the “blind adherence to dogma” that had led to an apparent impasse in philosophical and practical discussions of intellectual property (IP):

“On the one side, the developed world side, there exists a lobby of those who believe that all IPRs [intellectual property rights] are good for business, benefit the public at large, and act as catalysts for technical progress. They believe and argue that, if IPRs are good, more IPRs must be better.”¹

But “on the other side”, he continued:

“there exists a vociferous lobby of those who believe that IPRs are likely to cripple the development of local industry and technology, will harm the local population, and benefit none but the developed world. They believe and argue that, if IPRs are bad, the fewer the better.”

Laddie recommended reforms designed to ensure that IPR development and enforcement would better serve the interests of developing countries. He hoped these reforms would provide an effective response to those who regard IPRs as “food for the rich countries and poison for the poor”.²

In 2015 we see the persistence of this disagreement, with critics urging that the international IPR regime, including especially the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), creates an un-level playing field for international commerce, tilting the advantage strongly towards the interests of the developed world and against the interests of developing nations. Similar concerns have been raised with respect to the IP chapter of the Trans-Pacific Partnership Agreement, which includes and reinforces many of the same provisions people have found objectionable in TRIPs. Aaron James has recently argued that the only appropriate remedy is to “eviscerate TRIPs”. He urges that we need to weaken IPRs in order to reduce the level of unfair competition faced by developing nations.³ At the same time, articulate advocates argue that IPRs are a crucial incentive for research and technological development, which is otherwise woefully undersupplied by the market. In order to enhance this incentive, Alex Rosenberg argues that we should treat “the ownership of intellectual property as a right ... which is untrumpable by any other sort of consideration from human welfare”.⁴ According to Rosenberg, the value

* I would like to thank Daniel Pilchman and Peter Yu for tremendously helpful comments and discussion of this project.

¹ Hugh Laddie, “Foreword” in Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy: Report of the Commission on Intellectual Property Rights* (London, 2002), p.iii.

² Laddie, “Foreword” in Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy* (2002), p.iv.

³ Aaron James, *Fairness in Practice* (Oxford: Oxford University Press, 2012), p.285. See also Ali M. Nizamuddin, *The Patenting of Life, Limiting Liberty, and the Corporate Pursuit of Seeds* (New York: Lexington Books, 2015).

⁴ Alex Rosenberg, “Designing a Successor to the Patent as Second Best Solution to the Problem of Optimal Provision of Good Ideas” in Annabelle Lever (ed.), *New Frontiers in the Philosophy of Intellectual Property* (New York: Cambridge University Press, 2014); Alex Rosenberg, “The Priority of Intellectual Property Rights” (2004) 3 Pol., Phil. & Econ. 77.

created by IP incentives should be expected to swamp the incidental disvalues associated with the enforcement of IPRs. Rosenberg might be read as advising that IPRs should be *as strong as possible*.

In this brief article, I cannot address all of the arguments that have been aired, nor put the controversies to rest. What I will do is to examine some of the more prevalent philosophical and legal arguments on both sides and urge a partial solution. I will give most of my attention to patents, but the argument developed here should apply to other forms of IP as well.

The case for patents: From simple economic logic to robust (natural?) moral rights

The simple argument

The economics of patent law, in the simplest case, are straightforward: In the absence of effective IPRs, market forces provide systematic sub-optimal incentives for creative work, including inadequate incentive to pursue the research necessary for the development of new technologies. There are several reasons for this: new technologies benefit future generations, whose interests are not fully represented in contemporary market incentives. As Alex Rosenberg points out, “discovering and testing good ideas is costly and risky”.⁵ It may sometimes take 10–15 years and millions of dollars from the time researchers begin to develop a new drug, or a new agricultural crop, before it is ready to market.⁶ On the other hand, for many products, including software and non-hybrid crop varieties, the cost of reproduction after a new item has come on the market, is very low. In the absence of patent protection, much research and development simply would not take place. The likelihood that welfare-enhancing research will take place is less when research costs are high and where the private benefits to the researcher are insecure. The patent system provides patent holders with a temporary right to prevent other people from marketing new innovations. Possession of this right protects and incentivises the process of research and development, leading to the creation of new technologies that would not have existed at all if the patent incentive had not been available. Call this the *simple argument* for patent protection.

So understood, do patents make people worse off—impose a welfare cost—because they prevent people from accessing needed innovation? According to the simple argument, the answer is *no*, because the technologies in question would not have existed but for the incentive created by IPRs. While patents temporarily restrict their access to new technologies, including life-saving medicines, the people whose access is restricted and who need these drugs would not have access to them in the absence of patent protection. No one else would have access either. Without patents, the research would not have been pursued. Without the research, the products would not have been created.

When patents work this way, the implementation of a patent system is a Pareto improvement: it provides advantages for some and disadvantages for no one. This is the understanding of patent law according to which patents add “the fuel of interest to the fire of genius, in the discovery and production of new and useful things”, as Abraham Lincoln enthusiastically argued.⁷ So on this model, patents and other IPRs enhance welfare directly. Where IPRs are welfare-enhancing and disadvantageous to no one, there are good moral reasons to put them in place.

This instrumental case for patents, as a needed extra incentive, may gain strength at times and in circumstances where we have an especially pressing need for innovation. There is wide agreement that we need alternative environmentally appropriate sources of energy. Climate change may significantly alter the circumstances of agriculture and may increase incidence of certain diseases. Farmers in Bangladesh,

⁵ Rosenberg, “Designing a Successor to the Patent as Second Best Solution to the Problem of Optimal Provision of Good Ideas” in Lever (ed.), *New Frontiers in the Philosophy of Intellectual Property* (2014), p.89.

⁶ Edmund J. Sease and Robert A. Hodgson, “Plants are Properly Patentable under Prevailing U.S. Law and This Is Good Public Policy” (2006) 11 *Drake J. Agric. L.* 327.

⁷ Abraham Lincoln, “Second Lecture on Discoveries and Inventions” in Jacksonville, Illinois, February 11, 1859.

facing increasing floods and salt-water intrusion in agricultural areas, have a pressing need for flood-tolerant and salt-tolerant crops, some of which are already under development. In other areas, sub-Saharan Africa in particular, there is a similarly urgent and growing need for drought-tolerant food crops. Resource depletion makes it less and less likely that future generations will be able to rely on the same technologies that have been used in the past and that have supported our current standard of living.⁸ If we hope to leave later generations with productive opportunities similar to those of the present generation—or, in the words of John Rawls, to leave to future generations “a social world that makes possible a worthwhile life for all its citizens”—then we will need to replace existing technologies with new ones and to find substitutes for the resources we have plundered.⁹ For these reasons, our obligations to future generations give us a secondary obligation to promote needed innovations. Patent and other IP protections may be at least one way we could fulfil that obligation.

Jefferson on the simple argument

The “simple argument for patents” was accepted, more or less as stated above, by Thomas Jefferson, who famously argued that there is no *natural* right to IP:

“It has been pretended ... that inventors have a natural and exclusive right to their inventions. ... If nature has made any one thing less susceptible than others of exclusive property, it is the action of the thinking power called an idea. Its peculiar character ... is that no one possesses less because every other possesses the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine receives light without darkening me.”¹⁰

According to Jefferson, following Locke in this respect, property rights in land and real property were natural rights. The *purpose* of government is to secure these rights, so any government that fails to protect and respect them thereby wrongs its citizens. But not so with IP: Jefferson argues that IP is naturally free and available to everyone, since one person’s use of it does not block use by others. So in Jefferson’s view, the reason for protecting IPRs is that it is advantageous. But no one is wronged if IPR protection is not put in place:

“Society may give an exclusive right to the profits arising from [creative inventions] as an encouragement to pursue ideas which may produce utility, but this may or may not be done, according to the will and convenience of the society, without claim or complaint from anybody.”¹¹

IPRs as natural moral rights?

But is Jefferson’s view acceptable? A contrary view would hold that inventors have a special claim over their own creations, one that is different from the claims others may have. This thought may derive in part from the work of John Locke. Locke accepted a doctrine of “Maker’s Right”, according to which “Makers”, those who create something new, have special claims over their creations.¹² While Locke does not clearly extend this doctrine to the case of IP, such an extension seems natural since intellectual creations come *from* us in a more direct way than physical objects on which we may labour. The Maker’s Right argument

⁸ I do not mean to imply that all members of the present generation enjoy a reasonable standard of living.

⁹ John Rawls argues that we have an obligation to leave future generations with “a social world that makes possible a worthwhile life for all its citizens”. John Rawls, *The Law of Peoples* (Cambridge: Harvard University Press, 1999), p.107. Bryan Barry argues that the present generation has an obligation to leave future generations with undiminished productive opportunities. Bryan Barry, *Democracy, Power, and Justice* (Oxford: Clarendon Press, 1989), p.517.

¹⁰ Letter from Thomas Jefferson to Isaac McPherson, August 13, 1813.

¹¹ Letter from Jefferson to McPherson, 1813. See also Adam Moore, *Intellectual Property and Information Control* (New Brunswick: Transaction Publishers, 2006), Ch.3; Seana Shiffrin, “Lockean Arguments for Private Intellectual Property” in Stephen R. Munzer (ed.), *New Essays in the Legal and Political Theory of Property* (New York: Cambridge University Press, 2001).

¹² Gopal Sreenivasan, *Limits of Lockean Rights in Property* (New York: Oxford University Press, 1995), pp.66–74.

appears to be stronger where it is more plausible to regard the Maker as fully responsible for the existence of the creative product. In Locke's view, this doctrine is arguably more fundamental than the standard argument from "labour mixing". Making is a form of labour. According to Locke, labour—more properly, labour-mixing—is the operation by which people legitimately appropriate land or other goods from the common, at least where they leave "enough and as good" for others and avoid appropriating more than we can use before it spoils. The reason, Locke urges, is that it "hath by this labor something annexed to it that excludes the common right of other men".¹³ It is a small stretch to think that intellectual creations are similarly associated with those responsible for their creation—and that they have "something annexed" to them that distinguishes the claim of creators from the competing claims of non-creator users.¹⁴

Does this unique relationship between intellectual creations and their maker-creators justify a claim that "excludes the common right of other men?" The plant breeder Luther Burbank seems initially to have agreed with Jefferson that it does not. Early in his career, he expressed satisfaction about the fact that patent and other IP protections were not available for work in plant science:

"No patents can be obtained on any improvements of plants, and I for one am glad that is so. The reward is in the joy of having done good work, and the impotent envy and jealousy of those who know nothing of the labor and sacrifices necessary, and who are by nature and cultivation kickers rather than lifters."¹⁵

Many years later, after spending his life developing new plant varieties in an economic environment where he was often unable to make a profit to cover the costs of research and development, Burbank seems to have found less solace in the impotent envy of the kickers. In a letter to his friend Paul Stark, Burbank is reported to have written:

"I despair of anything being done at present to secure to the plant breeder any adequate returns for his enormous outlays of energy and money. A man can patent a mousetrap or copyright a nasty song, but if he gives the world a new fruit that will add millions to the value of the earth's annual harvests he will be fortunate if he is rewarded so much as having his name connected with the result. Though the surface of plant experimentation has thus far been only scratched and there is so much immeasurably important work to be done in this line, I would hesitate to advise a young man, no matter how gifted or devoted, to adopt plant breeding as a life work until America takes some action to protect his unquestioned right to some benefit from his achievements."¹⁶

The argument in this letter was apparently given great weight when it was introduced by Representative Purcell as a consideration in favour of the Plant Protection Act of 1930. Whether or not the words are truly those of Luther Burbank,¹⁷ the argument has independent appeal: should people like Burbank not be

¹³ John Locke, *Second Treatise of Government* (1689) in Peter Laslett (ed.), *Locke's Two Treatises of Government* (New York: Cambridge University Press, 1960), p.329.

¹⁴ Seana Shiffrin offers quite a different, and much more detailed, analysis of Lockean rights to intellectual property in her excellent paper, "Lockean Arguments for Private Intellectual Property" in Munzer (ed.), *New Essays in the Legal and Political Theory of Property* (2001).

¹⁵ Luther Burbank, "How to Judge Horticultural Novelities", *Pacific Rural Press*, September 30, 1911, p.264. See also Clark Wolf, "Plants, Patents, Property, and Pirates: Luther Burbank v. Thomas Jefferson" (2007) 9(1) *Bioethics in Brief*, available at http://www.biotech.iastate.edu/publications/bioethics_outreach/Bioethics_in_Brief/mar07.html [Accessed November 4, 2015].

¹⁶ Letter from Luther Burbank to Paul Stark, quoted by Rep. Purcell reading a telegram received from the widow of Luther Burbank, H.R. Rep. No.1129, 71st Cong., 2d Sess. (1930). This letter is widely quoted, for example, in David Ronald Murray, *Seeds of Concern: The Genetic Modification of Plants* (Wallingford: CABI Publishing, 2003), p.101; Mark Sagoff, "Animals as Inventions: Biotechnology and Intellectual Property Rights" in Lakshman D. Guruswamy and Jeffrey A. McNeely (eds), *The Protection of Global Biodiversity: Converging Strategies* (Durham: Duke University Press, 1998); Jack Wilson, "Patenting Organisms: Intellectual Property Law Meets Biology" in David Magnus, Arthur L. Caplan and Glenn McGee (eds), *Who Owns Life?* (New York: Prometheus Books, 2002).

¹⁷ It is interesting to note, however, that Burbank's letter turned up at an opportune moment: Burbank's earlier words were introduced in discussion as a reason against the Plant Protection Act of 1930. This letter may have been the key that turned the rhetorical tide in the congressional debate and made the act's passage possible. Representative Purcell apparently aired this quote during the House debate, but did not produce the letter itself. For understandable reasons, Luther Burbank's widow, Purcell's source for the letter, might be expected to have favoured increased protection for plant varieties. Since the only sources for this letter are *partial* sources, since the letter appeared at a moment when it perfectly served the political needs of

able to gain profit from the beneficial products they develop? Even now many people regularly use and enjoy various varieties developed by Burbank over the course of his life. Burbank sold the rights to the Burbank Potato for \$150. They are now the most widely produced potatoes in the United States.

Burbank's letter includes an argument by analogy: If you can get IP protection for *other* kinds of creative work, why exclude plants? The reason that had been given for the exclusion was that plants are self-reproducing. They reproduce and distribute *themselves*. But legislation protecting plant breeders sought to accommodate that feature, rather than use it as ground to deny protection altogether. There is still vigorous disagreement about whether this effort was successful.

When Burbank's letter refers to a plant breeder's "unquestioned right to some benefit from his achievements", the right referenced cannot be a *legal* right. If the sentence makes sense, it must refer to a *moral* or *natural* right. And if we find appealing the idea that plant breeders like Burbank, who devote their lives and fortunes to the development of new varieties, should have a right to benefit from this achievement, we might say that the strength of this appeal is a measure of the attractiveness of the idea that creators do, *pace* Jefferson, have a natural moral claim to the things they create. This idea is embedded in several areas of IP jurisprudence. It may have its greatest appeal for intellectual products in which the creator has invested personal or artistic commitment, where it is sometimes identified as a *personality interest* in intellectual products. If *you*, the reader, find this notion appealing, as many do, then *you* are committed (to at least some degree) to the idea that creators have a natural moral right to control their creations.¹⁸

Should we be uncomfortable with the language of natural rights? Such rights need not be interpreted theologically (as Locke's rights that are "granted by God") or as having deep metaphysical underpinnings (as Kant's metaphysical doctrine of Right). We might simply understand them in terms of reasons: If we find, after critical self-reflection, that we accept principles that imply a moral claim on the part of creators to the objects they create—a claim that is different from the claims non-creators might make—then this supports at least a *prima facie* case in favour of such a moral claim. A "moral right of creators over their creations" might simply refer to a valid claim that creators have over their creative products, a claim that can be distinguished from the competing claims of non-creators.¹⁹ The existence of such a valid claim will not settle questions about its moral weight and significance, or how it will fare when it comes up against the competing claims of others. In sum, the view that claims to intellectual creations are moral or natural, in a sense, does not imply that the associated rights are absolute. Nor does it immediately imply that these claims should be secured by law. Nonetheless, the idea that "creators have special claims to the objects they create" undoubtedly accounts for part of the practical moral appeal of IP protection.

These are not, of course, the only moral arguments for patent and other IPRs, but I believe that they are the principal ones. The weight and significance—I would say, the *moral* weight and significance—of IPRs will depend on the strength of the arguments that constitute the strongest reasons for putting these rights in place, but also on the weight and significance of other rights and interests with which IPRs sometimes conflict. Moreover, IPRs may have different moral significance in international contexts than they do in domestic law. This different significance will be salient if efforts to strengthen IPRs and to harmonise international IP regulations have disparate effects on nations that are at different stages of development.

those who introduced it and since there is (to my knowledge) no record of the original, it seems reasonable to question whether these are truly the words of Luther Burbank. The *argument* contained in them, however, should in any case be evaluated independently.

¹⁸ It may be appropriate to identify *moral rights* that are typically regarded to be included as part of IPRs as having an association with the idea of "makers' right". For an engaging discussion of the moral aspect of IPRs, see Peter K. Yu, "Moral Rights 2.0" (2014) 1 Tex. A&M L. Rev. 873. See also Justin Hughes, "The Philosophy of Intellectual Property" (1988) 77 Geo. L.J. 287.

¹⁹ The view that valid claims are rights has been articulately defended by Joel Feinberg, "In Defense of Moral Rights: Their Bare Existence (1990)" in *Freedom and Fulfillment* (Princeton: Princeton University Press, 1992).

Patent critics

A spurious critique?

Those who are in the grip of the *simple economic argument for patents* may wonder at objections raised by critics. If patents call into existence valuable and necessary new technologies that would not have existed otherwise, how can we grudge patent holders their temporary monopoly? Some critics simply seem to have missed the point. Vandana Shiva writes:

“Central to the ideology of IPRs is this fallacy ... that people are creative only if they can make profits and such profits are guaranteed through IPR protection. This negates the scientific creativity of those not spurred by the search for profits, i.e., the majority of scientists in universities and public research systems. It negates the creativity of traditional societies and the modern scientific community in which free exchange of ideas is the very condition for creativity, not the anti-thesis.”²⁰

This fallacy, argues Shiva, is the source of the “myth” that patents stimulate creativity. But no such fallacious claim is involved in the simple argument for patents. Patent advocates need not and do not deny that people can be and are creative in the absence of a patent incentive. But they also hold, reasonably, that *some* forms of valuable research will not take place unless people have an additional incentive. When research involves serious time and expense, those who pursue it must have a reasonable expectation that they will be able to earn back the costs of research and development. In addition, patent advocates also hope that *more* research will take place when people have a profit incentive in addition to the other motives that regularly lead people to pursue creative work.

Even without patent protection, Luther Burbank worked a lifetime to develop new valuable plant varieties. But where technological development is very expensive in time and money, it is less likely that it will be pursued if developers cannot expect proprietary rights in their product. In the case of valuable drugs or crops, for example, where production time may be more than a decade and may cost millions of dollars, it is less likely that work will be undertaken in the absence of patent protection.

Orphaned drugs and crops

Pace Shiva, there is further evidence that IP protections spur innovation: Why have more research dollars been poured into remedies for erectile dysfunction and baldness, while fewer have gone to “orphaned” diseases like cholera and malaria? The reason is that people who have cholera and malaria are *poor*, so the profit incentive does not work. You cannot make much money serving the interests of people who cannot afford to pay. For those diseases, there are crucial reasons of compassion, justice and pure scientific curiosity, all of which motivate dedicated researchers to look for ways to improve the lives of those who suffer from them. But the research dollars are not there because there are few profit-making opportunities associated with these orphaned diseases. The case is similar for orphaned crops (like manioc) and other crop varieties that would serve the poor (like drought and flood-tolerant rice varieties). Important and potentially life-saving work has been done on orphaned products that serve the poor. But the reason *less* has been done is that investment firms reason that they will do better for their shareholders if they invest in projects that will serve a paying customer base. As so often is the case, poor people are simply left out, and their urgent needs go unmet while market funded research follows relatively trivial wants of wealthier consumers. The relevant conclusion is not that patents do not spur welfare-enhancing innovation, but that they do not effectively motivate innovations that would specifically benefit those who are most needy.

²⁰ Vandana Shiva, *Protect or Plunder? Understanding Intellectual Property Rights* (New York: Zed Books, 2001), p.25.

Further reservations about patents: Trolls, pirates and thickets

Orphaned drugs and crops are not the only, or the most important, problem with patents, and the incentive system they create. Critics have identified even more serious reasons why patents raise problems, in both domestic and international contexts. In short, patents do not always work in the way the *simple argument* suggests. While the *simple argument* implies that patents increase the rate of innovation, well-known cases show patent holders can *shut down* further innovation once they possess an exclusive right.²¹ Monopoly holders have a motive to block competitors even when they have no intention to develop the innovation independently.²² These are not mere hypotheticals: In one widely discussed case, Summit Technology and VISX, both of which held key patents involved in laser eye surgery, formed a partnership to manage their joint property in a way that gave them a de facto “veto over any attempt by the other to license technology to third parties, effectively eliminating competition between them to offer such licenses”.²³ In other cases, patents have been used to assert exclusive private rights over intellectual resources that should properly have been recognised as common property, available for everyone to use. In another notorious case, Larry Proctor filed a patent for what he called the “Enola bean”, identified by colour and species. This patent gave Proctor exclusive marketing rights for yellow beans of the species *phaseolus vulgaris*, which had been in use in Mexico for hundreds of years. Proctor *asserted* these rights by sending cease-and-desist orders to importers who had been bringing yellow Mayacoba beans to the United States from Mexico since long before Proctor’s patent was issued. Proctor’s patent was widely discussed and decried and has since been revoked. But the problem remains: the existence of the patent system gives people an incentive to claim private rights over resources that should properly remain in the commons.²⁴

The problems patents sometimes create are exacerbated if companies are able to *extend* their patents beyond the normal period during which they can legitimately be enforced. There are several means for “evergreening” patents—for example, by filing a new patent that covers subject matter that is, conceptually, *right next to* the subject matter over which an older patent is about to expire. When patent holders manage to extend their claims beyond the normal life of a patent, they are, in effect, asserting a private right in subject matter that should properly move into the commons. Finally, as Tony Smith points out, patents must be *defended*, and the expenditure necessary for such protection undermines the net value of the IP. This has unfortunate economic effects, since larger companies are in a better position to manage the legal costs associated with litigation. “[A]s a result”, writes Smith, large companies “are increasingly able to subordinate small innovating companies in emerging sectors, choking economic dynamism.”²⁵

There is wide agreement that patents can be misused to slow innovation, privatise common property, choke competition and squeeze money and profitability out of otherwise dynamic companies. There is also wide, though not universal, agreement that patents generate a profit motive that spurs innovation and that much of the research that takes place would not have been pursued but for the promise of IP protection at the end of the process. These two competing truths constitute the background for the debate described by Hugh Laddie, referenced at the beginning of this article.

Perhaps the debate between critics and defenders of patent can be associated with an underlying disagreement about the *extent* to which patents create technology, versus the extent to which they generate perverse incentives and undermine innovation. Defenders tend to dismiss the problems as incidental and

²¹ Adam Jaffe and Josh Lerner cite numerous cases in *Innovation and Its Discontents* (Princeton: Princeton University Press, 2004). Notably, they discuss the case of the Wright brothers, who used their patents to obstruct further development of airplane technology.

²² Tony Smith makes this point in “The End of One American Century ... and the Beginning of Another?” in Richard Westra, Dennis Badeen and Robert Albritton (eds), *The Future of Capitalism after the Financial Crisis: The Varieties of Capitalism Debate in the Age of Austerity* (New York: Routledge, 2015), pp.89–90.

²³ Adam Jaffe and Josh Lerner, *Innovation and Its Discontents* (2004), p.61.

²⁴ Boyle sees many contemporary changes in IP law as efforts to privatise or “enclose” what has been (and should be?) common property. James Boyle, “The Second Enclosure Movement and the Construction of the Public Domain” (Winter/Spring 2003) 66 L. & Contemp. Probs. 33.

²⁵ Smith, “The End of One American Century ... and the Beginning of Another?” in Westra, Badeen and Albritton (eds), *The Future of Capitalism after the Financial Crisis* (2015), pp.89–90.

infrequent side effects of a system that is effective overall. Critics tend to see the problems as pervasive and structural, as aspects of an overall system that advantages some at cost to others. Could we reduce this disagreement to an empirical question if we had some way to measure and compare costs and benefits of alternative IP protection regimes? This brief article cannot accomplish such a comparison. Instead, I will examine a specific argument by critics who urge that the globalisation of patent and other IP protection is unfair because of disparate effects on developed versus developing nations.

Fairness and international justice

There is a widespread perception that IP rules in general, and globalised IP rules in particular, are disadvantageous to less developed countries. One face of this disadvantage is seen in the view that IP incentives are not an effective way to provide welfare-enhancing and health-enhancing technologies that will serve poor people. Some policy proposals seek to address this gap either by providing an additional market incentive for research that is likely to have widespread humanitarian benefits.²⁶ Such proposals would not constitute a *replacement* for patent and other traditional IP institutions; they are rather a *supplement*, designed to spur innovation in needed areas or to make innovation public as a means to facilitate access.

IPRs and international fairness

Another face of the argument that patents are disadvantageous to countries in the global South is the perception that patent and other IP rules are internationally *unfair*. The charge is that stronger IP protection creates an advantage for developed nations, but imposes costs on developing nations. Aaron James makes this case in a recent book on globalisation and international fairness:

“IP rules tend to slow economic development. They transfer resources from developing countries to rich-country authors, away from where they do the most good. They slow the transfer of technologies to developing countries—one of the chief benefits of trade—by making it more expensive. They limit the imitative innovation that was crucial for advanced countries when they industrialized, as well as the policy flexibility that has been a hallmark of almost every development success story.”²⁷

James is especially concerned that efforts to *strengthen* or *harmonise* international IP rules will have these disproportionate deleterious effects on developing nations. According to James, the most important argument in favour of strong and internationally harmonised IP protections is that such protections create circumstances of *fair competition*, since otherwise innovative firms would face unfair competition from competitors who could take advantage of their technology without ever incurring the cost of innovation—perhaps by reverse engineering or cheaply reproducing their products. But, as he urges, this argument from *fair competition* fails because international markets are already tilted in ways that systematically advantage people in developed nations. IP harmonisation, then, is not a path to fairness, but just another way to provide additional benefits for those who already have unfair advantages.²⁸

²⁶ E.g. Thomas Pogge, “Human Rights and Global Health: A Research Program” (2005) 36 *Metaphilosophy* 182; Thomas Pogge, “Intellectual Property Rights and Access to Essential Medicines”, available at <http://siteresources.worldbank.org/INTDECINEQ/Resources/IntellectualPropRts.pdf> [Accessed November 4, 2015]. In association with his proposal, Pogge has initiated the Health Impact Fund (<http://healthimpactfund.org/>), which seeks to implement evidenced-based rewards for innovations that are expected to bring global health gains. In a similar vein, Michael Kremer also suggested prizes and buyouts for valuable innovations. Michael Kremer, “Patent Buyouts: A Mechanism for Encouraging Innovation” (1998) 113 Q.J. Econ. 1137. See also James Love and Tim Hubbard, “The Big Idea: Prizes to Stimulate R&D for New Medicines” (2007) 82 Chi.-Kent L. Rev. 1519; J.E. Stiglitz, “Scrooge and Intellectual Property Rights” (2006) 333 British Med. J. 1279. Pogge’s argument is sometimes wrongly taken as an argument for the view that patents on essential medicines are inappropriate or morally impermissible. For an argument against this strong view, see Jorn Sonderholm, “A Critique of the Argument against Patent Rights for Essential Medicines” (2014) 7 *Ethics & Global Pol.* 119.

²⁷ James, *Fairness in Practice* (2012), pp.287–288.

²⁸ It is worth noting that it is companies and patent holders that are in direct competition in IP markets, not nations. James recognises this in *Fairness in Practice* (2012), p.299.

Even more importantly, harmonised rules make it more difficult for nations to adjust policy so that it can more effectively promote nationally relevant goals. Consider the predicament of Greece during the 2015 financial crisis: many commentators have urged that Greece would have been better if it had never joined the EU currency union, but had instead kept its own domestic currency, the drachma. If Greece had kept the drachma, it could have promoted local economic activity by reducing the value of its domestic currency, which would be predicted to increase international investment and international purchase of Greek products. In a similar vein, it will be sometimes advantageous for nations to develop IP rules that serve national goals, rather than subsuming those goals under the umbrella of international harmonisation or consistency.²⁹ In sum, it is not at all obvious that the growing trend towards international harmonisation of IP rules will advantage developing nations.

In this regard, it is noteworthy that there is another intertemporal issue of fairness at play: Like other industrialised nations, the United States grew its own industrial power by flouting IP rules and using domestic patent protection to promote the importation of technologies needed for the economic development of a new nation. The policies undertaken by the United States in the early decades of its existence would now be regarded by many as a form of piracy. Can it be fair for the United States and other developed nations to deny presently developing nations from employing a strategy that the United States enthusiastically used when it was undergoing the process of economic development?³⁰

In the absence of strong internationally harmonised IP protections, new technologies and medicines could be available for free, or at least without licensure costs, to people who need them most. This *spillover* value has sometimes been celebrated as a key advantage of domestic IP protections.³¹ Because developed nations typically have better research infrastructure in place, most patents are held by firms and individuals in developed nations. But for key advances in medicine, crop development and other technologies, the people who would benefit most from access are poor people in developed nations. William Haddad, writing in the *Bulletin of the World Health Organization*, expresses concern that international patent harmonisation “could have a devastating impact” on the ability of developing countries to access “essential medicines, diagnostics, and vaccines”.³² In developing nations, the same case might be made for the need for sustainable and appropriate crop varieties that can thrive in changing environmental conditions: in the worst case, IP protections may prevent needed technologies from getting to those who need them most urgently.

Does the *simple argument* for patents provide a response to this objection?³³ According to the *simple argument*, the drugs, crops and new technologies in question would not have existed at all, but for the IP protections that restrict access to them. This may not be the case, however, in contexts where multiple investigators were independently working on the same project, and the protection is gained by the group that succeeded first. More importantly, there is no reason to believe that IP protections that deny access to *poor* people are optimally welfare-enhancing. As noted earlier, people without access to capital are not the intended target for new profit-driven innovation efforts because they are not a lucrative market. The other side of this argument is that not much *loss* is incurred when poor people are provided with new technologies without licensure payments. Since poor people were not the intended market, it may be possible to weaken IP protections in ways that serve them without undermining the incentive effect of patent protection. This thought will be carried further in the final section of this article.

²⁹ In this spirit, John Duffy argues in favour of *diversity* of patent rules. John F. Duffy, “Harmony and Diversity in Global Patent Law” (2002) 17 Berkeley Tech. L.J. 685.

³⁰ This point is eloquently made in Doron S. Ben-Atar, *Trade Secrets: Intellectual Piracy and the Origins of American Industrial Power* (New Haven: Yale University Press, 2004).

³¹ Sergio Lence and Dermot Hayes examine the welfare benefits of IP spillover effects in Sergio H. Lence and Dermot J. Hayes, “Welfare Impacts of Cross-Country Spillovers in Agricultural Research” (2007) Iowa State University, Working Paper No.07-WP-446.

³² William Haddad, “Rich and Poor Countries Divided on Patent Treaty” (2006) 84 Bull. World Health Org. 337.

³³ As I read Aaron James’s otherwise excellent discussion of intellectual property, he does not properly present the *simple argument*, as I have called it here, among the arguments he considers in support of international patent harmonisation. He does consider the argument from utility (or welfare), but his discussion is too quick and dismissive.

IPRs as trumps?

In considering proposals to *weaken* IP protection, we must consider the argument of Alex Rosenberg, who has urged that international harmonisation of IP rules is essential for effective patent protection:

“The absence of an internationally enforceable patent right is close to the same as no patent right at all. This consequence follows from the difficulty of effective excludability in consumption of good ideas. When the cost of copying a piece of software became only slightly more than the price of a floppy disk, excluding non-purchasers from access to the good rests on the willingness of purchasers or their agents to refrain from reselling or giving away a non-rivalrous good. It is well known that no such willingness can be relied on and that consequently protection afforded by nationally enforceable patents is quite inadequate. When the ease and undetectability of copying good ideas dropped further, owing to the availability of high bandwidth to transmit digital copies of information, these protections become non-existent.”³⁴

According to Rosenberg, innovation is the most important long-term factor contributing to human welfare. IPRs, therefore, should not be “trumpable” (or overridable) by any non-IPR welfare considerations. Enforcement of IPRs enacts our obligation to protect the welfare of future generations, since the long- and medium-run welfare interests in innovation, Rosenberg argues, will swamp the short-term benefits we might gain by temporarily overriding IPRs.

Without discussing all of the details of his argument, it is worth recognising that Rosenberg assumes, in the ideal case, that the relationship between strong IPRs and increased innovation is a strictly increasing function. As noted above, there are reasons to doubt this: inappropriately structured IPRs may actually *stifle* innovation as they are made stronger—for example, when they can be used to quash unwanted competition by firms that would otherwise be more efficient producers of products and ideas. It is important, in this context, that such anticompetitive practices can quash innovation as well as preventing market competitors from undercutting the market price of the patented item. Strengthening IPRs will not always increase the rate of innovation, and weakening IPRs will not always reduce the rate of innovation: weakening the research exemption for IPRs would make IPRs stronger, but there are good reasons to expect that a research exemption should promote, not undermine, build-on innovation. Rosenberg’s argument also tendentially assumes that increasing the innovation incentive will not have diminishing marginal value as we increase the strength of IPRs. If it does have diminishing marginal value, then there will be a point when alternative welfare-enhancing opportunities will be more efficient. The appropriate conclusion to draw, then, is, if other parts of Rosenberg’s argument are accepted, we should maximally protect and incentivise innovation whenever alternative welfare-enhancing opportunities are less efficient. IPRs should then be structured to do this most effectively.

Should we accept other aspects of Rosenberg’s argument? I must confess to doubts that the value of IPRs will always trump other welfare-enhancing ways we might spend development dollars, and even more serious doubts that such a thing could be known or shown *a priori*.³⁵ Rosenberg makes a very strong case for the crucial importance of innovation, and the necessity of innovation if we wish to promote long- and middle-term human welfare. Even if one were to accept a somewhat weaker version of Rosenberg’s view, there appears to be excellent reasons to give IPRs high priority—higher than they usually receive—when comparing their significance with other welfare-enhancing policy opportunities.

³⁴ Rosenberg, “Designing a Successor to the Patent as Second Best Solution to the Problem of Optimal Provision of Good Ideas” in Lever (ed.), *New Frontiers in the Philosophy of Intellectual Property* (2014), pp.90–91, fn.2. See also Rosenberg, “The Priority of Intellectual Property Rights” (2004) 3 *Pol., Phil. & Econ.* 77.

³⁵ I am uncertain that this is properly an implication of Rosenberg’s argument, but a 2005 discussion of Rosenberg’s work on this topic with Julian LaMont led me to believe so.

Conclusion and policy implications

Stronger IPRs will not always increase the incentive for technological development. The clearest example of this, perhaps, is the research exemption: to allow researchers to use patented subject matter for purposes of research makes IPRs weaker than they would be if such use were prohibited. But it is unlikely that prohibiting possession of such subject matter *for purposes of research* will significantly undermine the overall incentive to pursue the development of new technologies.³⁶ The goal should not be to maximise the strength of IPRs, but to maximise the incentive effect of IPRs while undermining the ability of IPR holders to use their rights to curtail others' research or to engage in anticompetitive practices. In a similar vein, there may be ways to adjust IPRs to promote development goals without significantly undermining the incentive effect.

I conclude with a modest proposal, which is in the spirit of the discussion above, but which will require more extensive discussion and defence elsewhere.³⁷ Suppose developing nations were to adopt patent rules that forbid enforcement of IPRs where the needed technology serves the poor. Such a rule might stipulate that patented subject matter will be available without licensure for users whose income is less than \$10,000 per year and that domestic patent infringement suits will not be recognised where the annual income of the beneficiary—the person who benefited from the use of the protected subject matter—is less than \$10,000 per year. Such a provision should not be expected to have a serious negative impact on the profitability of patents or to significantly diminish the incentive associated with patent protection. The people served by such a provision are too poor to make patent holders rich. They are not the intended target of market-driven IPR-protected innovation in any case.

Would nations that impose such a rule be subject to lawsuits by patent holders, who are concerned to maintain the strength of their IPRs?³⁸ Such suits could be pursued through the WTO, or perhaps within other emerging enforcement bodies. However, there is reason to think that patent holders will not find it advantageous to pursue such lawsuits: any company that pursued a lawsuit that expressly targeted policies designed to serve the poor would incur significant public relations disadvantages. And perhaps developing nations could successfully defend themselves if a suit were filed: both TRIPs and the Trans-Pacific Partnership include provisions that allow member states to exclude from patentability subject matter that would be contrary to “*ordre public* or morality”. There is a lively debate about what these provisions mean and how they should be interpreted in court. Existing disagreement creates at least some hope that they might be interpreted to allow developing nations to adjust domestic IP policy so that IP legislation can more effectively serve those who most need the technologies IPRs protect.

³⁶ I do not mean to imply that such a weakening of IPRs would not have *some* impact on the research incentive. There are, however, reasons to believe that the benefit to research afforded by this exemption would outweigh the cost. The argument for that claim may not be obvious, but cannot be made here.

³⁷ A slightly more complete defence can be found in Clark Wolf, “Getting New Agricultural Varieties to Those Who Need Them Most” (2015) 17(1) *Bioethics in Brief*, available at <http://www.biotech.iastate.edu/march-2014-bioethics-in-brief-copy-2/> [Accessed November 4, 2015].

³⁸ I thank Daniel Pilchman for pressing this question.