**Hauser Globalization Colloquium Fall 2009:**
**Interdisciplinary Approaches to International Law**

**Professor Ryan Goodman**
Furman Hall 120
Wednesdays 2:00 pm-3:50 pm
(unless otherwise noted)

Schedule of Sessions (subject to modification)

**September 2 -** Professor Andrew Guzman, Boalt Hall, University of Berkeley
(co-author: Prof. Jody Freeman, Harvard Law School)
Topic: "Climate Change and U.S. Interests"
Discussants: Profs. Richard Stewart, NYU, and Ryan Goodman, NYU

**September 16 -** Professor Beth Simmons, Harvard University & NYU Straus Institute
(co-author Prof. Allison Danner, Vanderbilt Univ. School of Law)
Topic: "Credible Commitments and the International Criminal Court"
Discussants: Profs. Jose Alvarez, NYU, and Ryan Goodman, NYU

**September 30 -** Professor Oona Hathaway, Yale Law School
Topic: "Presidential Power over International Law: Restoring the Balance"
Discussants: Profs. Stephen Holmes, NYU, and Ryan Goodman, NYU

**October 7 -** Professors Eyal Benvenisti, Tel Aviv University Faculty of Law; NYU, and George Downs, NYU
Topic: "National Checks that Balance Global Institutions: Judicial Review of International Organizations"
Discussants: Profs. Beth Simmons, Harvard Univ. & NYU Straus Institute, and Ryan Goodman, NYU

**Friday, October 16 -** Professor Gary Bass, Princeton University ***(FH 120, 2-3:50 PM)***
Topic: "Freedom's Battle: The Origins of Humanitarian Intervention"
Discussants: Profs. David Golove, NYU, and Ryan Goodman, NYU

**October 21 -** Professor Kathryn Sikkink, University of Minnesota
Topic:"Explaining the Deterrence Effect of Human Rights Prosecutions"
Discussants: Profs. Philip Alston, NYU, and Ryan Goodman, NYU

**October 28 -** Professor Paul Slovic, University of Oregon
Topic: "Can International Law Stop Genocide When Our Moral Intuitions Fail Us?"
Discussants: Discussants: Dr. Bruce Jones, NYU and Ryan Goodman, NYU

**Friday, November 13 -** Professor James Morrow, University of Michigan ***(FH 120, 2-3:50 PM)***
Topic: "The Laws of War as an International Institution"
Discussants: Profs. Matthew Evangelista, Cornell Univ., Nina Tannenwald, Brown Univ., and Ryan Goodman, NYU

**November 18 -** Professor Robert Keohane, Princeton University
co-authors: Profs. Allen Buchanan, Duke Univ., and Tony Cole, Univ. of Warwick
Topic: "Justice in the Diffusion of Innovation."
Discussants: Profs. Robert Howse, NYU, and Ryan Goodman, NYU

*The Journal of Political Philosophy*

# Justice in the Diffusion of Innovation

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CONTEMPORARY theorists of distributive justice do not make the mistake of thinking that the problem of justice is that of fairly dividing a fixed stock of goods. They acknowledge that what is available to distribute changes as our productive capacities develop, that what is produced and how much is produced are subject, within constraints, to choices that human beings make, and that these choices should be guided by principles of justice. To that extent, their views are at least *consistent* with a remarkable fact about modern society: the prominence of innovation in our lives, especially in the form of new technologies developed through the application of scientific knowledge. Yet the significance of innovation for justice—the opportunities for promoting justice that it creates, and the risks of injustice that it poses—has not been adequately appreciated by theorists of justice.[1]

In section I of this article, we explain why a theory of justice must take the fact of innovation seriously and focus attention on one important problem of justice in innovation: the fact that when powerful innovations do not diffuse widely, but are available only to some, this creates opportunities for domination and exclusion. In section II, we advance a proposal for a new international institution designed to ameliorate this problem. In section III, we strengthen the case for our proposal by comparing it both to the status quo and to a prominent proposal for international institutional change advanced by Thomas Pogge. Section IV explains how our proposal could be integrated into existing international law. Our aim is not to provide a full-blown theory of justice in innovation or a detailed blueprint for its institutional embodiment. Instead, it is to bring innovation to center stage in thinking about justice, to demonstrate that serious efforts to achieve justice in innovation will require institutional innovation, and

[1]An important, though as we shall argue, partial exception is the work of Thomas Pogge in his Patent 2 proposal, which we consider in some detail in section III of this article.

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to stimulate deeper consideration of the issues we address by articulating a concrete institutional proposal.

## I. TOWARD A THEORY OF JUSTICE IN INNOVATION

### A. The Need for an Account of Justice in Innovation

Innovation is significant from the standpoint of justice because it can have either positive or negative effects on justice. Depending on what is created and to whom it becomes available, innovation can worsen existing injustices or create new injustices, or it can lessen existing injustices. Justice in innovation is not restricted to the just distribution of *existing* beneficial innovations for two reasons. First, as the much-discussed case of essential medicines makes clear, the fact that vitally important innovations are *not* occurring can be a concern of justice. Because of lack of market demand in developing countries, medicines that could save the lives of millions of people in these countries, at relatively low cost, may not be developed. If justice implies a human right to healthcare (even of a rather limited sort), this situation is not merely unfortunate, but unjust. Second, if restricted access to important innovations resulted in unjust inequalities of political power or in other forms of wrongful domination, this may contribute to injustices of other sorts.

One final, less obvious connection between justice and innovation is worth considering. In extreme cases the effect of limited access to the innovation would be a concern of justice if those who lacked access were excluded from participation in the most important forms of cooperative interaction. To understand this possibility, consider the much-discussed possibilities of biomedical enhancements of normal human capacities, using an analogy with disability rights. The Americans with Disabilities Act requires that "reasonable accommodation" be made to the special needs of persons with disabilities. For example, in public buildings, such as courthouses, curb brakes and ramps must be provided so that persons in wheelchairs can have access. Suppose that the cumulative effect of a number of biomedical enhancements, including significant enhancements in cognitive capacities and capacities for communication and coordination, was to enable those who had them to interact with other 'enhanced cooperators' in a new, more complex, and extremely productive kind of economic cooperation. If most people became 'enhanced cooperators' but some did not, the unenhanced might be unable to participate, or only able to participate in a minimally competent way, in the most important forms of cooperation in their society. They would in effect be the newly disabled. If the exclusion of people with physical disabilities from important sites of interaction is a matter of justice—a question of their *rights*, not just a matter of charity—then exclusion due to lack of access to powerful innovations would seem to be a matter of justice as well.

Given these possibilities, it is clear that taking the fact of innovation seriously in theorizing about justice requires not only including the products of innovation as subject to principles of just distribution, but also efforts to influence which innovations occur. Such efforts may be needed both to prevent innovations that would worsen existing injustices or create new injustices, and to encourage innovations that would lessen existing injustices. Accordingly, we can define 'justice in innovation' as the conformity of both the distribution of the fruits of the processes of innovation, and of the character of the innovation process itself, to the requirements of justice. Justice in innovation may require a pro-active stance: that is, it may be necessary to shape the innovation process in the name of justice, either to try to avoid the production of justice-degrading new technologies or to harness the innovation process for the purpose of promoting justice.

## B. How Innovation Can Promote Justice

To the extent that thinking about justice has focused on innovation, concern about the negative impact of innovation on justice has been prevalent. Some observers have worried that if biomedical enhancements of normal human capacities become available to some but not all, this will worsen existing injustices. For example, genetic enhancements are likely to be affordable, at least at first, only to those who already benefit from injustices in the distribution of social goods.[2] Similarly, "the digital divide"—the fact that some people lack access to computers—can itself contribute to political and social inequality and may also exacerbate existing injustices in the distribution of other goods, including wealth.

Less attention has been given to the potential of innovation for promoting justice. To correct this imbalance, we offer the following examples of technological innovations that may have significant justice-*promoting* effects. In each case the innovation in question could be seen as promoting justice by reducing unjust advantages that some people enjoy or by empowering individuals so that they can better exercise their rights.

(1) Some cognitive enhancement drugs are most efficacious for the less bright; to the extent that existing social arrangements unfairly disadvantage those with lower intelligence or lower intelligence results in part from socio-economic injustices, making such drugs available to the latter could be justice-promoting.[3] Such pharmaceutical cognitive enhancements might prove more cost-effective than some educational interventions.

[2]See, for example, Francis Fukuyama, *Our Posthuman Future* (New York: Farrar, Straus and Giroux, 2002), pp. 9–10.

[3]Anders Sandberg, Nick Bostrom, "Converging cognitive enhancements," *Annals of the New York Academy of Science*, 1093 (2006), 201–27. Nick Bostrom, "Smart policy: cognitive enhancement in the public interest," *Reshaping the Human Condition: Exploring Human Enhancement*, ed. Leo Zonneveld, Huub Dijstelblowem, and Danielle Ringoir (The Hague/London: Rathenau Institute and British Embassy, Science & Innovation Network, and Parliamentary Office of Science and Technology, 2008), pp. 29–36.

(2) Cheap calculators help "level the playing field" for those who are mathematically challenged, thus reducing injustices that may arise from the ways in which society rewards those with superior math skills, or penalizes those who lack them.
(3) Medical innovations can remove disabilities that interfere with opportunities individuals ought to have as a matter of justice or that prevent them from exercising their rights.
(5) Cell phones allow cheap, rapid coordination of economic and political activities; this can help people to lift themselves out of poverty and enable them to exercise their rights of political participation more effectively.
(6) Internet access to medical information reduces knowledge asymmetries between physicians and patients and this in turn can reduce the risk that patients' rights will be violated.
(7) Cell phone cameras provide checks on police behavior, thus helping to reduce violations of civil and political rights or at least facilitate remedial action when they occur.

### C. Disagreement and Uncertainty About Justice

Each of the preceding six innovations appears to reduce certain *inequalities*, but not all inequalities are *injustices*. To know which inequalities are unjust, and hence whether particular innovations are impacting justice positively or negatively, one needs an account of justice. Theorizing about justice is notoriously afflicted, however, with both disagreement and uncertainty. There is disagreement between consequentalists and deontologists, between proponents of 'positive' rights and libertarians, between egalitarians, prioritarians, and sufficientarians, and among egalitarians as to what the 'currency' of egalitarian justice is (well-being, opportunity for well-being, or resources). In addition, there is uncertainty as to how to move from a given theory's abstract, highest-level principles to lower-level principles with clearer implications for policies and institutions. For example, even if one assumes one knows what the proper principles of distributive justice are for what Rawls calls the basic structure of society, it is not clear which principles of justice should guide particular policies or decisions about rationing scarce medical resources.[4] Given that there is no indication that this disagreement and uncertainty is likely to be resolved in the foreseeable future—how should thinking about justice in innovation proceed? How *can* it proceed in a principled way?

[4]Allen E. Buchanan, "The right to a decent minimum of health care," *Philosophy & Public Affairs*, 13 (1984), 55–78. Normal Daniels, "Justice, health, and healthcare," *The American Journal of Bioethics*, 1 (2001), 2–16. Dan W. Brock, "Ethical issues in the use of cost-effectiveness analysis for the prioritization of health care resources," *Making Choices in Health: WHO Guide to Cost-Effectiveness Analysis*, ed. T. Edejer et al. (Geneva: World Health Organization, 2003), pp. 289–312.

## D. A Provisional Starting-Point: The Injustice of Extreme Deprivation

Most theories of justice converge on the belief that what might be called extreme deprivation is presumptively unjust, at least when it is undeserved and unchosen. People suffer extreme deprivation when they lack adequate food, shelter, safe drinking water, are afflicted with serious preventable diseases, and when their physical security is seriously compromised by the threat of violence, as in the case of civilians in war zones.

We proceed on the assumption that whatever else it should be concerned with, a theory of justice in innovation should treat extreme deprivation as a matter of concern, in two ways: It should provide guidance both for reducing the risk that innovations will produce or exacerbate extreme deprivations and for helping to ensure that the power to innovate will be harnessed to help ameliorate existing extreme deprivations. The strategy is to consider policies regarding innovation that address the concern about extreme deprivation, without waiting for a resolution of the disagreement and uncertainty that characterize current theorizing about justice. Surely there is enough agreement that some harms should be included to allow us begin to grapple with the problem of justice in innovation.

## E. Exclusion and Domination

To focus *only* on extreme deprivation, however, is too restrictive, for reasons already indicated: it overlooks the fact that innovation can be a concern of justice when limited access to innovations results in unjust exclusion or domination. The analogy with disability rights shows that unjust exclusion can occur without severe deprivation and that these are distinct injustices. Even if a person with mobility limitations is not impoverished and leads an otherwise comfortable life, she may rightly complain of injustice if she is barred from access to public buildings.[5]

Political inequalities can also be unjust even when they do not result in extreme deprivation. The fact that women in the U.S. lacked the right to vote until 1920 was an injustice, apart from whatever contribution it made to the extreme deprivation that some women suffered. Similarly, if some innovation in electronic communications conferred advantages in influencing national political processes, in ways that are incompatible with the commitment to broad effective political participation embodied in democratic institutions, this would be an injustice, even if those who were disadvantaged suffered no extreme deprivation.

Some inequalities in political power are inevitable even in the most democratic societies; and some inequalities in political power are not unjust, including those

[5]The Americans with Disabilities Act and the international Convention on the Rights of Persons with Disabilities both recognize this point.

that result from special excellence in the qualities of political leadership. But under modern conditions, in which the State wields such great power over our lives, inequalities in political power have the potential to exacerbate existing injustices and undermine justice where it exists.[6] So political inequality is a proper *concern* of justice even if the people involved are integrated into the society and political inequality is not in itself unjust.[7] Both instrumental considerations grounded in the strategic nature of political inequalities and views according to which political equality is valuable in itself converge on the conclusion that political inequalities are a proper concern of justice, independently of their propensity to create or sustain extreme deprivation. For brevity, we will use the phrase 'basic political and economic inequalities', not to refer to just any unequal distribution but only to (a) seriously unjust inequalities in political power and (b) lack of access to important sites and forms of social cooperation that is of comparable consequence to the exclusion suffered by persons with disabilities in societies that do not take disability rights seriously. Our suggestion is that an account of justice in innovation should not be limited to a concern about extreme deprivation, but should also address the potential impact of innovation on 'basic political and economic inequality' understood in this way.

It could be argued that the impact of innovation on extreme deprivations is a higher priority, from the standpoint of justice, than the impact on basic economic and political inequality. Whether or not that is so may depend upon the resolution of deep disputes in the theory of justice—in particular whether some form of prioritarianism is the correct view. We have already explained why we think it is appropriate to avoid attempts to resolve such disputes before embarking on an attempt to develop a principled practical response to the issues of justice in innovation.

From the standpoint of many persons in developing countries, the main concern about innovation is its potential impact on extreme deprivation, but for most of those who live in developed countries the impact on basic political and economic inequalities may be more pressing. Given that this is so, there are two reasons to include basic economic and political inequality, not just deprivation, in our provisional conception of justice in innovation. First, it is a *legitimate* concern for people generally, regardless of whether they live in

[6]Michael Walzer, *Spheres of Justice: A Defense of Pluralism and Equality* (New York: Basic Books, 1983), ch. 1.

[7]According to some democratic theorists, what might be called basic political equality—having secure standing as an equal participant in the most fundamental political processes in one's society—is itself a requirement of justice, because it is required for a proper public recognition of the equality of citizens. On this view, inequalities in political power that are incompatible with or that tend to undermine this fundamental equality are unjust, independently of their tendency to produce other bad effects, including extreme deprivations, violations of particular civil and political rights, or distributive unfairness. See Thomas Christiano, *The Constitution of Equality: Democratic Authority and Its Limits* (Oxford: Oxford University Press, 2008).

developed or developing countries, even if deprivation is the more serious moral concern. Second, practical thinking about justice in innovation must take the problem of political feasibility seriously, and generally that requires engaging the interests of the better off. An approach to justice in innovation that focuses not only on deprivation but also on basic social and political inequalities is more likely to gain the support of those who are critical for its success.

The threads of the argument thus far can now be pulled together. Because of the prominence of innovation in modern life, thinking about justice should take seriously the potential of innovations both to worsen injustices and to ameliorate them. We begin with undeserved and unchosen severe deprivation, but expand this narrow focus to encompass 'basic political and economic inequalities'—seriously unjust inequalities in political power and exclusion from the most important sites and forms of productive cooperation.

## F. Types of Institutional Strategies

There are three basic types of institutional strategies for the pursuit of justice in innovation: (1) *prohibition* of innovations that would worsen existing injustices or create new injustices; (2) *creation* of innovations to ameliorate existing injustices; and (3) *diffusion* of innovations in order to avoid injustices that would arise from differential access to them or to promote justice by ameliorating or removing existing unjust disadvantages.

### *i. Prohibition*

Voluntary abstention from the development and diffusion of valuable innovations would likely fail, due to familiar free-rider and assurance problems, and is also in tension with the scientific ethos of discovery. Regulation (coercively-backed prohibitions) to try to stop development and/or diffusion of innovations thought to have unjust inequality-increasing effects is hardly more promising, for at least two reasons. First, the innovation process is by its nature highly unpredictable and the effects of an innovation on justice, whether for good or for ill, may be especially hard to predict. Consequently, a coercively-backed prohibition strategy might deprive us of valuable innovations that would turn out to be consistent with the demands of justice or which might even promote justice. Second, if a certain line of research and development is prohibited in one country or regional governance regime (such as the European Union), it is likely to be taken up in less regulated locales, as has happened across a wide range of cases, including gene therapy and human embryonic stem cell research. For a number of reasons, including the lack of regulatory capacity in many countries, an effective, world-wide scheme of regulatory prohibition, while conceivable in principle, is unlikely in the foreseeable future.

*ii. Creation*

There are many examples of private and government efforts to spur innovations of various sorts, such as research grants, government contracts, and public and private prizes. Few of these efforts are explicitly directed toward issues of justice in innovation. An exception may be the U.S. Orphan Drug Act, which provides research grants and extended patent life for drugs developed to treat serious diseases that afflict small numbers of people. One plausible interpretation of the purpose of this legislation is that it is designed to ameliorate the unfairness of a situation in which the direction of drug research and development is determined by market demand rather than need, to the life-threatening disadvantage of those with rare diseases. Several more recent proposals to ameliorate the "essential medicines" problem, including one by the philosopher Thomas Pogge which we consider in detail below, can also be seen as efforts to stimulate the creation of drugs for the purpose of promoting ~~in~~justice.

*iii. Diffusion*

Limited or slow diffusion of a beneficial innovation can be problematic from the standpoint of justice for either or both of two reasons: once created, innovations do not mitigate problems of inequality unless they are diffused widely to the disadvantaged; and if diffusion is too limited or occurs too slowly it may actually produce new injustices, either by giving unacceptable advantages in political power to those who do have access to them or in excluding those who lack access to them from important sites or forms of economic cooperation. For convenience, we will use the term 'the ~~d~~diffusion ~~p~~problem' to refer to both of these phenomena.

A wide range of existing programs, projects, and organizations can be seen as exemplifying the strategy of promoting the diffusion of technologies in order to avoid or mitigate injustices due to lack of access or to promote justice by removing existing unjust disadvantages. An illustrative list might include the following.

(1) Private and government efforts to bridge the "digital divide" by providing subsidized or free computers, high-speed and/or wireless internet service, etc.
(2) Private and government programs designed to diffuse more widely the extremely valuable cognitive enhancement technology commonly known as literacy.
(3) Vaccine delivery programs in less developed countries, where infectious diseases are still a major contributor to childhood mortality.
(4) Donation or reduced pricing of "essential medicines" through arrangements between governments and pharmaceutical companies (in particular, anti-retroviral HIV-AIDS medications).
(5) 'Compulsory Licensing', as recognized by the WTO's Doha Declaration on TRIPS and Public Health, which acknowledges the right of States to grant

licenses for producing essential medicines without the permission of IPR-holders, if certain standards are met.

These examples of diffusion policies are not part of an overall strategy formulated in response to the articulation of goals of justice in innovation. Instead, they reflect an uncoordinated, piecemeal approach. In the next section, we outline a systematic proposal for promoting justice in innovation that emphasizes the Diffusion Problem, but also does something to address the Creation Problem. The core of this proposal is a new institution—the Global Institute for Justice in Innovation. The proposal focuses on one important impediment to diffusion: the monopoly pricing that results from the current intellectual property rights (IPR) regime.[8] Our proposal is to modify the IPR regime in a way that preserves its valuable functions while remedying or at least significantly ameliorating its institutional failures.

## II. THE GLOBAL INSTITUTE FOR JUSTICE IN INNOVATION

The Global Institute for Justice in Innovation (GIJI) would be an international organization designed to construct and implement a set of rules and policies governing the diffusion of innovations, on the basis of a sound set of principles. It would operate under conditions of accountability, according to rule-governed procedures, and would seek gradually to inculcate norms that specified appropriate behavior with respect to the diffusion of innovations.[9] The GIJI would be created by a multilateral treaty, with permanent staff, and international legal authority to make decisions that would not automatically be incorporated into the domestic law of its member States, but ~~are~~ only ~~to~~ become enforceable as a result of political and constitutional processes by each Member State. In this sense, the GIJI would be similar to the World Trade Organization (WTO), the rules of which are directly effective only on the international level, rather than the European Union, which requires as a condition of membership that certain rules be directly applicable in domestic legal proceedings. Such an arrangement would limit the sovereignty costs of the GIJI.

A subsidiary activity of the GIJI would be to encourage the creation of useful innovations, for example through prizes and grants for justice-promoting innovations and through offering extended patent life for innovations that have a positive impact on justice. But its major efforts would be directed toward the wider and faster diffusion of innovations in order to ameliorate extreme

[8]It should be noted that when "monopoly pricing" is referred to in the current article, this includes the partial or complete refusal to sell in a given market by an IPR holder, as this refusal is based upon an inability to receive the monopoly prices insisted upon.

[9]On institutions see Stephen D. Krasner, ed., *International Regimes* (Cambridge, MA: MIT Press, 1983), introduction; Robert O. Keohane, *International Institutions and State Power* (Boulder, CO: Westview, 1989). On accountability see Ruth Grant and Robert O. Keohane, "Accountability and abuses of power in world politics," *American Political Science Review*, 99 (2005), 29–43.

deprivations and reduce their negative impact on basic political and economic inequalities, as defined in section I above.

The GIJI would actively promote diffusion entrepreneurship, that is, efforts by NGOs and others to accelerate the diffusion of justice-promoting innovations. Indeed, the GIJI could give awards or prizes to firms that had consistently exceeded its diffusion standards, thus providing the firms with reputational benefits.[10] Its most important asset, however, would be what we will term a "licensing option," under which the GIJI would ~~obtain the right to~~ authorize compulsory licensing on a country-by-country basis of innovations that are diffusing too slowly. "Too slowly" here means that the innovations are failing to realize their potential for making significant gains in promoting justice or are exacerbating existing injustices, in the form of extreme deprivation or basic political and economic inequalities.

Member governments of the GIJI would enact legislation authorizing the relevant domestic authorities to initiate administrative actions to issue compulsory licenses for intellectual property as authorized by the GIJI. Since this proposal to allow centrally-directed compulsory licensing of intellectual property in these cases is, to our knowledge, a new idea, we will focus on it in what follows.

### A. The Licensing Option

Licenses would be granted to firms or other entities selected by the GIJI free of charge or for nominal fees, and would be distributed so as to reduce the price of the innovation to competitive levels. Thus, if the current slow diffusion of the product is due to monopoly pricing, freely distributing the license would accelerate diffusion. Some innovations, however, diffuse slowly because they are of little value. This is why the GIJI would have a licensing *option*. It would only act where there is evidence that the obstacle to diffusion would be removed by authorizing compulsory licenses and creating a competitive market for the innovation in question.

It is important to understand the political implications of the GIJI's authorization option. Without imposing supranational authority over governments, such authorization would render mandatory licensing by a developing country internationally legitimate. In view of the broadly representative nature of the authorizing body, to be discussed in more detail below, it would be hard for companies, in such a situation, to claim unfairness. The GIJI would therefore greatly strengthen the bargaining position of countries that had well-founded claims of insufficient diffusion. At the same time, however, it would protect firms against attempts by opportunistic governments to abuse

[10]Geoffrey Brennan and Philip Pettit, *The Economy of Esteem* (Oxford: Oxford University Press, 2004).

compulsory licensing by seizing private property. This proposal, therefore, does not try to suppress or avoid politics (a quixotic venture in international relations) but to shape politics in desirable ways.

If the GIJI's threat to authorize mandatory licensing has sufficient credibility, and imposes sufficiently high threat of loss on the firm, exercise of the GIJI licensing option should be a rare event. The threat of mandatory licensing would deter producers from exercising the capacity for monopoly pricing that intellectual property rights (IPRs) confer. Producers would know that they can keep their full IPR by refraining from monopoly pricing in the case of innovations whose slow diffusion would have a negative impact on justice. Producers would know that they could avoid the negative publicity of being warned about mandatory licensing, and could receive public praise and reward (through the prizes and grants policy), if they act in ways that promote justice. Over time, this array of incentives could help foster the norm of taking justice into account in the innovation process.

## B. Stages of Intervention

Exercise of the licensing option would be a last resort. The GIJI would construct a "watchlist" of innovations that warrant scrutiny from the standpoint of inadequate diffusion. Producers of innovations on the "watchlist" would be notified, without public announcement, that they are on it and that if diffusion does not improve, a *publicized* warning of potential liability to mandatory licensing will be issued in due course. If there is no significant improvement or evidence of significant efforts on the part of the producer to bring about improvement, the GIJI would initiate its internal process for authorizing mandatory licensing and announce that it was doing so. Such authorizations would be both (1) time-limited and (2) area-specific. Compulsory licensing would be authorized for a limited time period only, say from one to as much as ten years, depending upon projections as to how long it would take to achieve a significant increase in diffusion, and the time required for the licensee to receive an adequate return on its initial investment. If the diffusion problem were limited to certain less developed countries in which access to the innovation is critical (as is the case with medicines to combat malaria, for example), then the innovator would lose IPRs only with respect to that market. After the GIJI had authorized compulsory licensing, there would be another period in which the firm whose products were under scrutiny could change its policies to promote diffusion, providing another opportunity for compromise before mandatory licensing was imposed.

We have to consider the likelihood that firms and States supporting them might use this opportunity not to adjust their own policies but instead to put pressure on weaker States not to exercise their authority to invoke compulsory licensing. To reduce this risk, several measures would be necessary. There would have to be a clear legislative statement of observable "pressuring" actions that were

inappropriate in conjunction with a GIJI process for compulsory licensing, and of the period of time in which they were inappropriate (any time after the GIJI started considering compulsory licensing for a given product in a given country). Inappropriate actions would include any actions that would be reasonably interpreted as a punishment or threat toward a country that utilized a GIJI authorization for compulsory licensing. Such actions would include: withdrawing products from a country's market or raising prices/royalties on them except as part of a general policy applying to a set of similar countries, or threatening to do so; threatening the withdrawal of other forms of international aid, or of support on an unrelated issue in another forum. On a complaint by a State against a company or another State, a GIJI process would be set in motion involving conciliation, an arbitral panel, and the GIJI's Appellate Tribunal, as necessary.

If a State or company were found responsible for such actions, it would be put on probation. Complaints against companies or States on probation would be put on a fast track, bypassing the conciliation stage and shortening time periods for each stage in the process, while nonetheless remaining within the limits of due process. Lists of States and companies on probation would be published, and penalties for repeat offenses would be steeply increased. Such a process would strongly discourage coercive interference with a State's decision to utilize the GIJI's authorization of compulsory licensing, while not violating due process or mixing judicial with legislative functions.

Given that compulsory licensing would be time-limited and area-specific, and that the option need rarely be exercised for its purpose to be realized, this proposal can be properly characterized as a modification of existing IPR, not a radical over-turning of them.

### C. Compensation

With respect to the crucial question of compensation, we can imagine a continuum, at one extreme of which there would be no compensation. Such a policy would have the advantage of deterring monopolistic practices and would enable the Institute to operate on a relatively small budget. But there are three decisive objections to a no-compensation policy. First, innovation would be discouraged, especially innovations designed to help poor people in poor countries, since it is precisely these innovations that would be subject to GIJI authorization of compulsory licensing. Second, significant alterations would be necessary to many contemporary international agreements, including TRIPS and numerous bilateral investment treaties, which require that some level of compensation be paid upon the compulsory licensing of a patent. Third, it is virtually unimaginable that such a policy would be endorsed by wealthy countries that are home to the most innovative firms in such fields as pharmaceuticals and electronics, and whose ratification of a Treaty for Justice in Innovation would be essential for the GIJI to have a meaningful impact.

At the opposite extreme of this continuum would be a policy guaranteeing full market-value compensation. If credible, such a policy would not significantly discourage innovation and would generate support from powerful firms. However, such a policy would essentially use public funds to pay monopolistic prices to private firms. This would be unpopular with democratic publics, and it would be difficult to raise sufficient sums to finance many such licenses. Furthermore, it would not deter monopolistic behavior—quite the contrary, it might encourage it.

It seems clear that neither zero compensation nor compensation at the full (monopolistic) market value of the innovation is satisfactory. Hence some middle ground will have to be found. A "fair price," representing a substantial but not exorbitant rate of return for the company, would have to be paid. In our view, current theorizing about justice does not ground a unique determination of "fair price" here; instead, there is probably a range of reasonable alternatives. One of the first actions of the GIJI would be to devise a set of procedures through which a fair price would be determined. The trick is to pick a pricing system that creates the right incentives, given the goals the licensing option is designed to promote, and avoids any clear unfairness to any of the parties concerned. Since anything less than paying the monopoly price could somewhat discourage innovation, the GIJI might find that its diffusion strategy would be more effective if combined with subsidies for the creation of promising drugs, compensating for the speculative but sometimes alluring prospect of very large monopolistic profits in the long run.

Compensation would be paid directly by the GIJI, rather than through the traditional approach of the payment of royalties from sales of licensed products, in order to avoid the price increases that would result from royalties designed to pay the "fair price" determined by the GIJI. Such an approach would be consistent with the GIJI's goal of increasing diffusion of innovations, as a lower price would maximize the number of individuals able to afford the innovation in question.

### D. Political Decision-making by the GIJI

One of the major functions of the Global Institute for Justice in Innovation would be to assess the justice implications of the pace at which useful innovations were diffusing to disadvantaged people, either those suffering severe deprivation or those laboring under burdens of basic economic and political inequalities. Carrying out this function would be contentious and large amounts of money could be at stake, so the GIJI's decision-making arrangements need to be carefully designed. We only sketch one possible design here, to suggest the feasibility of our proposal and to promote discussion.

The GIJI would have an administrative unit with analytical competence and the authority to propose exercise of the Institute's licensing options and other actions. The model here is something between the ~~secretariats of the~~ WTO, which is relatively small and definitely subordinate to the membership, and the World

Bank or the International Monetary Fund, which are operated by much larger administrative organizations that make many decisions with only general supervision from their boards. The Executive Head of the GIJI could not order licensing of IPR on her own, but could propose licensing to an Assembly of the GIJI.

The Assembly, which would meet annually, would be composed of representatives of developed and developing countries, NGOs with substantial records of service to disadvantaged people (such as Save the Children and Oxfam), and firms holding patents. Participating NGOs would have to satisfy familiar requirements of transparency, financial integrity, independence from governments and corporate interests, and responsiveness to the preferences and needs of those individuals and groups they claim to represent or on whose behalf they claim to act.

Each of the four constituencies would elect its representatives at the Assembly. As in the Montreal Protocol Fund, governments of developed and developing countries would have equal numbers of representatives, elected separately from these constituency groups. One possibility would be an Assembly of 32 representatives, consisting of eight industrialized countries, eight developing countries, eight NGOs, and eight innovation-producing firms. It is important that the numbers not be too large; the Montreal Protocol Fund body, with fourteen members, has operated much better than the unwieldy universal bodies involved in the Kyoto Protocol and post-Kyoto negotiations.

Decisions by the GIJI Assembly to authorize compulsory licensing would require a super-majority for immediate action, coupled with a majority of the votes in three of the four categories of representatives. Demanding immediate action, NGOs and developing countries could not join with one or two industrialized countries to exercise a licensing option; on the contrary, they would have to get a majority of either industrialized countries or firms. There could be a provision for relaxing this requirement after a delay (say, of one year) in order to give IPR-holders and others time to voice disagreement. The idea is to promote deliberation and compromise, but not to give any one group (such as major drug companies supported by the United States) a veto.

### E. Accountability

The basic structure and key procedures of the GIJI would be deliberately designed to promote accountability. The composition of the GIJI Assembly would ensure that the organization is accountable, not just to the states that ratify the treaty which creates it—both with developed and developing economies—but also to various publics whose interests are represented by NGOs, and to the community of innovators. Furthermore, accountability would be enhanced by the stipulation that all major organizational actions, including acquisitions and changes in operating rules, are subject to administrative due process.

Proposals to authorize compulsory licensing could only be made under a set of rigorous due process requirements. First, the Executive Head of the GIJI would have to make a public announcement of intention to propose compulsory licensing of a specific set of intellectual property rights in a specific country for a specified period of time, and the GIJI would have to provide clear means for comments and discussion. This procedure would be similar to the 'notice and comment' procedures of US administrative law, which require Federal agencies to publish potential rules, allow time and opportunity for interested parties to complain and make suggestions, and require a reasoned response from the agency proposing the rules. After the required period of perhaps 45 or 60 days has elapsed, the GIJI would have to re-issue its proposed order for compulsory licensing, at which point it would formally be put on the docket of the Assembly. Decisions of the GIJI could be reviewed for conformity to due process standards by an Appellate Tribunal, roughly modeled on the Appellate Body of the World Trade Organization.[11] That is, there would be a public set of procedures that encouraged compromise but provided for rulings by expert panels that could be appealed to the Appellate Tribunal, composed of judges selected for relatively long terms. The Appellate Tribunal would hear cases in public and issue public decisions providing reasons, which could serve as precedents to develop a body of GIJI law.

## F. Funding

The GIJI's funding would come chiefly from member States, on a sliding scale, according to ability to pay. On the model of the World Bank subscription system,[12] countries would commit funds as necessary in large amounts—funds that would be essential ~~for ensuring IPR holders that were subjected~~ to compulsory licensing received fair compensation.[13] As noted above, the GIJI would pay compensation directly, subsidizing diffusion of the innovation. Having funds readily available would enhance the credibility of the GIJI's warnings that it was intending to order compulsory licensing, and contribute to its deterrence of monopolistic pricing.

[11]The combination of notice and comment procedures with judicial review of due process is a feature of administrative law, as developed in the United States since the Administrative Procedures Act of 1946, and now spreading to international organizations. See Benedict Kingsbury, Nico Krisch, and Richard Stewart, "The emergence of global administrative law," *Law and Contemporary Problems*, 68 (2005), 15–62.

[12]Article 5 of the Articles of Agreement of the International Bank for Reconstruction and Development, the largest unit in the World Bank Group, provides that twenty percent of the subscription of each member is subject to call when needed for ordinary obligations of the Bank, and eighty percent is basically held in reserve to guarantee loans issued by the Bank. For the Articles of Agreement, see: ⟨http://siteresources.worldbank.org/EXTABOUTUS/Resources/ibrd-articlesofagreement.pdf⟩.

[13]~~Where this included~~ the possibility of extra payment necessary to secure the cooperation of IPR holders in cases in which the IPR-holder possessed non-public information essential for the manufacture of the licensed product.

## G. Is the Proposal a Morally Unacceptable Modification of Existing IPRS?

This proposal does not assume that innovators are morally responsible for injustices that result from inadequate diffusion of their products. On the contrary, we do not believe that innovators have any special moral obligation to promote justice through the diffusion of their products.

The GIJI's ability to order compulsory licensing only assumes that the moral rights innovators have regarding their creations do not preclude the very limited form of interference with existing legal IPRs that properly-exercised compulsory licensing entails. At any rate, our proposal is directed toward those who view the existing IPR regime as roughly within the bounds of the reasonable and the morally acceptable, not toward radical natural rights views that ascribe extremely broad, indefeasible 'natural' moral rights to innovators. Moreover, our argument is *comparative*: given a reasonable construal of the existing IPR regime as an instrument designed to serve a plurality of widely held values, our proposed modification of it does a better job of balancing those values. It ameliorates a very troubling side-effect of monopoly pricing without an unacceptable decrease in incentives for innovation.

## H. Is the Proposal Politically Realistic?

One could expect the Global Institute for Justice in Innovation to be greeted with at least cautious enthusiasm by developing countries and NGOs. Of course, their bargaining strategies will temper their public support, since they will be working for more favorable terms; but in fact they have much to gain and little to lose from the proposal. The proposal will not be as attractive to powerful developed states and the innovation-creating firms based in these states. If the GIJI is to work, it will require the support of these states, including especially the United States and Japan, and the European Union; and at least acceptance by major firms—which might itself be a necessary condition for support by powerful states. Without making unrealistic assumptions of altruism, what incentives would powerful states have to help create and to sustain the GIJI?

Before focusing on the positive incentives, it is important to note that the GIJI does not threaten the constitutional sovereignty of States: that is, their legal supremacy and independence.[14] States would retain their ability to make final decisions on issues of importance to them. All member States would retain the ability to determine for themselves how much control to deliver to the GIJI, and would also retain the right to decide whether to take up any authorizations they received. The GIJI's rulings would not have direct effect within domestic

[14]Hedley Bull, *The Anarchical Society* (New York: Columbia University Press, 1977), p. 8.

jurisdictions, and could not override domestic laws. Moreover, States could withdraw from the organization, with due notice.

Like the WTO, the GIJI would constitute an *exercise* of sovereignty by States. Members of the GIJI would be publicly committed not to thwart the purposes and actions of the organization—for instance, by threatening retaliation against the GIJI for ordering compulsory licensing of IPR owned by their own firms, if these acquisitions were judged by the Appellate Body to have been carried out in conformity with its rules and procedures. Like all international legal agreements, the GIJI would limit the legal freedom of action of States but would not affect their constitutional sovereignty: their fundamental right to make decisions for themselves. There are four major positive reasons for developed countries and their firms to support the GIJI. The first and most general is that more rapid diffusion of innovations would accelerate economic development worldwide—a long-term goal of developed countries, as it is in their interests to enhance both prosperity and the chances for a peaceful and more democratic world order. Wide diffusion of innovations would create conditions facilitating the creation of more innovations in more diverse ways, some of which would almost certainly rebound to the advantage of people in developed countries.

Since appeals to general interests are often not persuasive to firms or governments, we rely more heavily on three more self-interested reasons to support the proposal. The most concrete of these three reasons is that the GIJI's role in evaluating patents for potential compulsory licensing could reduce the potential arbitrariness of current compulsory licensing procedures. Decisions at the GIJI would be reached within a system in which both developed countries and IPR producers themselves are active participants. Developing countries would retain the power to order compulsory licenses without sanction by the GIJI. However, any decision to order a compulsory license that either had previously been rejected by the GIJI or was never submitted to the GIJI would be difficult to defend in the public arena, and inconsistent with claims that it was being pursued for the public good.

The third and fourth reasons are both reputational. The GIJI would provide significant reputational advantages to IPR holders involved in disputes about alleged monopolistic pricing that harms disadvantaged people. At present, these disputes take place in an open public sphere, in which interest groups with the best sound-bites and the media play a large role. Major drug companies were quite bruised, for example, by the campaigns against them at the beginning of the Millennium with respect to pricing of AIDS drugs—campaigns that often portrayed the companies as rapacious profit-seekers unconcerned about the welfare of poor AIDS sufferers in Africa. The GIJI would give the companies and their supporters a forum for their own defense: if a GIJI that was regarded as legitimate by attentive world publics ruled in favor of the company, this would provide compelling support for its reputation.

The fourth reason concerns the reputations of countries rather than firms. By supporting the GIJI the developed countries would be making a powerful symbolic statement at relatively low cost to themselves. The reputation of the rich countries for being willing to help poor ones has been badly damaged by their reneging on promises in the Uruguay Round of trade negotiations (1987–1994) to reduce trade barriers to agricultural products. While the various agricultural lobbies in rich countries may make fulfillment of those pledges impossible, moving ahead with a Global Institute for Justice in Innovation could demonstrate good faith. There is no denying that the GIJI would be a 'hard sell' for drug companies and other patent-holders whose business plans count on monopolistic returns on successful innovations to compensate them for huge up-front investments, many of which yield no commercial products. However, the ability of the GIJI to authorize licensing on a national basis, rather than globally, would mean that patent-holders would retain their IPR in countries in which diffusion was indeed adequate, these being the countries in which current revenue from the innovation in question would predominantly come. Public pressure and attention to the problem of innovation diffusion, in industrialized democracies, would be essential for this proposal to gain sufficient traction to be politically feasible. But in the end, this is a modest proposal that would not fundamentally disrupt the activities of innovation-creating companies, and that might induce them to devise ways to accelerate diffusion of their innovations in ways that rebounded to their long-term benefit.

## III. THE COMPARATIVE MERITS OF THE GLOBAL INSTITUTE FOR JUSTICE IN INNOVATION

A plausible case for institutional innovation must be comparative in two ways: it must show that the proposed institution is superior both to current efforts to solve the problem it addresses and to the best developed rival proposal currently on the table. The current response to this problem is the provision in international legal agreements for compulsory licensing of essential medicines through domestic legal systems. The best-developed proposal for an alternative system is that of Thomas Pogge for a new drug patent system that would be responsive to the global disease burden.

### A. Compulsory Licensing as Currently Employed

Existing compulsory licensing does not fare well in comparison with our proposal for a Global Institute for Justice in Innovation for several reasons. First, although existing compulsory licensing is supposed to be accompanied by compensation, there are no provisions for ensuring that States actually render fair compensation or indeed any compensation at all. While failure to do so might technically give rise to the possibility of a claim at the WTO, this will only happen if the IPR holder's home State is willing to publicly insist upon payment for the

company in question. However, political concerns mean that it is highly unlikely such a claim will be brought where the State undertaking compulsory licensing was one of the poorer developing countries attempting to ensure the availability to its citizens of an essential medicine or other important innovation. Moreover, even if a claim were brought, the dispute resolution process would be ~~entirely~~ controlled by the IPR holder's home State, with the IPR holder itself having ~~no say in~~ how the dispute is argued, or whether a given settlement offer should be accepted. In contrast, the GIJI would provide fair compensation without the need of intervention from the IP holder's home State, and all dispute resolution processes undertaken at the GIJI would be ~~controlled~~ directly by the ~~IP~~ holder itself~~; and would~~ operate in accordance with due process, including the possibility of appeal with review by the Appellate Body.

Furthermore, existing compulsory licensing is unilateral, at the discretion of a single State, with no accountability mechanism, whereas a decision by the GIJI to authorize compulsory licensing would occur through the operation of a multilateral institution, with credible provisions for accountability not only to States, but to other stake-holders as well. Lack of accountability might seem to advantage weak States that are most likely to need to exercise the option of compulsory licensing. However, weak States are subject to powerful pressures from strong States (where most IPR are held) to not exercise this option. Since GIJI authorization of licensing is multilateral, with robust accountability, it would provide opportunities for weaker States to benefit from initiatives with respect to diffusion without having to resort to politically risky efforts to invoke compulsory licensing on their own authority. Multilateralism provides some protection for weak States that act as part of, or on behalf of, a larger group.

### B. Pogge's 'Patent 2' Proposal

In several influential papers, Thomas Pogge has offered an institutional proposal designed to address both aspects of the 'essential medicines' problem: the lack of access to life-saving drugs that millions of people suffer because of monopoly pricing under the current IPR system, and the failure to develop drugs that would be of great benefit to millions of people. Both of these deficiencies derive from the lack of market demand resulting from poverty. Pogge proposes to leave intact the existing IPR system (what he calls the Patent 1 option) but to create an alternative: innovators could opt for Patent 2, which requires them to make public all information about their innovation and forgo all regular IPR, but which makes them eligible to be rewarded by disbursements from an international fund in proportion to the positive impact of their innovation on the global burden of disease.[15]

[15]Thomas W. Pogge, "Human rights and global health: a research program," *Metaphilosophy*, 36 (2005), 182–209.

Pogge has made a major contribution by emphasizing the moral importance of the issue of the diffusion of life-saving drugs and by putting forward an ingenious proposal that is responsive to firms' interests and the many incentive problems that arise in this area. We see his proposal as a very valuable prod to discussion, rather than as an attempt to provide the 'last word', and in that spirit we offer criticism and defend our alternative in comparison to his Patent 2 proposal.

Our proposal for a Global Institute for Justice in Innovation is in one sense much broader than Pogge's Patent 2 proposal, which is limited to one kind of innovation, namely patentable drugs, and is designed only to address one aspect of justice in innovation, namely, the problem of extreme deprivation. In contrast, the GIJI takes into account the relevance of innovation to justice more generally and identifies legitimate interests in justice—namely, the concern about basic economic and political inequality—beyond the preoccupation with extreme deprivation. This difference, however, is not critical. In principle, Patent 2 could be instituted as part of a broader effort on innovation, with adaptations of Pogge's ideas to other types of innovation that might affect basic economic and political inequality more than extreme deprivation.

A key feature of Pogge's Patent 2 proposal is that its exercise is entirely voluntary. This voluntariness may seem to be an advantage of Pogge's scheme over ours: no potentially intrusive institution would be created under Patent 2, and opposition by firms to a legal regime providing for it would presumably be muted by the voluntary adherence provision. Drug companies could decide, case-by-case, whether to invoke Patent 1 or Patent 2 protections. However, the voluntary nature of Patent 2 is a double-edged sword, since firms might never invoke the Patent 2 option. Never invoked, Patent 2 would be like unfinished monuments in the desert: testimonies to failed ambition. The big question about Patent 2, therefore, is whether firms will invoke it.

Whether they will do so depends upon how credible the promise of reward is. For the promise to be sufficiently credible to induce drug producers to forgo the known benefits of the Patent 1 option, two things must be true. First, drug producers must have confidence that the promised funds will be available, perhaps many years in the future. We call this the *funding assumption*. Second, the firms must have confidence that the procedure for identifying the disease burden reduced by a drug, and therefore the patent 2 rewards due to drug companies, will be reliable and fair. Call this the *reliability assumption*. In our view, both of these assumptions are so problematic as to threaten the credibility and therefore feasibility of Pogge's proposal.

The problem with the funding assumption is that it is inconsistent with what is known about the trustworthiness of international funding pledges. The most notorious of these pledges is that made in United Nations General Assembly Resolution 2626 (1970), adopted without a vote. This resolution pledged that "Each economically advanced country will progressively increase its official development assistance to the developing countries and will exert its best efforts

to reach a minimum net amount of 0.7 per cent of its gross national product . . . by the middle of the Decade."[16] Thirty-seven years later, only five small European countries exceeded that target, and U.S. aid stood at 0.16% of Gross National Income.[17] Looking at this track record on the most publicized commitment in the world political economy over the last 40 years, it is very unlikely that any drug company would rely on any promises about long-term funding for the Patent 2 scheme. Providing public funds to drug companies is unlikely to be politically popular: competing demands will always seem more urgent and desirable.

The reliability assumption is also problematic because of the difficulty of obtaining agreement, even among experts, on reliable measurements of the impact of a particular drug on the global burden of disease. One source of difficulty is the fact that in many cases the decline in the incidence of a particular disease will be the result of a number of factors, including the decline of other diseases, in cases where co-morbidity is prominent, and the cumulative effect, over many years, of a combination of medical, environmental, and cultural changes. Furthermore, the assessment authority would have an institutional incentive to understate the value of a patented innovation, in order to reduce the payment that it needs to make. Given the complex causation and the inherent negative bias of the assessment institution, it seems unlikely that drug producers will forgo the well-trod path to profits in exchange for an unpredictable outcome in a very problematic process for determining who gets rewarded and how large the reward is.

We conclude that although Patent 2 does not require any restriction of existing intellectual property rights and thus might be thought to be superior to the GIJI on this count, this advantage will be nullified if drug producers have insufficient incentives to take up the Patent 2 option in the first place. *The central problem with Pogge's proposal is that neither the funding assumption nor the reliability assumption is credible*. Due to the weakness of these essential assumptions, Patent 2 is very unlikely to be implemented in its current form.

In contrast, both the funding and reliability requirements of the GIJI's policies are much less demanding. The resources required by the GIJI on an annual basis are moderate, to cover administrative costs. ~~Moreover, the ability of the GIJI to authorize compulsory licensing means that while compensation paid to IPR holders should be fair, it need not be at all competitive with the income IPR holders would generate from monopoly pricing. Furthermore,~~ the deterrent effect of authorized compulsory licensing, and provisions for consultation, should ensure that the provisions are rarely exercised. Consequently, the level of funding required for the GIJI will be significantly lower than that required for Patent 2.

[16]Michael A. Clemens and Todd J. Moss, "Origins and relevance of the international aid target," Working Paper Number 68, Center for Global Development, September 2005, p. 8.

[17]Anup Shah, "US and foreign aid assistance", ⟨http://www.globalissues.org/article/35/us-and-foreign-aid-assistance⟩, last updated April 13, 2009.

The GIJI does require a 'war chest' of contingent resources from governments, but the existence of the ~~IMF~~, demonstrates that making large contingent commitments is feasible. Although the GIJI does include a provision for prizes and grants, its main focus is not on rewarding those who create products that the market would not otherwise produce, but rather on making sure that what does get produced becomes widely available, rapidly enough, to promote justice or at least not to worsen injustices.

It is important to understand why the poor track record on international financial commitments is a debilitating problem for Patent 2 but not for the GIJI. For the GIJI's threat of internationally authorized compulsory licensing to provide an effective incentive for innovators to lower prices or take other measures to accelerate the diffusion of their products, it only needs to make credible claims of a much more limited sort than those required under the Patent 2 scheme. Innovators must believe that they are at risk of authorized compulsory licensing if their product is diffusing so slowly that it is likely to be perceived by the GIJI to be contributing significantly to existing injustices or to be failing to make a significant contribution to ameliorating a significant injustice. Generally speaking, the risk that one may completely lose one's monopoly for a highly valued innovation would seem to concentrate the mind more effectively than the speculation that one could be rewarded—and continue to be rewarded – decades from now, if states hold fast to their pledges to create and sustain a reward fund.

Pogge might reply that it counts heavily in favor of his proposal that it includes a powerful Creation Strategy as well as a Diffusion Strategy, while the GIJI focuses only on the latter. In other words, he might argue that the GIJI's inclusion of provision for prizes and grants is an insufficient response to the fact that drugs that would have a large positive impact on justice are not being created due to the inadequate incentives provided by the existing IPR system. This is a fair point in the sense that institutional proposals that would stimulate the creation of new innovations would certainly be welcome; but if, as we have argued, Pogge's proposal would be a dead-letter, it does not count in favor of his scheme. In any event, no institution can reasonably be expected to do everything. It is true that the distinctive thrust of the GIJI, the licensing option and free licensing authority, is directed toward the Diffusion Problem, not the Creation Problem. Revisions of Pogge's Patent 2 proposal that made it institutionally more credible for helping to solve the Creation Problem would be welcome. Indeed, if our proposal for a Global Institute for Justice in Innovation effectively resolved the Diffusion Problem, the task of designing an institution to solve the Creation Problem might be easier to fulfill. Its designers would no longer have to address both problems simultaneously with one instrument—a job that in institutional design, as in economics, is often difficult or impossible.

The problem of inadequate diffusion of innovations is of sufficient importance to warrant consideration in its own right, independently of the

problem of essential medicines. Many innovations that could have an important impact on justice are *not* like anti-malarial drugs: access to them will be beneficial not just to those in less-developed countries, but to virtually everyone, and the problem they present for justice is not that they are unlikely to be produced by the market. Consider, for example, biomedical technologies that extend years of vigorous life or that augment the immune system, or drugs that enhance important cognitive skills. The problem here is not that there is insufficient market demand to stimulate research and development; rather, it is the risk that these valuable innovations will not be available except to the better off or that they will not become available to most people quickly enough to avoid significant injustices.

## IV. THE STATUS OF THE GLOBAL INSTITUTE FOR JUSTICE IN INNOVATION UNDER INTERNATIONAL LAW

While there are a number of international agreements that would potentially affect the actions of the Global Institute for Justice in Innovation, attention here will be paid only to the two most important types: (1) the WTO's TRIPS Agreement, and (2) Investment treaties.

### A. TRIPS

As a mandatory agreement for all WTO Members, TRIPS has a far-reaching global impact, and thus the degree to which the GIJI and its actions would conform to the requirement of TRIPS is extremely important. The following discussion will ~~illustrate that~~ a WTO Member State that grants a compulsory license as a result of a decision by the GIJI would not be in violation of its obligations under TRIPS.

While there have previously been questions raised regarding the acceptability of compulsory licensing under TRIPS, its acceptability as well as the freedom of States to decide the reason for compulsory licenses being granted was explicitly confirmed in the 2001 Doha Declaration on the TRIPS Agreement and Public Health. Moreover, while TRIPS does specify some reasons for which compulsory licenses might be granted under domestic law, these are not stated to be exclusive. Consequently, so long as compulsory licensing under the GIJI operates in a manner consistent with the constraints on compulsory licensing enunciated in TRIPS, no WTO liability would attach to any appropriate action taken in accordance with a GIJI compulsory licensing decision.

Compulsory licensing restrictions under TRIPS are predominantly found in Article 31, which lists 12 procedural standards that must be met in order for any grant of a compulsory license to be TRIPS-consistent. For the purposes of discussion of the GIJI, four are particularly important, and thus will be discussed here.

Under Article 31(a), decisions to grant a compulsory license must be made on an individualized basis. That is, licenses cannot be granted for all products of a particular type, such as "all pharmaceuticals". Rather, each individual product must be considered for compulsory licensing on its own merits. As the GIJI process specifically involves evaluation of innovations on an individualized basis, this provision clearly presents no obstacle to the GIJI.

Under Article 31(b), an attempt must be made prior to compulsory licensing to obtain authorization from the patent holder to license the patent on reasonable commercial terms and conditions. Exceptions exist to this rule, including where a national emergency or other urgent circumstance exists. However while in some circumstances the GIJI may indeed need to rely upon this "national emergency" exception, it will usually not be necessary. The GIJI is institutionally designed to ensure that direct discussions with patent holders occur for a reasonable time prior to any decision to order a compulsory license. Consequently, unless a "national emergency" makes a rapid compulsory licensing order necessary, the requirements of Article 31(b) will be met—and if a "national emergency" has occurred, Article 31(b) will not be applicable.

Under Article 31(h) the patent holder must receive "adequate remuneration" to compensate it for any losses due to the compulsory license. While there is no clear agreement regarding the meaning of "adequate" as used in this provision, the goal of the GIJI to pay "fair" compensation, at a rate higher than the 2-5% royalty rate conventional in compulsory licensing, would seem to ensure that the compensation paid by the GIJI will indeed be more than "adequate".

Under Articles 31(i) and (j), the compulsory licensing decision must be subject to review by an authority superior to the body making the original decision. While appeals may not be available within the domestic legal system in which compulsory licensing was ordered, this requirement is clearly met by the incorporation within the GIJI of an Appellate Tribunal.

The GIJI, then, is designed in a manner that would make enactment of its compulsory licensing decisions consistent with the TRIPS obligations of the GIJI Member State concerned. Ideally, to remove any doubt, this would be reflected through the enactment of a special amendment to TRIPS clarifying that no grant of a compulsory license taken in accordance with a GIJI decision could give rise to a claim for violation of WTO obligations. However, even if such an amendment were not able to be passed at the WTO, an additional protection exists for developing countries enacting GIJI-ordered compulsory licenses, in the form of the dispute settlement system of the WTO.

As TRIPS is a WTO text, any claim that a State was in violation of its TRIPS obligations in enacting a GIJI-ordered compulsory license would have to be resolved through State-to-State arbitration, rather than through individual patent holders directly bringing a claim against the GIJI Member State in question. However, Members of the GIJI will find it politically enormously difficult to justify bringing a WTO case against a State that has merely implemented a GIJI

decision, when the complaining State itself had previously agreed by becoming a Member of the GIJI that the GIJI's procedures were fair. Non-Members of the GIJI would, of course, face no such obstacle. However, as already argued, there is no reason to believe that any compulsory licensing decision made by the GIJI would result in WTO liability even were a claim brought.

### B. Investment Treaties

An enormous number of investment treaties now exist around the world, and a great number of them explicitly include reference to IPR as constituting a form of "investment". Consequently, it is possible that the granting of a compulsory license by a developing country, in accordance with a decision by the GIJI would give rise to a claim for compensation under an investment treaty.

While investment treaties all contain a variety of grounds on which an investor can claim compensation from a State, those based on the manner in which an investment has been treated, such as "fair and equitable" treatment, would be very unlikely to serve as the basis for a claim for any action taken in accordance with a GIJI decision, due to the procedural safeguards included in the design of the GIJI. In addition, the traditional claim for "expropriation", made when a State takes the property of a foreign investor, could not be made with respect to compulsory licensing done in accordance with a GIJI decision, as the investor would retain the patent in question, but would merely be required to allow others to produce licensed versions of the product in question.

Compulsory licensing could, however, give rise to a claim of "indirect expropriation", which occurs when a State regulates an investment in a manner that leaves formal ownership of the investment with the foreign investor, but effectively takes away the benefits of the investment. While arguments would be available to any GIJI Member State forced to defend such a claim, the unresolved nature of contemporary international investment law regarding indirect expropriation means that it is impossible to be certain that a compensable indirect expropriation would not be found.

Moreover, the structure of investment treaty dispute resolution means that the patent holder would have the right itself to institute arbitration in order to secure compensation for its alleged losses. Thus, unlike at the WTO, developed States would not be able simply to reject claims for compensation by their investors who have allegedly suffered losses as a result of a GIJI decision.

Nonetheless, while investors control their own claims under an investment treaty, it is important to remember that the treaty is nonetheless between the two States, with the investor itself having no direct role in its implementation or interpretation. As a result, the risk of claims being raised under investment treaties as a result of a GIJI compulsory licensing decision could be significantly reduced merely by requiring States joining the GIJI to sign a declaration that no compulsory licensing granted in accordance with a GIJI decision would give rise

to a claim under any investment treaty to which it was a party.[18] Alternatively, even greater protection could be gained if individual agreements were signed by GIJI Member States that were parties to investment treaties stating that compulsory licensing granted in accordance with a GIJI decision would not give rise to a claim under the specific treaty in question.

This would, of course, not be a complete solution, as claims could still be made under investment treaties involving non-GIJI Member States. Moreover, investment arbitration tribunals have recognized the right of investors to qualify as an "investor" under a specific treaty merely by undertaking the formalities of incorporation in a State party to the treaty, so long as the treaty itself permitted this. Consequently, the risk of an investment treaty claim could not be entirely eliminated by such agreements.

Nonetheless, the possibility of a compensation order being made by an investment arbitration tribunal against a developing country due to a GIJI decision could be adequately addressed by having such claims paid by the GIJI itself where the State acted in accordance with GIJI rules and instructions. In this way the burden would be spread amongst all GIJI Members, thus minimizing the financial burden on any individual State.

## V. CONCLUSION

One of the morally unacceptable features of the contemporary world is that innovations that would be of immense value to severely deprived people, and that would ameliorate unjust economic and political inequalities, are not widely available even though the marginal costs of providing them are low. One source of this problem is the patent system, which stimulates innovation by giving monopoly rights to patent-holders. Monopoly pricing by patent-holders combines with lack of resources by those who need the innovations the most to generate deprivation and inequality. The *diffusion of innovation* is blocked by the features of dominant institutions.

Since this is an institutional problem, we propose an institutional solution: a Global Institute for Justice in Innovation. This Institute would offer prizes and other incentives for innovation, but its major task would be to promote the diffusion of existing justice-impacting innovations through a multi-step process. Quiet encouragement of more rapid diffusion could be followed, when unsuccessful, with public 'naming and shaming' of firms that restricted access to their products through monopoly pricing or other means. But the Institute would also have a standing compulsory licensing option for intellectual property rights whose owners were not sufficiently promoting diffusion to disadvantaged people. If informal measures did not succeed, the GIJI could authorize states to issue

[18]Naturally, the language used to describe the declaration is only intended to convey the substance of the declaration, and the precise wording of the document itself would need to be different.

compulsory licenses for innovations that were not diffusing at a sufficiently rapid rate. Such proposals would have to be accepted by supermajority vote of an Assembly in which developed countries, developing countries, NGOs and firms holding intellectual property rights would be equally represented. Fair compensation, according to previously publicized procedures and guidelines, would be paid by the GIJI, drawing from funding by its member States. Finally, in applying any authorized measures, the GIJI would be subject to procedures of global administrative law, including oversight by an independent Appellate Tribunal.

We anticipate that many of these elaborate procedures would not need to be invoked. We expect that the mere threat of compulsory licensing would accomplish a great deal, without its frequent exercise. Much good would therefore be done, at low cost and without incursions on state sovereignty or frequent use of coercion.

Our proposal is indebted to the pioneering work of Thomas Pogge, who has emphasized the importance of access to new drugs—a major part of the innovation diffusion problem—and has made an institutional proposal of his own. In our view, however, his Patent 2 proposal has institutional flaws inherent in the lack of credibility of long-term promises by States fairly to assess the value of drugs in relieving the global disease burden, and on that basis to provide an adequate flow of royalties to drug firms. What we deem both Pogge's *reliability assumption* and his *funding assumption* highly problematic. We argue that our proposed Global Institute for Justice in Innovation would be more credible and more effective, and accomplish enormous good at very low cost. It would not solve the problem of creating new innovations—for which a revised version of Pogge's proposal might be valuable—but it could go a long way toward solving the Diffusion Problem, which currently is the source of so much unnecessary misery and unjust inequality in the world.

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