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### Plan

#### Plan: The United States federal government should prohibit the refusal to license climate mitigation and adaptation technologies as an anticompetitive business practice.

### Solvency

#### The SQ denies antitrust remedies for patent abuse

Gunderson 14 [Adam, practicing attorney at the Gunderson Law Group, “Protecting the Environment by Addressing Market Failure in Intellectual Property Law: Why Compulsory Licensing of Green Technologies Might Make Sense in the United States: A Balancing Approach,” *BYU Law Review* 2014.3, p.679-81, JCR]

Concern over patent suppression is not hypothetical. There have been a number of documented cases in which this phenomenon has taken place. In each case, patent suppression has been a means of hindering the progress of new technologies. Inasmuch as patent law is authorized under the Constitution in order to “promote the progress science and the useful arts,” patent suppression—whereby patent holders purposefully acquire patents only to prohibit their use or development—is contrary to that purpose and represents a clear abuse of that law. This section briefly explores a few examples of patent suppression and explains how the current legal framework of intellectual property [IP] and antitrust law is generally insufficient to stop the abuse. Perhaps one of the most well-known examples of patent suppression was brought to the forefront of public attention by the film Who Killed the Electric Car. 42 This documentary details the development and eventual suppression of battery technology capable of powering zero-emission automobiles.43 According to the documentary, General Motors acquired a small battery technology company, Ovonics—which had made tremendous advances in battery technology—and began to develop an electric car that would eventually be named the EV-1.44 When California’s political climate and the looming threats of burdensome regulations made GM nervous about the timing of the technology’s release, Texaco (which was soon after acquired by Chevron) stepped in and purchased the rights to the battery technology in order to suppress it.45 Another example occurred in the light bulb industry in the early 1900s.46 General Electric, which had a large stake in the incandescent light bulb industry, purchased the patent for a moreefficient fluorescent light bulb.47 In order to maximize its profits for the incandescent light bulbs, General Electric sat on the patent for the fluorescent lights, refusing to either bring the technology to market itself or to license the technology to other market participants.48 Not until Sylvania, another electronics company, successfully marketed a similar technology did General Electric begin to use its patented florescent light bulb technology.49 Bell Telephone also implemented patent suppression techniques in order to preserve the status quo.50 A 1920s investigation by the federal government found that Bell Telephone had purchased and suppressed over 3,000 patents.51 Bell had developed a practice of acquiring patents for the sole purpose of keeping those technologies out of the hands of their competitors.52 The law regarding patent suppression has not always been clear and while it appears that antitrust remedies may be available as a means of preventing some instances of patent suppression, such remedies are still not generally available.53 In 1886, a federal district court held that a patent holder could only be guaranteed legal protection of its patent if the holder was actually using the patented technology.54 However, in 1908, the U.S. Supreme Court held that patent non-use does not foreclose the patent holder’s right to protection under the law.55 With the birth of antitrust law, new remedies became available to stop anticompetitive behavior through which powerful companies tried to eliminate competition.56 While it may appear that patent suppression would fall into this category of behavior, courts have demonstrated an unwillingness to apply antitrust remedies to cases of patent suppression.57 For example, in SCM v. Xerox, the Supreme Court held that so long as a patent is acquired legally, it is not a violation of antitrust law to use the patent to the “full extent allowed under patent law,” which includes preventing third parties from using a technology, even when the patent holder itself is not using the patented technology.58 The holding of this case has been followed in subsequent decisions and is still good law.59 Thus, despite the similarities between patent suppression and those problems generally meant to be addressed by antitrust laws, it seems that antitrust law by itself is insufficient to stop patent suppression.

#### Federal action on climate patent monopolization is a prereq to innovation and development

Cayton 20 [Samuel, Adjunct Prof at Seattle Univ School of Law, legal intern at the Media Law Group, “The ‘Green Patent Paradox’ and Fair Use: The Intellectual Property Solution to Fight Climate Change,” *Seattle Journal of Technology, Environmental & Innovation Law* 11.1, p.239-45, JCR]

Congress has the constitutional authority to create laws that advance the development of technology through patents.197 Therefore, the optimal step to promote the use of green patents is to pass a federal law that provides a defense to patent infringement for green technology. While fair use is not codified in any form within Title 35 of the U.S. Code, Congress has enacted patent provisions tailored for specific purposes that involve loosening patent protection for the rightsholder.198 For instance, the Patent Act permits infringement where secondary use is part of a process to obtain approval of a new drug from the Federal Drug Administration.199 Additionally, the Act limits a patentee’s ability to recover damages when a patented invention is used in a medical or surgical procedure.200 These statutory exceptions to patent infringement reflect the notion that American society values technologies that provide a public health benefit, even if it is at the expense of a patent holder’s right to exclude.201 To ensure that the policy motives around green technology in the American industries are captured, Congress should engage in extensive fact-finding through congressional hearings and research. A bill from either chamber should incorporate the international consensus that climate change is a global threat to the planet that also has the potential to jeopardize public health.202 It should also make clear that climate change is anthropogenic and has accelerated in part due to environmentally hazardous industrialization.203 Furthermore, the bill should capture factual findings that touch on the following: that technological innovation plays a vital role in mitigating the effects of climate change;204 that a mass expansion of environmentally sustainable technology is needed to substitute the environmentally hazardous technologies;205 and that altering the U.S. patent law is a necessary action to promote this expansion.206 These findings should also qualify that patent holders’ incentives are equally important to the development of an environmentally sustainable economy.207 The elements of fair use in the law should not only be specific enough to guide the courts in their analysis of whether the secondary user is privileged as a fair user of a green patent but also general enough to provide a working template for courts to use in infringement suits. Even if Congress does not implement a fair use doctrine for green patents–a probable scenario given its current state of dysfunction–the federal court system is also authorized to intervene on its own. Two justifications permit the courts to allow fair use in patent law: first, fair use in copyright law was originally judicially created208 before Congress codified it,209 and, second, federal courts have already ruled on patent infringement cases with outcomes that favor continued use by second-comers as seen in eBay and Paice. 210 Whether or not the primary authority comes from the legislature, courts should undergo the following analysis in its fair use defense: (1) Does the patent at issue cover a field of green technology? The first part of the analysis requires courts to determine whether the patent at issue covers environmental sustainability or protection. To properly guide their analysis, the courts would benefit from having Congress enumerate a non-exhaustive list of industries that can utilize a fair use defense, such as alternative energies, fuel-efficiency, GHG and pollution reductions, and so on. Nevertheless, courts are equally capable of making their own determination. (2) If the patent covers green technology, and the second-comer infringes on its use, is that user privileged as a fair user? Under this prong, the court will assess several considerations regarding the patent regime, much like Dean Emerita O’Rourke’s aforementioned proposal. However, the factors for this green patent fair use proposal will be tailored to capture the considerations of green technology industries. Although Congress should enumerate these factors into the law, the court can further develop and define them: (1) the market potential; (2) the patentee’s developments; (3) the purpose and nature of the secondary use; and (4) the interests of the patentee and industry. First, the court should consider the potential market impact of the patented technology at issue. To adequately assess this factor, experts in technological fields can testify in federal infringement suits and make reasonable valuations of the patented technology’s capabilities in the market. This judicial assessment can reveal the untapped potential that may justify secondary use. Second, the court should evaluate the patentee’s developments of each patent. This part of the test will determine whether the patentee is sitting on the patent or whether they are capitalizing on its potential found in factor one. This step in the test aims to remedy the concerns around the Green Patent Paradox by determining whether the patent holder is making the best use of the patent. If the patentee has no intention of using their patent to fill the market demand, then this factor would weigh strongly in favor of its fair use. Third, the court should look at the purpose and nature of the second-comer’s advance on the technology. This factor combines two of Dean Emerita O’Rourke’s factors211 and prompts the court to look at the secondary use itself. However, this part of the test is more tailored to the innovations in green technology. Ultimately, the crux of this factor is determining whether the secondary user’s use of the technology is meant to provide positive results for the sustainability market. For example, using lucrative solar panel technology that achieves an environmentally beneficial purpose can be deemed fairer than using an eco-friendly pet product that may be in a smaller potential market. Additionally, if the secondary user is mainly striving to achieve a particular sustainability standard for their innovative pursuit, rather than directly compete with the patent holder in the market, then this factor would weigh in favor of secondary use. Finally, the court should analyze whether permitting secondary use would drastically impact the interests of the patent holder or the green technology industry at large. Here, a court should consider the incentives, resources, and commercial interests of the patentee as well as the interests of the relevant green technology industries. If the patent holder has a legitimate reason to hold onto their patent rights, this factor would weigh strongly in favor of excluding the second-comer from using the technology without a license. Otherwise, this factor should be equally weighed together with the other three factors. (3) If the secondary user is a fair user, does justice require compensation for the patent holder? Because the second part of this proposal imposes a heightened standard against the patentee’s incentives, court-ordered royalties should remain an option much like Dean Emerita O’Rourke’s proposal.212 This part of the test recognizes that the fair use assessment is binary: secondary use of the green patent is either allowed or not allowed. Thus, awarding a modest, reasonable amount of royalties can offset any grievances that may arise if the patentee loses their exclusive right over the green patent at issue. Because the four factors in the second prong of this proposal are more strictly applied against the patent holder, rather than imposing the same four factors as Dean Emerita O’Rourke proposes, the court should instead determine on its own whether royalties should be awarded. However, depending on the capital and resources of the secondary user, these royalties should be limited so as not to chill the subsequent implementation of the green technology. B. Further Considerations This technology-specific proposal is designed to speed the process of implementing green technology in the U.S. while still recognizing that the patent scheme is inherently designed to promote innovation. Once secondary users are permitted to use patented green technology, they can actively work toward bringing the U.S. into a sustainable economy without fear of infringement action. Ultimately, the issues raised by the Green Patent Paradox would be resolved by this proposal, which seeks to streamline and advance outside innovation while ensuring patent holders arer sufficiently compensated. However, with any proposal, several considerations remain to be addressed. 1. The Patentee’s Rights Although this proposal directly addresses concerns surrounding the climate crisis, it must be acknowledged that many scholars are skeptical of both the expansion of patent rights beyond the patentee and the impact it would have on the patent incentive scheme.213 Patentees in the field of green technology have a particular incentive to hold onto their rights, especially companies with larger carbon footprints.214 Moreover, fair use of patented green technologies, unlike certain transformative uses of copyrighted works, would almost always be for commercial purposes. However, the overarching goal of this proposal is to change the dynamics within the green technology industry. As Dean Emerita O’Rourke points out, fair use would promote standard-setting whereby companies can set their own guidelines regarding the allocation of their intellectual property based on reasonable terms.215 Moreover, it would serve as a bargaining chip for licensing, which can reduce the royalty rate for second-comers.216 Hence, as this proposal promotes sharing within the private sector, companies can work together toward the common goal of combatting climate change. Another consideration involves whether to allow fair use if the patentee specifically refuses to license their patent to the infringer. In copyright law, a fair user of copyrighted work is still allowed to go forward with their derivative creation, regardless of whether the rightsholder denied that user permission.217 In recognition of the existential threat posed by the climate crisis, patent law should follow suit and bypass this potential concern. As previously mentioned, a patentee’s reasoning behind the refusal to license can be considered in the assessment of fair use or whether ongoing royalties should be awarded. 2. Implementation Additionally, even with fair use in patent law, the ITC’s independence from the federal judiciary remains a concern for expanding green technology to the market. Because of its independence, it is unknown whether it would incorporate fair use into its investigations, and thus, a plaintiff who loses in court may still use this alternate forum to preclude secondary use.218 To prevent a patent holder from utilizing other avenues to curb secondary use, this proposal will include guidelines on congressional action that would help establish boundaries on what the ITC can investigate regarding green technology. While it conducts its investigations, the ITC should recognize the global threat of climate change. Furthermore, because patents and trade secrets can protect the same subject matter,219 a prospective inventor could seek trade secret protection for their intellectual property to avoid the prospect of fair use by others.220 Thus, rather than apply for a patent, an inventor or company that invents a novel green technology could employ security measures to keep their idea secret and, in effect, the schematics of the invention would never reach public view and society would not benefit. However, trade secrets have their downsides as they can be difficult to enforce and risk losing their protections if others utilize the same idea.221 Additionally, from an investor’s perspective, the value of a patent is more tangible than the value of a trade secret.222 This realization is an important distinction given that green technology is a capital-intensive industry.223 Moreover, inventors in green technology industries can benefit from having their works made public because in the long run because public access “can support the diffusion and adaptation of existing green technologies that are in the public domain.”224 Lastly, concerns around timing need to be addressed. If Congress does not codify this proposal and leaves any developments to the courts, expansions of green technology will not accelerate at a necessary rate. Instead, a judicially created fair use doctrine for patent law may merely provide incremental change to green patents at best as it would only develop case-by-case through individual lawsuits.225 Regardless of whether federal institutions will initiate this proposal, industries at large should still strive to advance green technology at a rapid pace. Although inventors and entrepreneurs risk becoming defendants to patent infringement suits, eBay remains a shield for their technologies’ continued development.226 Eventually, the climate crisis’s growing threat will pressure the U.S. to tolerate transfers of patented green technology so that such technologies receive their highest and best use at the lowest cost to the patent holders and other users The world faces an imminent threat from climate change that requires drastic structural attention. The U.S. has always led the world in promoting and preserving global security, but political gridlock within the nation could stall the massive changes to steer the world in the right direction. Fortunately, the private sector has an equally important role and duty in the pursuit to reform various industries. However, while industry and entrepreneurship can further develop necessary green technology, a comprehensive transformation in the U.S. patent regime must take place in order to fix the inherent issues around secondary innovations. The Green Patent Paradox demonstrates that the patent system impedes innovation by allowing rights’ holders to sit on their patent rights further slowing the transition to an environmentally sustainable economy. Although eBay is a victory in that it helps encourage continued use of other patent holder’s green patents, the ITC functions as a loophole for patent holders who want to halt secondary users or pressure them to take unwanted licensing agreements. The public and private sectors have both revealed possible solutions in the wake of the climate crisis. While the public sector can fix the patent regime through various means, these solutions either have substantial barriers to becoming reality or pose implementation issues that inhibit inventor incentives. Even with goodwill gestures from large companies, not all businesses are positioned to donate their intellectual property. The doctrine of fair use does not exist in patent law under conceivable rationales even though many viable justifications support its application. However, the lurking effects of the climate crisis demonstrate the societal need to implement a system that tolerates secondary uses of patented green technologies.

#### The innovation disad doesn’t apply to new areas of research like climate tech – patent accessibility is key

Bernardini 21 [Jessica, JD from Lewis & Clark Law School, works at the small business legal clinic at the Patent Program at Lewis & Clark Law School, registered Professional Engineer and engineering consultant with focus on renewable energy development, “Leveraging Mandatory Licensing Under the Clean Air Act – A Novel Framework to Domestic Reduction of Greenhouse Gases,” *Environmental Law* 51.1, p.324-8, JCR]

The use of compulsory licensing would be especially valuable for forcing a patentee to work a patent in an area that is relatively new. Opponents of compulsory licensing believe it will reduce incentive for innovation and encourage inventors to maintain their knowledge as a trade secret rather than disclose through patents.153 And while obtaining a patent requires sufficient disclosure so that a “person having ordinary skill in the art” may practice the patent, disclosure (without actual reduction to practice and use in the industry) of newer technologies, such as carbon capture, is not as useful as it is for more established technologies. Consequently, in areas of newer technology, innovation is stifled when there is no practicing of the technology, which allows innovators to understand how the technology works.154 Especially in the case of newer technologies, compulsory licensing would actually support innovation by forcing the technology’s real-world application, thereby allowing other innovators to improve upon the technology. While the EPA has significant discretion in selecting a BSER, no existing precedent allows the EPA to establish regulations on the sole basis that a patent exists but has not been demonstrated to be technologically feasible, on even a very small scale. Therefore, the absence of a working requirement under the Patent Act jeopardizes the EPA’s ability to regulate GHGs.155 The Mandatory Licensing provision provides authority for the EPA to pursue mandatory licensing of patented technologies necessary to achieve emissions standards. Invocation of the provision does not require a showing that the patented technology has been adequately demonstrated.156 However, to establish the emission standards in the first place, the technology used to achieve the standards must have been adequately demonstrated (i.e. worked and put into practice even in some small fashion).157 If a technology has not been adequately demonstrated, it should not be considered by the EPA to be part of an emission reduction system.158 In this instance, a general compulsory licensing provision under the Patent Act would help work technologies, show them to be technologically feasible, and ultimately allow the EPA to consider them as part of a BSER. Opponents to compulsory licensing argue that it is unnecessary to invoke compulsory licensing to mitigate non-working of patents because inventors of useful inventions will want to recoup their investments and will do so through working or licensing of the patent.159 However, this argument fails to take into consideration that some entities will not want the patent to be put into use. When a patent is subject to use as part of an environmental regulation, its use would adequately demonstrate the patented material and make it readily available. Therefore, regulated entities would rather have these categories of patents suppressed in an attempt to avoid potential environmental regulation. Patent suppression by fossil-fuel companies has already occurred, as discovered by state prosecutors.160 The prosecutors were looking into whether fossil-fuel companies misled their investors by making statements dispelling climate change and the impacts that it would ultimately have on the companies’ viability.161 These investigations led to the discovery that these same companies patented carbon-capture technologies and never put them into use, suppressing them since the 1960’s.162 The non-working of patented carbon-capture technology is already occurring, possibly to keep patented technologies from EPA consideration. For example, Exxon has the highest number of patented carbon-capture technologies and is funneling millions into research,163 yet it does not operate any plant in the U.S. with large-scale carbon-capture. It is obvious that, with no regulatory driver to reduce carbon dioxide emissions and require the installation of carbon-capture technologies, industry will not utilize these technologies in the absence of a compliance threshold. The proposed framework provides a regulatory driver to implement the technologies. The emission threshold would deter patent suppression, and if not, then the second step of the framework— mandatory licensing—prevents suppression. Under the second step, the EPA would threaten to step in and require licensing of those technologies if industry was not willing to provide reasonable licenses to others in the industry. Refusal to license patents after the enactment of the new emission standards could have a detrimental effect on industry’s ability to comply with the strict standards. Once emission standards are in effect, patentees could reasonably license their patents to other industry participants without government intrusion or proceed to practice monopolistic market power. A refusal to license a patent could mean a unilateral outright refusal, or that restrictions on the patent use are unreasonable or the price to license is so prohibitive that it equates to an outright refusal.164 In the U.S., a refusal to license typically will not lead to a finding of monopolization unless there is a finding that the refusal is completely unrelated to the patent.165 It is unlikely that court-mandated compulsory licensing will be used to require licensing solely to address refusal to license or the use of monopolistic pricing. In Verizon Communications v. Law Offices of Curtis V. Trinko,166 the Supreme Court emphasized that “[t]he opportunity to charge monopoly prices . . . induces risk taking that produces innovation and economic growth.”167 Furthermore, monopolistic power alone is not unlawful, but rather it needs to be “accompanied by an element of anticompetitive conduct.”168 However, the Court goes on to clarify that, while the right to refuse to license with other firms may be allowed, it “does not mean that the right is unqualified.”169 Because the threshold for finding anticompetitive behavior by a patentee is quite high, it may be necessary to resort to statutorily authorized compulsory licensing to overcome monopolistic behavior and establish reasonable and fair licensing agreements. In addition to a refusal to license existing carbon-capture technologies, another opportunity exists for patent holders to further monopolize the market when existing patent holders build upon existing carbon-capture technologies. For example, companies are investing in research and development for scaling up and integrating carbon-capture into plant design, as opposed to retrofitting, and developing more integrated approaches to carbon-capture utilization.170 The ability to build upon existing patented technologies with no willingness to license (or work) these technologies is troublesome because these improvements will result in new patents which will be valid for up to another twenty years, the critical time period necessary for deployment of technologies that reduce emissions contributing to climate change.171 Even though statutory compulsory licensing has never been invoked by the government, some individuals contemplate the threat of compulsory licensing when considering the cost of their innovation.172 Their concern is that the government will step in before they can recoup their research and development costs. The potential negative effect of compulsory licensing on the incentives for innovation could be outweighed by the positive impact on innovation for an industry as a whole, particularly in the context of climate change action.173 The potential threat of compulsory licensing alone may be enough to encourage entities to license on more flexible terms to avoid governmental intrusion.174

#### If the federal government doesn’t act, the states will – and it will destabilize the entire patent system.

Mazur 07 [Tanya, attorney specializing in intellectual property law, winner of the Southern California Rising Star award in Intellectual Property Litigation, “Free for the ‘Taking’: Why States Should Not Be Able to Invoke Sovereign Immunity in Patent Infringement Disputes,” *The George Washington Law Review* 75.2, p.398-9, JCR]

There is a crisis looming on America’s horizon, whether in the form of bioterrorism, an avian flu pandemic, or the bankrupting of the federal government due to the aging population’s need for health care. All of these crises demand widespread access to patented inventions, such as pharmaceuticals, to prevent the enormous suffering of Americans. Emergency situations, such as the flu pandemic, will require production of patented products on a scale so massive that it would require circumventing a patent’s normal protections.2 Even the aging baby boomer population’s need for access to low-cost prescription drugs through programs like Medicare could be considered an emergency situation.3 Never before has the health and well-being of our nation been so inexorably linked to patented inventions. In recent years, Congress has attempted to address the coming crises and has proposed a number of changes to the patent laws; these changes, however, have failed to provide adequate solutions.4 States, therefore, are becoming increasingly proactive with regard to their residents’ needs in these crisis situations and are beginning to look to a loophole created by the Eleventh Amendment that exists in the patent laws.5 This loophole threatens to destabilize the United States’ incredibly successful patent system and the hundreds of years of technological innovation this system has provided to the nation.6 This Note examines the delicate balance between the public’s need for ready access to patented goods and the patent protections necessary to promote innovation, within the framework of the present patent system. Also discussed in this Note are problems that result from the approaches to patent “takings” and compulsory licensing that states and local governments have begun to employ. This Note proposes a vital amendment to the patent laws that would alleviate the aforementioned crises while still encouraging innovation and protecting the basic tenets of the patent system. Furthermore, this Note advocates that state sovereign immunity in patent cases be abrogated to curtail states’ abilities to impose compulsory licenses upon patent holders. By allowing only Congress to wield the power to extract compulsory licenses, rather than state or local governments or officers or appointees of the executive branch of the federal government, this proposal protects the sanctity and stability of the patent system. This protection furthers the aims of the Constitution and fosters the progress of the useful arts and sciences. In cases of national emergency, however, Congress would retain the authority to implement takings or compulsory licensing of patents.

### TRIPS

#### ‘Refusal to license’ has kept climate tech out of the hands of developing countries

Qin 18 [Dong, Assoc Prof at Nanjing Univ of Information Science & Technology, “After Paris: Do we need an international agreement on green compulsory licensing?” in *The Implementation of the Paris Agreement on Climate Change*, ed. Vesselin Popovski, p.183-7, JCR]

This patent suppression behaviour has many negative impacts on technology research, development and diffusion. For example, many patentees build patent thickets, which are thick patent webs consisting of various related and overlapping patents, so that their competitors will have much more trouble researching and developing new technologies. Facing patent thickets, firms can require access to dozens, hundreds or even thousands of patents to produce just one commercial product20. The most troublesome quality of a thicket is the risk that one may not be able to conclusively determine that all of the patents have already been read on a product or service21. Relevant patents can pop up and catch even sophisticated manufacturers by surprise22. Addressing this awkward situation, the Secretary General of the United Nations pointed out that the rise of strategic patenting and a series of legislative changes to expand monopoly rights had led to a very complex system of patents, which was increasingly geared to support the rights of incumbent large firms over new, smaller, innovative firms23. Additionally, the system in many countries had moved from its original objective of stimulating innovation through the provision of incentives to innovators, to preventing new domestic and foreign market entrants24. In many green industries, core technologies have already been monopolized by a few large companies. For example, the technologies in hybrid vehicles are very important for developing countries in reducing greenhouse gases under the Paris Agreement. However, more than 90% of patents in hybrid vehicles belong to companies in the United States, Germany and Japan25. It is very difficult for developing countries to get access to these technologies at affordable prices. In the field of LED, a kind of low-carbon light, some companies in developed countries monopolize most of the core technologies and never permit companies in developing countries to use their patents. Because of patent suppression, the technology gap between developing countries and developed countries keeps widening. On the one hand, patenting rates for clean energy technologies have increased faster than for other sectors, at a rate of about 20% per year since the adoption of the Kyoto Protocol by the United Nations Framework Convention on Climate Change, in 199726. On the other hand, most green technology patents continue to be controlled by only a few developed countries. According to statistics provided by the Secretary-General of the UN, six developed countries, including Japan, the United States, Germany, the Republic of Korea, the UK and France, account for almost 80% of all patent applications in clean energy technology27. Some other statistics show that developing countries own too few high-value inventions in the field of climate change technology. Taking China and Brazil as examples, the former owns only 2.3% high-value inventions in the field of climate change technology and the latter owns only 0.2%. Although green patent suppression is now very serious and has become an important barrier to technology transfer, it is not right to jump to the conclusion that the governments of parties to the UNFCCC are devoid of political willingness to deal with it. On the contrary, these governments have already shown some resolve on removing barriers to the international transfer of green technology. Article 4, para. 5, of the UNFCCC states that the developed countries shall take all practicable steps to promote, facilitate and finance the transfer of environmentally sound technologies to other parties, particularly developing countries, to enable them to implement the provisions of the Convention. Article 5 of the UNFCCC also states that the parties shall support international and intergovernmental efforts to strengthen national technical research capacities and capabilities, particularly in developing countries. Moreover, Article 10 of the Kyoto Protocol also rules that all parties shall take all practicable steps to promote, facilitate and finance the transfer of environmentally sound technologies pertinent to climate change, in particular to developing countries. The parties of the UNFCCC tried to develop more detailed plans to promote the international transfer of green technologies after the signing of the Kyoto Protocol in 1997. For example, the Conference of the Parties, on its seventh session held in Marrakesh from 29 October to 10 November 2001, made the decision on development and transfer of technologies (Decision 4/ CP.7)29. According to this decision, the parties would establish an expert group on technology transfer, the objective of which was enhancing the implementation of Article 4, para. 5, of the Convention, including, inter alia, by analysing and identifying ways to facilitate and advance technology-transfer activities. The decision also decided to urge developed country parties to provide technical assistance through existing bilateral and multilateral co-operative programmes. The decision even provided a framework for meaningful and effective actions to enhance the implementation of Article 4, para. 5, of the Convention30. According to the framework, all parties of the UNFCCC were urged to improve the enabling environments for technology transfer, which focused on government actions, such as fair-trade policies, removal of technical, legal and administrative barriers to technology transfer, sound economic policy, regulatory frameworks and transparency. Although many efforts have been made by the international community to promote international transfer of green technologies, the results are quite disappointing. For example, the Kyoto Protocol created the Clean Development Mechanism (CDM) to help developing countries to contribute to the ultimate objective of UNFCCC. According to Article 12 of the Kyoto Protocol, developing countries will benefit from CDM project activities resulting in certified emission reductions. Other countries that have qualified greenhouse gas reduction obligations may use the certified emission reductions accruing from s project activities to contribute to compliance with part of their own quantified emission limitation and reduction commitment. When the Clean Development Mechanism was designed during the negotiations of the Kyoto Protocol, almost all parties of the UNFCCC expected the mechanism to be a helpful tool in promoting green technology transfer between developed countries and developing countries. In fact, it was estimated that about 26% of the projects in relation to the CDM would involve at least some kind of technology transfer31. However, the results have proved very frustrating. Statistics shows that only 0.6% of projects involved technology transfer and the contribution of the CDM to technology transfer can at best be regarded as minimal32. Of course, the reasons for the frustrating results are many, but undoubtedly one of them is that some entities who own advanced green technologies have strong IP protection tactics, including building patent thickets, so that others have little opportunity to get technologies relating to their CDM projects. Yet another important reason why many efforts of the parties of the UNFCCC have been frustrated is that they only aim to regulate the behaviour of governments rather than the behaviour of patentees. However, the fact is that patentees, rather than governments, have the final say in green technology transfer. The right of patentees to refuse to share their patents with other people is strictly protected by the international intellectual property rights system. According to Article 28 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), where the subject matter of a patent is a product, the owner of the patent has exclusive rights to prevent third parties from the acts of making, using, offering for sale, selling or importing for these purposes that product unless they have the consent of the owner. Where the subject matter of a patent is a process, the owner of the patent has exclusive rights to prevent third parties from the act of using the process unless they have the consent of the owner. Accordingly, the problem of green patent suppression can never be solved if the parties of UNFCCC cannot manage to improve the current IP system. If the owners of green technologies neither use their technologies nor permit others to use their technologies to reduce greenhouse gases, the goal of the Paris Agreement can never be fulfilled. If we want to make the Earth, which is becoming warmer and warmer, safer for us to live, attention should be paid not only to the protection of the private interests of patentees, but also to the protection of public interests.

#### This puts the US in breach of international obligations, which collapses climate treaty implementation globally – IP is the bottleneck

Zhou 19 [Chen, Assist Prof in the Law School of Xiamen Univ, “Can intellectual property rights within climate technology transfer work for the UNFCCC and the Paris Agreement?” *International Environmental Agreements: Politics, Law and Economics* 19.1, p.108-10, JCR]

Climate change is a well-researched issue both scientifically and in terms of legal scholarship. It is widely recognized that technological solutions play an important role in climate mitigation and adaptation. Due to historical and practical reasons, relevant technologies are distributing unevenly across the world.1 To combat climate change, the wide and rapid diffusion of such technologies is in the global self-interest (Watal 2010: 14). There is evidence that technology transfers increase the incentives for participation in multinational environment agreements (MEAs) (Shephard 2007: 10548). In the context of climate change, the United Nation Framework Convention on Climate Change (UNFCCC 1992) requires industrialized countries to facilitate technology transfers to developing countries to enable them to minimize their emissions of greenhouse gas emissions (GHGs). The 2015 Paris Agreement (Paris Agreement 2015) emphasizes this once more as it further commits the Parties to strengthening cooperation on climate technology. However, in reality, state-of-the-art climate mitigation and adaptation technologies are not being automatically transferred through business-as-usual practices where traditional legal protection of intellectual property (IP) operates under the Climate regime. In the light of the growing urgency of climate risks and damage and the emerging recognition of the potential violation of human rights, it is critical to examine what is the key bottleneck to technology transfer and how this can be addressed. Hence, this article explores how IP laws can be used by climate change policymakers in the post-Paris era to enhance technology transfer. To capture the entire picture, I use a statutory perspective to summarize and analyse the UNFCCC (see Sect. 2) and the WTO (see Sect. 3), the legal setting in which climate technology transfers operate, and explore possible solutions to situate IP in the context of climate change. In the context of climate change, technology transfer is predominantly regulated by the UNFCCC. Designed as a broad framework to comprehensively deal with the climate crisis, the UNFCCC has, since 1992, endeavoured to reduce GHG emissions through a range of solutions.2 As early as 1992, the UNFCCC shed light on technology as a solution by framing technology development and transfer as an essential international assistance tool. Two core articles were laid down to facilitate technology transfer: Article 4.5 and Article 4.7. Article 4.5 is cited as a classic clause and has been placed at the heart of the technology transfer commitment system.3 It obliges the developed country Parties of the UNFCCC (Annex I countries) to commit to technology transfer in order to fulfill the principle of common but differentiated responsibilities and respective capabilities. This principle aimed at substantive equity, international solidarity and assistance. To further confirm this commitment, Article 4.7, known as the conditionality clause, made the fulfilment of the developing countries’ commitments conditional on actions taken by developed countries.4 Under this Article, the developing country Parties could suspend the Convention’s implementation if the developed country Parties did not provide technology transfer and financial assistance. Therefore, it can be said that the conditionality clause makes technology transfer absolutely indispensable for the effective implementation of climate change agreements. A violation of the provisions on technology transfer might consequently constitute a material breach and would conflict with the purpose and objective of the Convention (Verhoosel 1998: 66).

#### The US leverages the WTO/TRIPS Agreement to block patent access – application of antitrust allows legal triggering of compulsory licensing

Ni 15 [Kuei-Jung, Prof of Law at the National Chiao Tung University School of Law’s Institute of Technology Law, “Legal Aspects (Barriers) of Granting Compulsory Licenses for Clean Technologies in Light of WTO/TRIPS Rules: Promise or Mirage?” *World Trade Review* 14.4, p.708-17, JCR]

The concept of developing countries granting themselves compulsory licenses and gaining access to climate-related technologies was an unwelcome, or even disturbing, proposal for developed countries and their resident companies who hold the IPRs for these technologies.32 They disagreed with the statement that an IPR constitutes a barrier to technology transfer and instead argued that poor IPR enforcement and high tariffs on environmental products should be blamed for the stalemate on transfers.33 On the basis of various promising instances in which Western companies have transferred clean technologies to and deployed them in emerging markets, Lane remains skeptical of the rhetoric that claims IPRs to be an obstacle to technology transfer and dissimilation.34 Thus far, the compulsory licensing of clean technologies seems not to have occurred, despite strong appeals by developing countries for the use of this mechanism. Although the UNFCCC does not have applicable rules specifically pertaining to the use of compulsory licenses per se, the WTO/TRIPS forum appears eligible to govern them, especially regarding the negotiation of a new agenda and law enforcement. The UNFCCC is the major global forum through which developing countries have consistently proposed using compulsory licenses as one means, among others, of gaining access to clean technologies. However, the climate regime does not specify any binding rules or disciplines for regulating the application of such a measure. Instead, the WTO/TRIPS is the competent regime governing the use by national authorities.35 In effect, all WTO members must guarantee that their national laws and measures relating to compulsory licenses are in compliance with the TRIPS obligations in question.36 During the mid-1990s, under the threat of economic sanctions resulting from US Section 301, the GATT Uruguay Round negotiations finally resulted in crafting comprehensive and multilateral protection for IPRs, which operates with an effective dispute settlement mechanism.37 The effectiveness of the TRIPS Agreement represents a triumph for developed countries, particularly the US, which have long called for strong global IP protection. The TRIPS Agreement specifies a minimum threshold of IP protection and enforcement by WTO members.38 To balance the rights of IP owners, most of whom are from developed nations, with the interests of general users and developing countries and to pursue members’ legitimate public objectives, certain measures limiting the prerogatives of IP owners are permissible, especially regarding their monopoly rights. A patentee may prevent others from using a patented technology before the patent expires.39 However, Article 30 of the TRIPS Agreement provides for exceptions to this right. In addition, patentees who are not using the patent themselves may authorize others to make use of their protected subject matter by voluntarily signing a licensing agreement.40 The freedom of contract that individuals and firms have in choosing their partners and deciding the content of deals would be constrained by the governmental authorization of compulsory licenses to other users. Article 31 of the TRIPS Agreement specifies the rules for implementing such licenses.41 An analysis of the structure of Article 31 of the TRIPS Agreement indicates that the provision does not explicitly provide grounds on which compulsory licenses can be based but simply specifies the 12 conditions with which WTO members ought to comply. All conditions are obligatory. Although the incorporation of compulsory licenses into the TRIPS Agreement is part of a balancing act for countering the predominant power of patentees, such a move should not be interpreted merely for the convenience of developing countries.43 The use of compulsory licenses is not intended to be a ‘free lunch’ because the challenges associated with observing the requirements are quite severe and the costs of implementing the collateral duties may be relatively high. The following sections first examine whether a new declaration or similar document is likely to be finalized to underpin developing countries’ proposal. The focus is then on the legal challenges in, and obstacles to, complying with the TRIPS obligations with reference to the compulsory licensing of Philips CD-R patents, which can serve as a benchmark practice. In response to the HIV/AIDS health crises affecting many developing countries, the WTO adopted the Declaration on TRIPS Agreement and Public Health at its 2001 Fourth Ministerial Conference in Doha. The conclusion of the agreement exemplified how the global IP regime can support, rather than hinder, access to the affordable medicines, most of which are covered by IPRs. Regardless of its legal status,44 the Declaration provides developing countries with powerful leverage and flexibility when interpreting and implementing their TRIPS obligations. The flexibilities elaborated by the Declaration consist of compulsory licenses. First, the right to grant compulsory licenses and the freedom to determine the grounds on which to do so are recognized.45 Second, the Declaration confirms the right of WTO members to define the circumstances that constitute a national emergency and explicitly equates public health crises to national emergencies.46 Third, because many members have insufficient manufacturing capacities, the Declaration requested that the TRIPS Council sort out a solution that makes compulsory licenses more effective for these countries.47 Overall, the flexible approach streamlines the compulsory licensing with a view to promoting access to essential drugs. The Doha’s position on global IP enforcement presents an opportunity for balancing private property rights with other societal values, such as human rights and environmental protection. The mandate on IP and public health signals that multilateral trade negotiations and law-making processes can accommodate the interests of developing countries when their demands are on strong moral and legal grounds. The successful experience in Doha provides momentum for developing countries to pursue other similar goals. Although the appeal for adopting a TRIPS declaration on IP and climate-related technologies seems acceptable, at least morally, the feasibility of concluding a similar text as for public health, especially in the WTO community, remains in doubt. From the perspective of international politics, the WTO members’ lack of political will to earnestly negotiate seems unchanged.48 In addition, as opposed to the mandate of the Doha Declaration, most free trade agreements (FTAs) concluded by the US after 2001 have constrained the use of compulsory licenses.49 The prevalence of alleged TRIPS-plus arrangements in US-initiated FTAs heralds greater difficulties ahead for adopting a new declaration on TRIPS-related social concerns at the WTO. Without the support of the US, it would be difficult to achieve a result that facilitates access to climate-related technologies in multilateral trade negotiations. Discrepancies between access to medicine and access to clean technologies and their products may create obstacles for constructing a new declaration. The possible discrepancies can be divided into three parts (Table 1). First, accessing patented drugs appears unaffordable for the public in developing countries, but whether climate-related technologies are too expensive is uncertain. Second, regarding emergency levels, there are strong moral and legal grounds for protecting people from public health crises by, among other approaches, using compulsory licenses as flexibly as possible. Without access to essential drugs, millions of people could die. However, climate change, despite its considerable impact on human society, is a gradual process and not an emergency similar to that of HIV/AIDS.50 In addition, the effective use of compulsory licenses depends on the presence of a competitive local production capacity. Given the relative infancy of climate-related technologies,51 manufacturing capacities for these products may be more insufficient or entirely absent in many developing countries. This limitation could make granting compulsory licenses less fruitful.52 By comparing the distinctive features of pharmaceutical and clean technologies, McManis and Contreras emphasize that market and patent coverage factors may considerably diminish the effects of green compulsory licensing as opposed to that of essential medicines.53 Thus, they are skeptical that ‘an international accord modeled on the Doha Declaration is achievable or desirable in the area of clean technologies’. 54 The authority to grant compulsory licenses lies with governments but is subject to a number of conditions that each WTO member is required to observe. The requirements, listed under Article 31 of the TRIPS Agreement, impose strict discipline on the members and provide competent national authorities with limited discretion. Observing the obligations is a twofold task: first, national authorities must determine the grounds on which such licenses are granted; second, they must fulfill each of the listed conditions, which begin with an appeal for granting the licenses in question and end on their termination. Article 31 does not explicitly regulate the right of members to stipulate the grounds for resorting to a compulsory license, nor does it provide definite parameters for determining the scope of the grounds, apart from the grounds for semiconductor technology.55 Such an omission causes ambiguity concerning the legality of the grounds chosen by national authorities under the TRIPS Agreement. During the Uruguay Round negotiations, most developed countries, including the US, favored a restrictive approach allowing only for matters of anti-trust, public non-commercial use, and national emergencies to legally trigger such licenses.56 In contrast, developing nations argued for an open approach under which there would not be any constraints regarding setting the grounds. In the end, the proposal to limit the grounds for issuing a compulsory license was not adopted. Instead, the final text on compulsory licenses focused on procedural matters and the substantial conditions to be observed.57The TRIPS preparatory work may support the assertion that the drafters had no definite intention of limiting the scope of the grounds.58 Subsequent developments regarding the interpretation of the TRIPS Agreement, particularly evident in the 2001 Doha Declaration, endorse the views of developing countries. However, the controversy regarding the legal status of the Doha text persists, and no judicial decisions have yet been made by the WTO relating to its legal authority. The US considers the Declaration to be a political statement that lacks any binding power on WTO members.59 By contrast, because the Declaration was adopted by consensus, developing countries claim that it represents a genuine and legitimate expectation among WTO members. Despite this disagreement, many academics consider the Declaration as a subsequent agreement that facilitates the interpretation of the TRIPS provisions in question.60 Irrespective of its function for treaty interpretation, debate continues regarding whether the Doha document can shape fields beyond the contexts of IP and public health. Countries in the midst of public health crises may encounter fewer challenges when availing themselves of the TRIPS flexibilities; however, when addressing situations that do not clearly represent public emergencies or that lack nearly uniform public support, a government’s selection of grounds may be severely questioned. Certain grounds specified in the patent laws of many developing countries are applied to balance the prerogatives of patent owners, such as their refusal to deal, failure to produce locally, and failure to obtain licenses under reasonable terms.61 The legality of invoking such grounds appears quite controversial. De Carvalho is strongly skeptical of the contention that countries are free to decide any grounds or can grant licenses on frivolous grounds.62 Considering that the use of compulsory licenses constitutes an exception to the normal exercise of patent rights, he argues that the grounds should be confined to exceptional or critical situations, such as national emergencies and public non-commercial use.63 According to de Carvalho’s argument, compulsory licenses should not be pursued to remedy individual benefit at the expense of eroding patentees’ right to license voluntarily (i.e., ‘say no to third parties’).64 Therefore, commercial disputes between licensees and patent owners, such as disputes over a refusal to license or failure to reach reasonable commercial deals, should not constitute a sufficient cause.65 After a Taiwanese business failed, after a considerable amount of time, to obtain licensing under reasonable commercial terms and conditions from Philips, the Taiwan Intellectual Property Office (TIPO) decided to grant compulsory licenses of the Philips CD-R patents to the local company. The action incited the critical complaints of both the patentee and the EC. The CD-R technologies and correlated patents were owned by Philips, which had acquired patent protection from the Taiwan Intellectual Property Office (TIPO) during the late 1980s.66 By the 1990s, CD-R production in Taiwan had increased considerably, with most production being licensed by Philips.67 However, Gigastorage, a Taiwanese CD-R manufacturer, was unable to reach a licensing deal with the patentee because of a disagreement over royalty rates. TIPO reviewed the appeal of Gigastorage for compulsory licensing of Philips’ five patents and determined the situation facing Gigastorage matched the grounds in question. TIPO’s interpretation as to what amounted to a reasonable commercial term was mainly subject to alleged suitable royalty rates. After reviewing the opinions and findings of public officials and professional institutions, TIPO concluded that Philips’ offer was not a fair and reasonable royalty arrangement.68 Because Gigastorage had spent almost a year engaging in negotiations with Philips, TIPO was satisfied that the period of negotiations had been considerable. In July 2004, according to Taiwan’s Patent Act,69 the decision of TIPO to grant the compulsory licenses was rendered.70 The EC protested that the reason used for triggering the compulsory licenses was a violation of the TRIPS agreement. The EC’s argument was largely based on a textual analysis and was offered with a view to preserving the patentee’s right to license voluntarily. First, the EC argued that Taiwan’s granting of compulsory licenses based on a failure to reach reasonable terms would diminish the protection extended to patent holders and that this effect conflicted with the essence of Article 28 of the TRIPS Agreement. In analyzing Article 28, the EC contended that the provision bestows on patent owners a freedom to license, which inherently carries with it a right to refuse to negotiate.71 Furthermore, the EC emphasized that Article 28 does not obligate patentees to engage in a licensing agreement but rather clearly states that patent owners have a right to do so.72 Second, the alleged ‘failure to obtain reasonable commercial terms’ was strictly categorized by the EC as a procedural condition as opposed to a substantial condition, which is one of the grounds for granting compulsory licenses. Because such a condition is explicitly specified in the first sentence of paragraph (b) of Article 31 as a procedural rule to be observed prior to an authorization of compulsory licenses, the EC insisted that it fell outside of what might be considered substantial grounds. The second sentence of the same paragraph stipulates that the obligation of WTO members to obtain licenses (voluntarily) under reasonable commercial terms in advance may be waived in the event of a national emergency or for public non-commercial use. According to paragraph (k), the members’ obligation to observe such conditions can also be waived when addressing an anti-trust situation. Reading the text restrictively, the EC insisted that Article 31 embodies the intent to distinguish such procedural elements from substantial grounds.73 Thus, the EC concluded that Taiwan’s allowance of Gigastorage’s failure to obtain licenses under reasonable commercial terms as grounds for issuing compulsory licenses was illegitimate. Climate change is a grave global concern; however, as mentioned previously, it may not, in terms of national emergencies, be universally recognized as equivalent to a global public health crisis because it affects countries differently and the problem persists over a long time frame. Some nations, such as small Micronesian island states, are obviously more vulnerable to the effects of climate change, whereas particularly well-developed countries can prove more resilient and adaptive to the challenges. Thus, most developed countries may not be persuaded by the arguments of developing countries and rising powers such as China and India, which attempt to equate the threat of climate change with more immediate national emergencies. Of course, the restrictive European approach toward establishing convincing grounds is open to dispute. In addition, whether a refusal to license or intransigence in negotiations on the part of rights holders constitutes sufficient reason to grant compulsory licenses remains controversial. It has been observed that the practice of refusing licensing for climate-related technologies may grow more common as companies find it profitable to invest in the technologies and ‘thus seek to maintain their competitive advantage’. 74 As tensions between developing countries (including their local companies) and climate-related technology owners increase, undercutting those IP rights by resorting to compulsory licenses under the guise of mitigating global warming will certainly provoke serious complaints from the governments of developed countries. Developed countries will not always ignore the granting of compulsory licenses on technologies critical to their industries and may opt for further legal action. The challenges to Taiwan’s authorization of the use of the Philips CD-R patents, as mentioned previously, could have become an international litigation brought to the WTO mainly because the format of the EC’s trade barrier report nearly constituted a complaint submitted to the WTO. More importantly, the proceedings that occurred both locally and internationally as a whole provide a vivid example of how difficult it is for a WTO member to satisfy the requirements for issuing compulsory licenses under the TRIPS Agreement.

#### TRIPS has become an instrument of economic colonialism by reinforcing Western notions of IP – this has become a legal basis for political and economic pressure on independent states.

Rhanaian 10 (Andreas, University of Glasgow - School of Law, Neo-Colonial Aspects of Global Intellectual Property Protection, The Journal of World Intellectual Property, Vol. 12, No. 1, pp. 40-74, 2010 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1629228>, MAM)

The TRIPs Agreement and the long-established intellectual property conventions which it incorporates serve as an essential device in the building and strengthening of an **informal empire of economic colonialism** by the industrialised nations in the non- Western world. These international instruments introduced or **reinforced Western style i**ntellectual **p**roperty rights in non-Western countries according to minimum standards which predominantly advance the interests of the intellectual property producing and -owning industrialised nations. One justification for this development has been the promotion of global technology transfer; an argument which overlooks the economic and social imbalances between industrialised and developing countries. Actual technology transfer is thus far less effective than perhaps envisaged. In fact, the principal concern in the drive for global intellectual property protection of a Western nature and Western level is the successful enforcement in developing countries of intellectual property rights which originate in the West or are owned by enterprises of industrialised nations. The intellectual property-owning enterprises are often large multi-national corporations which are able to wield impressive power by asserting worldwide their intellectual property rights that are backed by international conventions. These conventions are, in turn, **the legal basis for political and economic pressure** on formally independent and sovereign states. In this way, an informal system of socio-economic dependence with similarities to the colonial era is established. Formal imperialism has come to an end with decolonisation, but informal economic colonialism continues to exist and increases in its importance, and intellectual property rights play a far more significant role in this process than in the past. Informal colonialism does not seek formal political control in the dependent states, most commonly developing countries. This phenomenon can therefore be termed as neo-colonialism as opposed to the historical situation in the formal colonial (and later imperial) epoch, when, unlike today, national pride, international political power and prestige were at least as important as commercial success. Modern informal neo-colonialism establishes a network of economic, social, and consequently political, dependence which is increasingly based on licensing and enforcement of intellectual property rights. Western countries, especially the United States, now constantly press for higher levels of intellectual property protection **beyond** the standards of **TRIPs** in bilateral agreements and thus **consolidate the framework of dependence**. Connected with the present tendency towards the expansion of exclusive rights is another, less apparent, neo-colonial legislative project: the protection of “traditional cultural expressions”, in so far as this term is understood in the limited sense of what Western lawyers would loosely associate with traditional art and the scope of copyright protection. Again, this idea reflects colonial features. The protection of the “tradition” (essentially a Western construct) in fact creates this tradition and serves Western interests, and is to be administered by organs of the indigenous community in a kind of indirect rule. Modern non-Western art and its potentially critical force can in this way be defused, and the worldwide commodification of “ethnic” and “traditional/authentic” artefacts can be pursued even better, though with a moral label. The requirement of ascertaining the members of the indigenous community, the intended beneficiaries of this protection, invites racialist and segregationist legislation if this measure wants to be effective at all.

#### The US stance generates massive political tension – countries will impose their own antitrust laws, leading to regulatory uncertainty and trade retaliation

Sarnoff & Chon 18 [Joshua, Prof of Law at Depaul College of Law, served as a Distinguished Scholar at the US Patent and Trademark Office, Margaret, Prof for the Pursuit of Justice at the Seattle Univ School of Law, “Innovation Law and Policy Choices for Climate Change-Related Public-Private Partnerships,” *The Cambridge Handbook of Public-Private Partnerships, Intellectual Property Governance, and Sustainable Development*, eds Margaret Chon et al, p.265-7, JCR]

As stated earlier, many people and institutions have recognized the unequal technology transfer framework for climate change and energy innovation. To address these concerns, numerous changes, some highly controversial, have been proposed to the global patent regime.130 These include: broad, categorical exclusions of environmentally sound or climate friendly technologies from the patent system; and regulation of licensing and market behaviors, including compulsory licensing, antitrust scrutiny, and price controls.131 These direct means of regulating prices and competition will remain legally available to governments that hope to induce – but may be forced to compel – more favorable licensing and pricing practices than would voluntarily occur.132

\*\*\*Begin Note 132\*\*\*

Concerns over IP rights and climate change technologies have already caused significant political tensions. At an earlier stage of international negotiations, the UNFCCC Ad Hoc Working Group on Long-term Cooperative Action (WG-LCA) considered various proposals that had been suggested by some countries in the South. These measures would have placed significant restrictions on the traditional operation of the patent system. The measures ranged from requiring patent pooling and royalty free compulsory licensing to excluding green technologies entirely from patenting – even retroactively revoking existing patent rights. See, e.g., Ad Hoc Working Group on Long-Term Cooperative Action Under the Convention, Ideas and proposals on the elements contained in paragraph 1 of the Bali Action Plan, 23 UNFCCC (2009); Ad Hoc Working Group on Long-Term Cooperative Action Under the Convention, Report of the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention on its Seventh Session, UNFCCC Doc. No. FCCC/AWGLCA/2009/14, 156 (2009).

\*\*\*End Note 132\*\*\*

Although further amendment of the WTO Agreement on Trade Related Aspects of Intellectual Property (TRIPS Agreement) – as has been discussed by the United Nations Secretariat133 – is a theoretical possibility, consensus for adopting amendments in the short term is highly unlikely. Without such treaty amendments, countries (particularly those in the developing South) may seek to make greater use of existing TRIPS Agreement flexibilities to tailor their patent doctrines to assure access and to lower costs. They may adopt exclusions from patent eligibility, exceptions to patent rights, and alternatives to private licensing (such as a global technology pool). They also may expand access to publicly funded technologies to better promote technology development, transfer, and use.134 These options may provide greater ex ante predictability “in accessing technologies and [may] further enable much-needed research and development for local adaptation and dissemination, which would further reduce the cost of the technologies.” 135 Governments addressing private refusals to license patented technologies or high prices for access to those technologies may regulate such conduct directly, by adopting compulsory licenses or by imposing price control regulations.136 Alternatively, they may regulate such conduct indirectly, by treating restrictive or costly licensing as a competition violation (for example, as an abuse of dominant position) or by treating the patents themselves as essential facilities (that is, as products or services that are considered competitive necessities and for which access also can be required by compulsory licenses).13 Such direct or indirect regulation, moreover, may be largely ineffective in regard to assuring transfers of tacit knowledge.138 Both direct and indirect approaches to regulating access and prices will be highly controversial, and may threaten substantial trade retaliation or may prompt withholding by businesses of technology and foreign investment. Compulsory licensing, price regulation, and antitrust treatment have been repeatedly resisted by the United States and (somewhat less so) by other developed countries, particularly in foreign markets where the countries do not bear the costs but reap the benefits of technology exports.139 The developing South may be unwilling to resist such trade pressures, even if the threats and trade sanctions would be found illegal under WTO rules.140 These legal and political constraints bring us to proposals discussed in the next Part of this chapter, which emphasize private sector, voluntary initiatives to increase access and technology transfer, within a context of public sector laws and policies that promote innovation and access.

#### Wrecks the green tech market – need consistency to provide regulatory certainty

Choi 20 [Jay, University distinguished Prof in the Dept of Economics at Michigan State Univ, Prof in the School of Economics at Yonsei Univ, “Competition Law and Economics: International cooperation and convergence in competition policy,” in *Competition Law and Economics: Developments, Policies and Enforcement Trends in the US and Korea*, ed Jay Pil Choi et al, JCR]

Thus, it is a welcome development that more countries are adopting competition laws and plan to implement competition policies. For instance, when the International Competition Network (ICN, hereafter) was formed in 2001, only 16 competition agencies from 14 developed countries were participating members. The number now stands at 126 competition agencies from 111 jurisdictions (as of April 26, 2013).1 One of the most noteworthy developments on this front is China’s adoption of the Anti-Monopoly Law (AML), which took effect on August 1, 2008 after more than 10 years of drafting. However, promulgating competition law and setting up a competition agency, however, are not enough. In fact, mushrooming competition agencies in every country may turn out to be counterproductive if competition laws are applied in an inconsistent manner. As the globalization of the world economy entails a growing interdependence among national economies, a nation’s competition policies are no longer confined to domestic firms within the nation’s jurisdiction. With the prominence of multi-national firms, what counts is not the nationalities of firms but the locus of their economic effects. Antitrust authorities often take action against foreign firms if the firms affect competition in their jurisdictions. As a result, it is a distinct possibility that multinational firms may be subject to contradictory policies in the absence of policy harmonization among countries, which may significantly add to the complexity and costs of doing business and severely hamper the proper functioning of the market economy. In this paper, I discuss several issues that arise with “decentralized” enforcement of antitrust across jurisdictions due to the proliferation of independent antitrust authorities. These issues necessitate harmonization and coordination of policies in antitrust enforcement. However, divergence in economic conditions and policy goals in different jurisdictions presents a stumbling block in achieving harmonization in antitrust enforcement. Thankfully, economic analysis has a common methodology that is applicable across national boundaries in the assessment of antitrust enforcement effects. Antitrust law enforcement thus should be effects-based and be guided by the economic model of competition. The rest of the paper is organized as follows. In section II, I discuss potential pitfalls of antitrust proliferation with a focus on enforcement externalities. Section III considers specific enforcement areas in which enforcement externalities pose a serious problem. Section IV considers potential pathways to achieve policy harmonization across jurisdictions. I also briefly comments on the use of economics as a facilitating analytical tool in the harmonization of antitrust enforcement. Concluding remarks are contained in section V. The proliferation and potentially independent implementation of antitrust enforcement across more than a hundred different jurisdictions can lead to a variety of problematic issues, especially when the rules and enforcement procedures vary across jurisdictions. I will discuss some of the most important issues below, which call for harmonization of antitrust rules and cooperation among enforcement agencies. With the globalization of the economy and many multinational firms operating in so many different jurisdictions, the effects of an antitrust enforcement activity in one country is not necessarily confined to the country of enforcement. This often leads to what Geradin (2009) calls the “Strictest Regime Wins” problem and the risk of overregulation. To see the nature of the problem, imagine that there are two independent antitrust authorities in two different countries. Consider a unilateral conduct by a dominant firm such as tying or rebates. Let the effects of such a conduct on national welfare be W1 and W2, in country 1 and country 2, respectively. Such a conduct will be globally efficient if W1 + W2 ≥ 0. However, such a conduct will be prohibited and subject to antitrust enforcement in country i, if Wi < 0, where i = 1, 2. Suppose that a unilateral conduct confined to an individual country is not feasible. Then, the unilateral conduct in question will be allowed only when W1≥ 0 and W2 ≥ 0, 2 which is a more stringent condition to satisfy than W1 + W2 ≥ 0, and may lead to overregulation of unilateral conducts. The shaded areas in Figure 1 represent the overregulated areas. In both areas A and B, the unilateral conduct is globally efficient. However, the antitrust authority in country 1 prohibits such conduct in area A and the antitrust authority in country 2 does the same in area B. The same logic applies to other areas of antitrust enforcement. If we consider enforcement costs, the enforcement externalities can also lead to a collective decision dilemma and the concomitant free-rider problem in antitrust enforcement. To see this, let us now assume that the welfare effects of the unilateral conduct is the same and harmful for both countries, that is, W1 = W2 =W < 0. In addition, assume that there are enforcement costs C. Then, it is optimal to enforce against this conduct in one country as long as 2W + C < 0. There can be two types of inefficiencies. If W + C > 0 and 2W + C < 0, no country is willing to enforce against this conduct unilaterally because the cost of enforcement is not justified although the enforcement is globally efficient. In this case, the only way to enforce against this conduct is to share the enforcement costs between the two countries. If W + C < 0, each country is willing to unilaterally enforce against the conduct, but each country may have incentives to free ride on the other country’s enforcement efforts unless both countries can coordinate. Independent and uncoordinated antitrust enforcement can be a considerable burden for multinational firms operating in many different countries if the antitrust rules differ and/or procedural rules of enforcement vary across countries. Merger proposals may need to satisfy the conditions of the agency with the strictest antitrust rules. The same applies to unilateral conducts. A nightmare scenario may be the case where different agencies require conflicting rules that cannot be satisfied simultaneously. Multiple jurisdictions with independent agencies can also significantly increase the complexity of defense strategies of a firm that is investigated for an alleged antitrust violation. Defense lawyers need to be extra cautious so that a position taken in one country cannot be adversely used against the alleged company in other countries with different rules and procedures. The need to adopt a cohesive defense strategy in the face of many different antitrust rules may severely limit the ability to defend the alleged firms. Language can be another issue. The in-house general counsels of firms investigated for alleged conduct need to formulate coordinated defense strategies in multiple languages without anything being “lost in translation.” There is a broad consensus that the main objective of antitrust enforcement should be the protection of consumers. However, there may be countries that pursue additional or different objectives with antitrust policies, which would certainly create inconsistencies in the policy implementation. For instance, the newly enacted Antitrust Monopoly Law (AML) in China states that one of its objectives is to “promote the socialist market economy.“ Considering the growing importance and influence of the Chinese economy, it may be a concern if the antitrust authority in China actively pursues this objective, even though it is too early to tell. Its merger review also considers among other factors the "effect on the development of the national economy and public interest." It remains to be seen how this consideration will affect actual merger decisions in China. Even in countries where the stated goal of antitrust authorities is purely the protection of consumers, we cannot rule out the possibility that antitrust authorities misuse their power for other purposes or succumb to “regulatory capture,” to which any regulatory agency is susceptible. This possibility is especially worrisome in developing countries where antitrust authorities are not completely independent and usually political appointees. First, there is a concern that antitrust decisions can be used as a disguised protectionist policy. This is especially so in antitrust cases that pit domestic firms against foreign multinational firms and domestic firms have previously been shielded from foreign competition. In such cases, antitrust policy could be enforced in a discriminatory fashion against foreign companies as an instrument of protectionist policy. Second, politically-minded and overzealous enforcement officials may also see high-profile antitrust cases (especially those against foreign multinationals) as a stepping stone that leads to promotion in their bureaucratic or political career. They can use such an opportunity to portray themselves as crusaders who bravely stand against powerful foreign multinationals to protect domestic interests. There could be a race to be the toughest in an attempt to be a relevant player, which can preclude many pro-competitive mergers and single firm conducts. Finally, the lack of uniform antitrust enforcement across jurisdictions raises the possibility of “forum shopping” in the presence of antitrust enforcement externalities. With multiple antitrust authorities in different jurisdictions, competitors of the merging parties or an allegedly dominant firm have incentives to bring the case to the antitrust authority with the most sympathetic ear, which ensures that the strictest antitrust rule is enforced in the global economy. In this section, I focus on three important classes of antitrust enforcement in which enforcement externalities become a problem due to the proliferation of antitrust agencies. If multiple antitrust jurisdictions are in place, enforcement externalities naturally arise in cases of international mergers. The increasingly global nature of business transactions has resulted in a growing number of mergers falling under multiple jurisdictions and corresponding competition authorities. This inevitably invites potential conflicts among competition authorities. For instance, the European Commission can block or force changes to company mergers and takeovers, even when they do not involve any European firms, if they are deemed to adversely affect the competitive landscape in the European market.4 The same applies to US antitrust authorities such as the Department of Justice and the Federal Trade Commission. They routinely take actions against foreign firms if the firms’ actions harm competition and adversely affect consumers in the US market.5 The current situation naturally raises concerns about the potential for intergovernmental disagreements about the effects of antitrust actions. This type of potential conflict is best illustrated by the proposed merger between General Electric (GE) and Honeywell, which was approved in the U.S., but blocked by the European Commission.6 With the proliferation of antitrust authorities that enforce merger regulations, this type of conflict can only be magnified. As of 2001, the American Bar Association identified 46 international merger notification requirements.7 China is now an active player in this area. For instance, the Anti-Monopoly Bureau of the Ministry of Commerce (“MOFCOM”) reviews the filing of “concentration of operators” under the AML and recently denied the acquisition of Huiyuan by Coca-Cola by claiming that Coca-Cola would have the ability to transmit its dominant position in the soda soft beverage market into the juice beverage market. 8 The proliferation of decentralized antitrust enforcement agencies implies that any merger between large multinational firms that have a presence in any of these countries needs to notify and receive approvals without any single exception; any veto from any of these countries can torpedo the proposed merger. The problem with the current regime without any harmonization of policies is that any international merger will essentially be determined by the least permissive agency without any considerations of its effect on consumers in other jurisdictions. This decision mechanism is likely to be inefficient, and the degree of inefficiency will be exacerbated as more agencies are involved, since the view reflected in the decision would be the one most extreme. This is true even if all antitrust agencies pursue the same economic goal (either social or consumer welfare maximization) without any political considerations and the effects of mergers are uniform across jurisdictions. If we consider the outcome of each investigation as an independent estimate of the effects of the proposed merger, the best estimate in the statistical sense would be the average view unless there is any systematic bias in the evaluation process. With the current system, however, the merger enforcement would be driven by the first order statistic, i.e., by the competition authority with the most pessimistic view about the proposed merger. Even if there is no uncertainty in the evaluation of the effects of mergers, there could be conflicts if the effects of mergers are not uniform across jurisdictions. Suppose that there is a proposed merger that affects two countries, 1 and 2. The welfare impacts of the merger on each country are given by W1 and W2. As discussed above, the merger is globally efficient if and only if W1 + W2 ≥ 0. However, the merger will be approved if and only if W1≥ 0 and W2 ≥ 0 under the current system. The latter condition is more stringent than the former condition, which implies that efficient mergers can be blocked since each agent ignores external effects. Once again, the scope of this type of inefficiency certainly increases as more agencies are involved. The issue of externalities also arises in the context of single firm conduct. As in the merger cases, the decision of one agency may have positive or negative impacts on consumers in other jurisdictions. If a country has no antitrust enforcement, other countries’ enforcement against unilateral conduct can have positive effects on the country’s welfare. However, if the country also has an active enforcement agency and deeds a firm’s unilateral conduct efficient and welfare-enhancing, other countries’ enforcements against the same conduct can eliminate efficiency-enhancing business practice by the firm, leading to overregulation. Recent examples in which the U.S. antitrust agencies and the EC made divergent decisions include the British Airways conditional rebate case. In the US, the rebate scheme used by British Airways was deemed to be permissible but the same conduct was condemned to be anticompetitive by the EC.9 Intel was another case in which the conduct was deemed lawful in the US, but condemned to be anticompetitive in Europe and Korea. The Microsoft case is another example in which the company was subject to allegations of antitrust violations in multiple jurisdictions and faced different remedies that are not necessarily consistent. In antitrust cases that involve intellectual property rights [IPRs], additional issues may arise. As an example, consider the case of compulsory licensing as an antitrust remedy to solve an interoperability problem.10 When an “essential facility” is a physical property, the access can be limited to a particular geographic area. Thus, the issue of different antitrust approaches can be confined to the areas of dissonance without affecting others. In contrast, if the essential facility is intellectual property, limiting the use of the property in other areas or related fields may be difficult. To use the example of the Microsoft case in Europe, it would be impractical to enforce that the interoperability information shared with third party vendors of Windows server software be limited to the products sold only in Europe. Thus, compulsory licensing enforced in Europe can affect competitive conditions in other areas as well. This also raises the possibility of “forum shopping,” as explained above. With multiple antitrust authorities in different jurisdictions, competitors of the essential facility owner have incentives to bring the case to the antitrust authority with the most sympathetic ear for the competitors. This possibility highlights the need to harmonize competition policies across jurisdictions. There is a near consensus that the first priority of antitrust enforcement should be to combat price fixing, and the economic harms caused by hard core cartels are universally recognized. Thus, there is less conflict in this area among antitrust agencies. In addition, the enforcement in this area usually confers positive benefits on other countries. The main issue in this area is underenforcement rather than over-enforcement. When multinational firms operate in several jurisdictions in the presence of arbitrage opportunities across markets, the sustainability of collusion in one local market can be affected by the existence of collusion in other markets. Consider, for example, the vitamin cartel case of Empagran S.A. v. F. Hoffman-LaRoche. Empagran S.A. of Ecuador and other foreign companies (that purchase and resell vitamins) filed a suit against F. Hoffman-LaRoche of Switzerland and numerous other foreign companies for an alleged international price-fixing conspiracy.11 The case concerned a price-fixing conspiracy that allegedly took place overseas even though the case itself was filed in a US federal district court. The foreign plaintiffs, suing under the U.S. Foreign Trade Antitrust Improvement Act (FTAIA), claimed that "the cartel raised prices around the world in order to keep prices in equilibrium with United States prices in order to avoid a system of arbitrage" and therefore that "the foreign plaintiffs were injured as a direct result of the increases in United States prices even though they bought vitamins abroad." The interdependence of cartel stability across markets leads to potential externalities in antitrust enforcement across jurisdictions with independent antitrust authorities. For instance, cartel detection and desistance in one market can lead to cartel breakdown in other markets, conferring positive externalities. The domino effect may induce each antitrust agency to free ride on other agencies’ enforcement efforts. This calls for cooperation and coordination among antitrust agencies to eliminate a collective decision problem. To understand the nature of the free-rider problem when there are enforcement costs, consider the following simple cartel enforcement game. There are two antitrust agencies that must decide whether or not to spend resources on cartel detection and prosecution. For simplicity, let me assume that the welfare effect of a hardcore cartel on consumers is the same across jurisdictions. Let us denote the welfare loss due to the cartel in each country by L. The cartel should desist, but the agency’s enforcement cost is C. The game can be described by the following matrix (Table 1). Each enforcement agency independently decides whether or not to enforce. We assume that the cartel in both countries can be broken up by enforcement in any one of the two countries due to the domino effect. We further assume that L > C >0, which implies that the cartel enforcement is beneficial in each country if there is no other enforcement agency. There are multiple equilibria in this game, with two asymmetric pure strategy equilibria and one symmetric mixed strategy equilibrium. In the two asymmetric pure strategy equilibria, one agency enforces while the other chooses not to, and the resulting equilibrium is efficient. However, the most natural equilibrium may be the symmetric mixed strategy equilibrium since both agencies are symmetric in this game. Without any coordination and information sharing, the unique, symmetric equilibrium is that each agency enforces with probability p = L C L − . With the symmetric mixed strategy equilibrium, however, we have a coordination failure and the price fixing will continue with probability (1-p)2 . Another source of inefficiency with independent investigations is the possibility of duplicative efforts in the event that both agencies decide to enforce, which occurs with probability p 2 . In this stylized situation, it would be beneficial for both parties to consider the designation of a “lead agency” to eliminate duplication and streamline the process. All the reasons listed above support a more integrated approach in the enforcement of international mergers. In addition, information sharing among antitrust authorities would be a very important tool in the fight against hardcore cartels. Information sharing arrangements would allow antitrust agencies to coordinate their investigative strategies and provide them with access to subjects, evidence, and witnesses that are located outside each country’s borders.12 In previous sections, we pointed out potential perils from the proliferation of antitrust agencies and emphasized the need for policy harmonization and coordination across jurisdictions. It is important not to impose any additional burden on businesses with unnecessary regulatory uncertainty. Different substantive and procedural regimes make conducting businesses with an international locus of effects complex, time consuming, and expensive. Clear and consistent standards across jurisdictions will facilitate global businesses and eliminate any bureaucratic burdens associated with uncertainty. Given this broad consensus on the high desirability of a uniform substantive and procedural antitrust regime, the difficult question is a more practical one of how we can achieve the needed policy harmonization among countries with sovereign rights.

#### Concessions on IP licensing restores WTO credibility – key to pandemic recovery and ensures developing country transition to green tech

Okonjo-Iweala 21 (Ngozi Okonjo-Iweala, director-general of the World Trade Organization, 3-2-2021, Ngozi Okonjo-Iweala: WTO members must intensify co-operation, Financial Times, <https://www.ft.com/content/0654600f-92cc-47ad-bfe6-561db88f7019>, MAM)

On Monday I became the first woman and the first African to lead the World Trade Organization. Now we must roll up our sleeves and get to work. The WTO already faced acute challenges, and they have been **amplified by Covid-19.** The pandemic has wreaked havoc on the global economy, affecting supply chains and disrupting transport and travel. The crisis has upended trade and economic activities, leading to job losses and reduced incomes around the world. It has erased years of economic gains made by developing countries and even decades of growth in some low income and least-developed countries. There is hope on the horizon. The WTO expects world merchandise trade to rebound strongly this year. The IMF forecasts an 8 per cent growth in global trade volumes in 2021 and a 6 per cent growth in 2022. It estimates global gross domestic product to rebound from falling 4.4 per cent in 2020 to growing 5.5 per cent in 2021. However, for the global economy to return to sustained growth, we must intensify co-operation to ensure equitable and affordable access to vaccines, therapeutics and diagnostics. The WTO can and must play a more forceful role in encouraging members to minimise or remove export restrictions and prohibitions that hinder supply chains for medical goods and equipment. WTO members have a further responsibility to reject vaccine nationalism and protectionism while co-operating on promising new treatments and vaccines. We must find a “third way” on intellectual property that preserves the multilateral rules **that encourage research and innovation while promoting licensing agreements** to help scale-up manufacturing of medical products. Some pharmaceutical companies such as AstraZeneca, Johnson & Johnson and the Serum Institute of India are already doing this. More broadly, WTO members agree that the organisation needs reforms. But a lack of trust means they do not agree on what changes are needed or their sequencing. If we are to restore the WTO's credibility, we must set aside our differences and agree on reforms when trade ministers meet later this year. We must contribute to ocean sustainability by agreeing to eliminate harmful fisheries subsidies which lead to too many vessels chasing too few fish. A robust deal will signal that **the WTO is back** and that it can conclude a multilateral agreement vital for future generations. The WTO cannot afford to stumble over this; the negotiations have been going on for 20 years. This is far too long. Absent an agreement, there will be no fish left over which to argue. The dispute settlement system has been central to the security and predictability of multilateral trade. But it needs reform and ministers need to agree this year on the nature of these reforms and how to make them. The WTO rule book must be updated to take account of 21st-century realities such as the digital economy. The pandemic has accelerated the use of ecommerce, enabling women and small and medium-sized enterprises to participate in international trade. But we must bridge the digital divide that makes some developing countries reluctant to join the ecommerce negotiations. Negotiations among some WTO members on facilitating investment and removing regulatory red tape in services trade have continued fairly intensively despite the pandemic. Participants need to broaden the support for these initiatives and attract interest from developing countries with the aim of concluding talks by the end of the year. More can be done to ensure the WTO addresses the nexus between **trade and climate change**. Members should reactivate and broaden **the negotiations** on environmental goods and services. But climate-related restrictions cannot become disguised restrictions on trade, and we must assist developing countries as they transition to the use of more environmentally friendly technologies. The WTO’s work in new or innovative areas does not mean that we have forgotten traditional topics such as agriculture. Improving market access for export products and dealing with trade-distorting farm subsidies remain of paramount importance to developing and least-developed countries. One area ripe for early agreement involves the removal of export restrictions on farm products purchased for humanitarian purposes by the World Food Programme. Ensuring that government support for state-owned industrial enterprises does not distort competition is also a top priority for many WTO members. The WTO faces numerous tricky challenges, but **they are not insurmountable**. There is hope if we work together in a manner that builds trust and builds bridges.

### Climate

#### Plan key to solve climate change – ‘refusal to license’ is the roadblock to all solutions

Cayton 20 [Samuel, Adjunct Prof at Seattle Univ School of Law, legal intern at the Media Law Group, “The ‘Green Patent Paradox’ and Fair Use: The Intellectual Property Solution to Fight Climate Change,” *Seattle Journal of Technology, Environmental & Innovation Law* 11.1, p.218-22, JCR]

The justification for a patent holder’s right to exclude rests on the principle that it promotes innovation by giving the inventor an incentive to use their invention and benefit the public.30 However, while patent law assumes patent holders will efficiently license their technologies to make the best use of its potential, this notion is not always true.31 Even with the U.S. antitrust system geared toward preventing an entity’s full market control over products, patent grants give the rightsholder the power to exclude others from unauthorized secondary use of that technology.32 Furthermore, the refusal to license is not a defense against patent infringement in a lawsuit.33 If this principle is carried out to its fullest extent, there could be a prohibitive effect on initiatives to combat climate change. Globally, companies have filed numerous green patents at varying rates among specific subsectors.34 While trends show that green patent applications are declining in part because of delays in research and development (R&D) and investment,35 certain technologies such as renewable energy are becoming “more profitable” and “less reliant on government subsidies.”36 Moreover, although the U.S. remains dependent on oil and thus resistant to transforming its energy system,37 these statistics demonstrate significant innovation within green technology. Although the U.S. is now very likely to rejoin the global efforts to combat climate change, the consensus remains that private sector innovation is needed to effectuate the challenges ahead.38 This tension between the rights of the patent holder and the need to use their green technology can be described as the Green Patent Paradox, whereby patented technologies geared toward mitigating the effects of climate change or substituting environmentally hazardous industries may not reach their full potential in part because patentees refrain from licensing their products. Whether a major crisis within the patent regime concerning green technology exists is still too early to determine.39 However, recent suits in federal court foreshadow the prospect of this issue developing in the years to come. With regard to patent reform specifically, progress has been made around the world to actively combat the effects of climate change.40 At the same time, many lawsuits have been filed and argued in federal court concerning secondary and more expansive uses of patented green technology. A patent holder is entitled to relief when a secondary user “makes, uses, offers to sell, or sells” the patented invention regardless of whether the secondary user possesses41 However, the degree to which patentees can gain relief was limited by the Supreme Court in eBay v. MercExchange whereby permanent injunctive relief in patent infringement suits must meet four basic requirements for an injunction.42 A heightened standard for plaintiffs means that secondary uses of patented technologies have a better chance of surviving infringement suits. For commentators as well as secondary users, this decision is seen as a partial victory because the patent infringement gravitated from the old standard which automatically gave injunctive relief to the plaintiff.43 Since eBay, many subsequent green patent infringement cases have come before federal courts, providing mixed signals for future developments of green technology.44 In 1992, Paice LLC, a startup company in the business of hybrid gas-electric vehicles, filed a patent for its developed hybrid technology.45 Paice’s patent application covered the utilization of an electric motor in conjunction with the standard internal combustion engine (ICE) that supplies additional power and transfers torque to the drive wheels of conventional automobiles.46 In 1994, the USPTO granted Patent No. 5,343,970 (“the ‘970 patent”) to Paice.47 One year later, Toyota started developing hybrid gas-electric vehicles in Japan and later launched the Prius in 1997, which was subsequently released to the U.S. in 2000.48 Paice founder, Dr. Alex Severinsky, met with representatives of Toyota USA to demonstrate Paice’s hybrid technology and offer a license agreement; however, Toyota refused because it had “no intention of developing [Paice’s] technology.”49 At subsequent meetings between the parties, Toyota acknowledging Paice’s strong contributions but still refusing its offer to license the patent.50 Thereafter, Paice filed suit against Toyota in the Eastern District of Texas for infringement of the ‘970 patent.51 Pursuant to eBay, the District Court denied permanent injunctive relief for Paice; however, the Court went on to hold that Toyota infringed on the patent rights of Paice and awarded ongoing royalties of $25 per infringing hybrid Toyota vehicle to Paice.52 On appeal, the Federal Circuit Court affirmed the denial of the injunction but remanded on the issue of royalties, holding that the District Court could not allow further use by Toyota without clarifying how to calculate the ongoing royalty.53 On remand, after providing the parties an opportunity to settle on a rate themselves, the District Court raised the ongoing royalties to $98 per hybrid vehicle.54 Paice demonstrates the sheer benefit that eBay has toward resolving the Green Patent Paradox. If Dr. Severinsky had his way, Toyota would not have been able to sell the Prius, Highlander, Lexus RH400h, or other hybrid models in the U.S.55 Given Toyota’s success and leadership in the fuel efficiency market, such a result could have imposed a severe impact on the climate.56 However, given Dr. Severinsky’s zealousness to hold dominion over the hybrid motor, this case also reveals the potential threat of a patent holder not fully utilizing their rights on the rights of valuable green patents. Infringement suits on green patents have also covered alternative energy. In 2002, General Electric (GE) obtained U.S. Patent No. 5,083,039 (the ‘039 patent),57 which covered a “wind turbine mechanism operating at variable speed under different wind condition[s].”58 This advancement was beneficial because U.S. electric companies previously had to adjust wind turbines based on “a standard fixed frequency [of 60Hz].”59 A few years later, GE and Mitsubishi, a Japanese wind turbine manufacturer, engaged in a patent dispute over the ‘039 patent. GE brought an infringement action against Mitsubishi.60 Mitsubishi countered by filing61 a complaint in the Western District of Arkansas, accusing GE of violating antitrust law by dominating the market of variable speed wind turbines.62 These suits illustrate what is considered “the beginning of an arms race for IP in the clean energy industry.”63 While these companies are advocating for what they believe are their rights to use this technology, the need to expand this technology in the pursuit of mitigating the effects of climate change is sidelined. The ‘039 patent is a quality patent that effectively blocked use by other companies wishing to achieve an energy quality standard without proper licensing.64 If a patent of this nature gets into the hands of an entity that sits on their intellectual property rights,65 then the benefits of the green technologies covered will not be imputed on society. While Paice and GE are two major lawsuits in the area of green technology, other forms of patent infringement actions have reached federal court involving a wide variety of green patents.66 For example, one technology that has gained success in the realm of alternative energy is energy-efficient lighting such as light-emitting diodes (LEDs). LEDs are an effective substitute for standard incandescent lightbulbs and are more environmentally friendly; producing more light per watt, emitting particular colors of light without utilizing other color filters, and radiating very little heat.67 Additionally, LEDs are eco-friendly substitutes for technologies such as traffic lights and cell phones.68 Given the potential widespread use of LEDs, patent infringement disputes are inevitable. In 2019 alone, Technical LED Intellectual Property and Lighting Science Group collectively filed nineteen patent infringement lawsuits against other companies, alleging that certain products infringe on their LED patents.69 Additionally, numerous infringement lawsuits have arisen in other green technology sectors such as solar power, batteries, and even eco-friendly pet products.70

#### IPR key to solve climate change – meets stakeholder interests and is necessary to disperse climate tech.

Rosencranz et al 18 [Armin, founder of Jindal Global School of Environment and Sustainability at OP Jindal Global University, Sangram Parab, P. Modi, A. Vora; OP Jindal Global University, January 2018, “Climate Change and the Patent Regime: Are Patents the Answer?” *Journal of Intellectual Property Rights* 23, MAM]

It is almost certain that developing countries desperately need greenhouse gas abatement technology. How will that happen? Clean energy is the answer. To get the technology, they'll need to create it themselves or buy it from the patent-holder. The avenues discussed above aim to enable developing countries to shift to clean energy, and thereby to make our planet a greener and safer place to live in. The advent of clean energy technologies is **inevitable.** The only question that needs to be addressed is **how the government will regulate this transition**. The faster that developing countries implement the transition, the better for everyone involved. How will that happen? Intellectual property laws are the answer. In this article, by comparing the success of IPR in the pharma and technology sectors, it is shown that IPR is the way forward in the energy sector as well. The trinity of patent pools, patent databases and compulsory licensing will ensure that the interests of all stakeholders are met and that clean energy is pushed forward. At the same time, the importance and benefits of providing a legal framework for transactions in this nascent sector; and that maintaining a level of regulation **is essential** to meet the aim of providing clean and environmentally-friendly technology are also highlighted. It may lead to a hope to start a conversation with this article and invite people to explore various strategies and policies to mitigate the effects of climate change. Time is of the essence — polar bears are in the path toward extinction in the North Pole as we speak — and any step taken away from fossil fuels, however small, is the way forward.

#### Aggressive action from the U.S. and China is necessary – patent access fast-tracks the process and gears competition towards solving climate change.

Ladislaw 21 (Sarah Ladislaw is senior vice president and director of the Energy Security and Climate Change Program at the Center for Strategic and International Studies, 1-21-2021, Productive Competition: A Framework for U.S.-China Engagement on Climate Change, CSIS, <https://www.csis.org/analysis/productive-competition-framework-us-china-engagement-climate-change>, MAM)

The United States and China remain two of the most important countries for addressing climate change. They are the largest greenhouse gas emitters globally, though China far surpasses the United States on a national basis, and the United States surpasses China on a per capita basis. They are both significant contributors to the creation of low-carbon energy technology. Here, too, China has surpassed the United States as both a market for clean energy technology and as a manufacturer of those technologies. From a scientific perspective, it is impossible to address climate change and the goal of keeping global temperature rise to less than 2 degrees Celsius above pre-industrial levels without **both China and the U**nited **S**tates taking aggressive action to reduce emissions within the next decade. There is precedent for cooperation between the United States and China on climate change: the partnership between the two during the Obama administration created the global political dynamic that enabled the Paris Agreement. Given the urgency of the task at hand and the diplomatic muscle memory of the Biden administration, it is tempting to once again seek bilateral cooperation between the United States and China as the anchor in a new model of global climate leadership. But times have changed. First, and most importantly, the relationship between China and the United States has grown much more contentious since the end of the Obama administration. Beijing’s economic, technological, and military power has grown along with its ability to assert its distinct agenda on the global stage. It is unclear which issues will take top priority for the Biden administration regarding U.S.-China relations, but there will be many areas where U.S. and Chinese interests will conflict, and even more where the two will regard each other as competitors. Still, some degree of compartmentalization will likely be necessary to manage a contentious but essential relationship. Worsening U.S.-China relations under the new administration will likely have significant repercussions for the climate agenda. Trade disputes, concerns over human rights, and national security concerns could all disrupt clean energy supply chains between the United States and China, not to mention other countries. National security and competitiveness pressure could lead to less collaboration between the U.S. and Chinese scientists and institutions. Second, how we think about the climate challenge is different too. The main goal is no longer to negotiate a global agreement but to deliver on the actions pledged in those agreements. The United States' reentry to the Paris Agreement is a positive first step, and it needs to submit a new pledge of climate action (National Determined Contribution) to the UN Framework Convention on Climate Change. Still, beyond that, the high-stakes items are not about negotiations and agreements. The economic and political atmosphere in which climate change exists is different too. Countries are still reeling from the Covid-19 pandemic. Even before the pandemic, countries were pulling back from one another due to a crisis of confidence in globalization and free trade sparked by inequality-fueled domestic populism. Add to this an unprecedented growth in climate activism in civil society, climate risk awareness in global financial institutions, and pledges to be carbon neutral by countries and significant corporations alike. The result is enormous pressure for actions that deliver economic and climate benefits to domestic constituencies. Europe, China, India, Japan, and the United States, among others, are adopting more industrial strategy-oriented models of climate action that seek to create clean energy economic opportunity as they do emissions reduction. At one point, the vision for reducing greenhouse gas emissions was through a system of globally linked carbon markets and integrated supply chains that would drop the cost of technology. Now countries exist in an uneven playing field consisting of varying approaches to dealing with climate change and rising incentives to compete to extract maximum domestic economic value from their climate investment and policies. This environment might foster less of a tendency toward bilateral cooperation, and instead toward competition. The goal should be to make it a productive competition where players compete to achieve good rather than destructive outcomes. In this case, the United States could challenge China to be the first country to reach net-zero greenhouse gas emissions and to be the top provider of clean energy technology solutions to the world. Others will compete too, of course—formidable challengers like Europe, India, South Korea, and Japan. This productive competition dynamic will still require some elements of cooperation as well as efforts to co-opt China. For example, the United States, China, and other countries should continue to facilitate cross-border collaboration on energy research and development. Here, cooperation among scientists, industries, and sectors is critical. When it comes to research-led innovation, there are no benefits to breaking down scientists and innovators' network, which will deliver the essential breakthroughs we need. The United States and China might also need to agree on some things, like new rules to ensure the multilateral financial, development, and trade systems encourage climate change measures. While concerns over China’s unfair trade practices are indeed valid, the United States should find ways to protect the climate agenda from these ongoing economic tensions. A strategy of working with like-minded countries to pressure China to come on board may be necessary. In the current trade environment, it is quite likely policies to manufacture and deploy clean energy technologies will run into trade barriers (as they have in the past) due to China's massive use of state subsidies to develop technologies and protect domestic industries. One way to avoid this is to **agree to a climate waiver** **under the** World Trade Organization (**WTO**), which would allow countries to subsidize and protect clean energy industries and technologies that help them to meet their climate commitments. Thus far, the European Union, Japan, and the United States have been leading the charge to reign in the Chinese overall state-led economic model using pressure in the WTO. Working within this group to propose a climate waiver to China would allow these countries to remain united on other aspects of their agenda while compelling China to address climate change. The United States might also want to find other ways to co-opt China into doing more positive things for the climate. For example, in the context of Covid-19 debt relief, the United States and other countries could pressure China to restructure existing debt holdings from developing countries into climate-beneficial projects. These so-called debt-for-climate swaps could be similar in format to the debt-for-nature swaps that became popular following the sovereign debt crisis of the 1980s. There may be other ways to co-opt Chinese investment in global infrastructure projects to be greener by granting them recognition for their green performance as part of a multilateral initiative. The first and most important part of this strategy is for the United States to get serious about its clean energy and climate policy and commit to being more competitive. The Biden administration has already pledged to do this as part of its Build Back Better plan, but there is reason to believe both parties in Congress could support some of this agenda. As I wrote in an earlier commentary on the topic, the last remaining bipartisan area of agreement in Washington concerns U.S. competitiveness relative to other countries, particularly China. As the American Council on Competitiveness notes, no matter the measure or sector of the economy, the United States is either newly lagging or weakening its leadership across the board. Before the end of 2020, Congress passed a clean energy innovation package that makes a substantial down payment toward a more competitive U.S. clean energy sector. But more must be done. The final thing to note is that there will likely still be areas where the United States and China simply cannot and will not trust each other. These could be concrete issues like the inclusion of Chinese-made equipment in our critical infrastructure, including the electric power grid. Or significant, principle-related matters like human rights violations in the clean energy supply chain for solar panels. There may be excellent reasons for the United States to confront China on a range of trade or security issues, but **getting tough on China is no substitute for launching a viable U.S. strategy to compete in** the field of **clean energy** technologies. A productive competition strategy means leaning into our instincts to compete with China but in a way that advances shared global interests.

#### Climate change causes widespread violence – feedback loops make adaptation impossible.

Beard et al. 21 (S.J. Beard; Senior Research Associate and Academic Programme Manager at the Centre for the Study of Existential Risk, S.J. Beard, Lauren Holt, Asaf Tzachor, Luke Kemp, Shahar Avin, Haydn Belfield; Centre for the Study of Existential Risk research associates, Phil Torres of Torres 16; visiting scholar at the Centre for the Study of Existential Risk at Leibniz Universität Hannover, Assessing climate change’s contribution to global catastrophic risk, Futures Volume 127, March 2021, 102673, [https://www.sciencedirect.com/science/article/pii/S0016328720301646#](https://www.sciencedirect.com/science/article/pii/S0016328720301646)!, MAM)

While most of the impacts of climate change so far have fallen within the range of what was experienced during the Holocene, the rate of change is **faster than** in **the Holocene** and we are now beginning to see climate change push **beyond these boundaries**. In the latest edition of the planetary boundaries’ framework, climate change is placed in the zone of increasing risk, implying that while this boundary has been breached, there remains some **potential** for normal functioning and recovery (Steffen et al., 2015). It thus lies between what the authors identify as the ‘safe zone’ and other ‘high risk’ transgressions, such as disruption to the biochemical flows of nitrogen and phosphorus and loss of biosphere integrity. As part of their discussion of BRIHN Baum and Handoh (2014) note that climate change is the planetary boundary for which the risk to humanity has received most meaningful consideration and they suggest that this attention is deserved. Yet little research attention has been paid to climate change’s extreme or catastrophic effects. Kareiva and Carranza (2018) argue that, despite currently falling outside of the area of high risk, climate change has the clear potential to push humanity across a threshold of irreversible loss by “changing major ocean circulation patterns, causing massive sea-level rise, and increasing the frequency and severity of extreme events… that displace people, and ruin economies.” Even if humanity was resilient to each of these individual impacts, a global catastrophe could occur if these impacts were to occur **rapidly and simultaneously**. One scenario that has received comparatively more attention is that of the global climate crossing a tipping point that would trigger environmental feedback loops (such as declining albedo from melting ice or the release of methane from clathrates) and cascading effects (such as shifting rainfall patterns that trigger desertification and soil erosion). After this point, anthropogenic activity may cease to be the main driver of climate change, making it accelerate and become harder to stop (King et al., 2015). Other scenarios can be discerned from the numerous historical cases in which the modest, usually regional, climatic changes experienced during the Holocene have been implicated in the collapse of previous societies, including the Anasazi, the Tiwanaku, the Akkadians, the Western Roman Empire, the lowland Maya, and dozens of others (Diamond, 2005, Fagan, 2008). These provide a precedent for how a changing climate can trigger or contribute to societal breakdown. At present, our understanding of this phenomena is limited, and the IPCC has labelled its findings as “low confidence” due to a lack of understanding of cause and effect and restrictions in historical data (Klein et al., 2014). Further study and cooperation between archaeologists, historians, climate scientists and global catastrophic risk scholars could overcome some of these limitations by identifying how the impacts of climate change translate into social transformation and collapse, and hence what the impacts of more rapid and extreme climatic changes might be. There is also the potential for larger studies into how global climate variations have coincided with collapse and violence at the regional level (Zhang, Chiyung, Chusheng, Yuanqing, & Fung, 2005; Zhang et al., 2006). However, these need to be interpreted and generalized with care given the differences between pre-industrial and modern societies. Societies also have a long history of adapting to, and recovering from, climate change induced collapses (McAnany and Yoffee, 2009). However, there are two reasons to be sceptical that such resilience can be easily extrapolated into the future. First, the relatively stable context of the Holocene, with well-functioning, resilient ecosystems, has greatly assisted recovery, while **anthropogenic climate change** is more rapid, pervasive, global, and severe. Large-scale states did not emerge until the onset of the Holocene (Richerson, Boyd, & Bettinger, 2001), and societies have since remained in a surprisingly narrow climatic niche of roughly 15 mean annual average temperature (Xu, Kohler, Lenton, Svenning, & Scheffer, 2020). A return to agrarian or hunter-gatherer lifestyles could thus have more devastating and long-lasting effects in a world of rapid climate change and ecological disruption (Gowdy, 2020).7 Second, modern human societies may have developed **hidden fragilities that amplify the shocks** posed by climate change (Mannheim 2020) and the complex, tightly-coupled and interdependent nature of our socio-economic systems makes it more likely that the failure of a few key states or industries due to climate change could cascade into a global collapse (Kemp, 2019). A third set of plausible scenarios stem from climate change’s broader environmental impacts. Apart from being a planetary boundary of its own, Steffen et al. (2015) point out that climate change is intimately connected with other planetary boundaries (see Table 1). Climate change is thus identified by the authors as one of two ‘core’ boundaries with the potential “to drive the Earth system into a new state should they be substantially and persistently transgressed.” This transformative potential was elaborated on in subsequent work exploring how the world could be pushed towards a ‘Hothouse Earth’ state, even with anthropogenic temperature rises as low as 2 ◦C (Steffen et al., 2018). The connection between climate change and biosphere integrity (the survival of complex adaptive ecosystems supporting diverse forms of life) is particularly strong. The IPCC is highly confident that climate change is adversely impacting terrestrial ecosystems, contributing to desertification and land degradation in many areas and changing the range, abundance and seasonality of many plant and animal species (Arneth et al., 2019). Similarly, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has reported that climate change is restricting the range of nearly half the world’s threatened mammal species and a quarter of threatened birds, with marine, coastal, and arctic ecosystems worst affected (Diaz et al., 2019). According to one estimate, climate change could cause 15–37 % of all species to become ‘**committed to extinction’** by mid-century (Thomas et al., 2004). Disruption to biosphere integrity can have profound economic and social repercussions, ranging from **loss of ecosystem services and natural resources** to the **destruction of traditional knowledge and livelihoods.** For instance, desertification, which threatens a quarter of Earth’s land area and a fifth of the population, is already estimated to cost developing nations 4–8 % of their GDP (United Nations, 2011). Many other rapid regime shifts involving loss of biosphere integrity have been observed, including shifts in arid vegetation, freshwater eutrophication, and the collapse of fish populations (Amano et al. 2020). There is a theoretical possibility of still more profound regime shifts at the global level (Rocha, Peterson, Bodin, & Levin, 2018). However, the contribution of loss of biosphere integrity to GCR is yet to be assessed. Kareiva and Carranza (2018) argue that it is unlikely to threaten human civilization, due both to a lack of plausible mechanisms for this threat and the fact that “local and regional biodiversity is often staying the same because species from elsewhere replace local losses.” However, in their classification of GCRs, Avin et al. (2018) suggest the potential for ecological collapse to threaten the safety boundaries of multiple critical systems with diverse spread mechanisms at a range of scales, from the biogeochemical and anatomical to the ecological and sociotechnological. Note that both these studies were conducted for largely conceptual purposes and should not be taken as rigorous analyses of this risk, this topic warrants further investigation.

#### Each tenth of a degree matters and saves millions of lives

Aronoff & Denvir 21 [Kate, staff writer at the New Republic, writing fellow at In These Times, Daniel, visiting fellow in International and Public Affairs at Brown Univ, “Capitalism Can’t Fix the Climate Crisis,” *Jacobin*, 08/25/21, <https://jacobinmag.com/2021/08/capitalism-climate-crisis-global-green-new-deal-clean-energy-fossil-fuel-industry>, accessed 08/26/21, JCR]

The text of the Paris Agreement says that warming should be constrained to well below two degrees Celsius. 1.5 degrees is an aspiration. It’s good to understand where that demand comes from; it has been a standing call from the folks in climate-vulnerable countries in the Global South, for whom the difference between 1.5 and 2 degrees is huge. The folks talking about 1.5 degrees have been marching through the halls of UN climate talks, chanting “1.5 to survive,” because for low-lying island states, warming of 1.5 degrees represents an existential threat. Currently we are on track for about 1.1 degrees Celsius of warming. That gives us a punishingly short window in which to meet even two degrees, which is a bit of a fabrication; there’s some debate about where the two-degree target came from. Some people credit that to the economist William Nordhaus, who is not the most reliable source on a lot of these things. But there’s something comforting about a target. There’s something comforting about saying that this thing that is happening is far-off, and that we can potentially avoid it. We have a bit of time, and two degrees gives us more time than 1.5 degrees. Reaching targets has been the popular goal. That’s what you see in the fossil fuel industry assessments. But the conversation about targets can sometimes obscure what’s actually happening. It’s not as if somebody who is living through a hurricane or a natural disaster will say, “Oh no, we’ve hit two degrees Celsius.” The climate crisis is playing out all around us. There’s not a point at which we cross the boundary toward a disastrous future. Every tenth of a degree of warming that we avoid makes an enormous amount of difference, saving on the order of tens of thousands of lives. If we cross 1.5 or even two degrees of warming, it’s not that we should all pack up, go home, and wait to die. There are still millions of lives that can be saved by preventing each additional tenth of a degree of warming.

#### The impacts of warming cascade and are felt the hardest by developing countries – industrialized countries do not have stringent enough climate standards.

Friedman et al. 8/9 (Lisa Friedman, Hiroko Tabuchi – climate reporters for the New York Times, and Winston Choi-Schagrin, NYT reporting fellow covering climate, 8-9-2021, Climate Change Is a ‘Hammer Hitting Us on the Head,’ Developing Nations Say, New York Times, https://www.nytimes.com/2021/08/09/climate/climate-change-UN-report.html)

At this point, every fraction of a degree of warming would bring ever more destructive floods, deadlier heat waves and worsening droughts as well as accelerating sea-level rise that could **threaten the existence of some island nations**, the report said.

The United States, which historically has pumped more carbon dioxide into the atmosphere than any other country, in April pledged to roughly halve its greenhouse gas emissions by 2030. While that is an ambitious goal, it is slightly below the target enshrined in law by the European Union and significantly below that of Britain.

John Kerry, President Biden’s climate envoy, said the U.N. report showed that “we need all countries to take the bold steps required” to limit global warming to relatively safe levels. Unmentioned was the fact that current United States laws and regulations are **insufficient to meet its own climate goals.**

China, the world’s biggest current producer of greenhouse gases, is still increasing its emissions from power plants, transportation and industry. It plans to hit peak emissions by 2030 before starting to cut back until it no longer produces a net increase of carbon dioxide by 2060.

The Chinese government **didn’t respond to the U.N. findings**. But in a recent talk, the country’s top climate negotiator, Xie Zhenhua, objected to proposals to set new goals to cut global emissions beyond the level agreed upon by nations in 2015 as part of the Paris climate accord.

“As we’ve already achieved this consensus, there’s no need to ignite fresh controversy now over this goal,” Mr. Xie told an event organized by a Hong Kong foundation, adding, “Our issue now is taking action and stepping up.”

And in India, where emissions per capita are a fraction of those of wealthy nations yet growing at a rapid pace, the government said the U.N. findings point to the need for industrialized nations to do more. India also has been resistant to new language demanding all nations take stronger action to hold global temperatures to a 1.5 degree Celsius increase, arguing wealthy countries have not yet made good on their own targets.

“Developed countries have usurped far **more than their fair share** of the global carbon budget,” Bhupender Yadav, India’s environment minister said in a statement. The report “vindicates India’s position that historical cumulative emissions are the source of the climate crisis that the world faces today,” he said.

Referring to the report as **“a code red for humanity**,” the United Nations Secretary General Antonio Guterres renewed his call for an end to the construction of new coal-burning plants as well as an end to fossil fuel subsidies by governments. “This report must sound a death knell for coal and fossil fuels, before they destroy our planet,” he said in a statement.

#### Expanding application of compulsory licensing would ensure needed access to environmental tech

Gunderson 14 [Adam, practicing attorney at the Gunderson Law Group, “Protecting the Environment by Addressing Market Failure in Intellectual Property Law: Why Compulsory Licensing of Green Technologies Might Make Sense in the United States: A Balancing Approach,” *BYU Law Review* 2014.3, p.683-4, JCR]

Broadening the application of compulsory licensing laws can help to reduce the suppression of important technologies; it is impossible to completely suppress a technology when the law requires that the holder license it to others. While there are some risks associated with expanding compulsory licensing,70 there are tremendous benefits as well. As discussed previously, the constitutional justification for the protection of a patent is to promote scientific and technological progress.71 Given the pressing nature of many of our environmental problems, progress in this area of science and technology is especially important. Expanding the application of compulsory licensing to include more green technologies will promote scientific and technological progress in solving environmental problems. Specifically, compulsory licensing can promote such progress by: 1) ensuring prompt access to important technologies, 2) increasing the likelihood of future innovation, and 3) decreasing judicial inefficiencies. The most obvious advantage of a compulsory licensing policy is that it ensures that technological advances cannot be suppressed. There is no progress when a patent holder obtains a patent and refuses to use the patented technology. In these instances, progress can be slowed by twenty years or more, as current patent laws give a filed patent a life of twenty years, and that timeline may also be extended for various reasons.72 Given the inherent urgency of solving certain environmental problems (such as climate change), a prolonged suppression of important technology could be detrimental. Any social costs associated with the expansion of compulsory licensing may be worthwhile if society can make swift progress in addressing environmental concerns—ending environmental tragedies decades earlier than otherwise possible.

#### Reliance on public sector funding will be too expensive and controversial. IP licensing and incentives will be key driver of tech adoption

Sarnoff & Chon 18 [Joshua, Prof of Law at Depaul College of Law, served as a Distinguished Scholar at the US Patent and Trademark Office, Margaret, Prof for the Pursuit of Justice at the Seattle Univ School of Law, “Innovation Law and Policy Choices for Climate Change-Related Public-Private Partnerships,” *The Cambridge Handbook of Public-Private Partnerships, Intellectual Property Governance, and Sustainable Development*, eds Margaret Chon et al, p.246-7. JCR]

The Paris Agreement placed substantial emphasis on R&D and technology transfer through private markets, contrary to competing recommendations to rely more on public funding11 and despite the many government alternatives that exist for funding technology development and transfer.12 In particular, governments can play an important role in stimulating innovation and technology transfer. Mechanisms that are available for governments to fund, develop, and transfer innovations include public provision of necessary infrastructure, subsidized research, and prioritized public procurement. All of these options can substitute for, supplement, or support market-driven intellectual property (IP) rights. But there are limits to government resources (particularly at local levels), and the public sector “does not always have the resources required to push through new projects independent of the IP-related costs involved.” 13 Given the political difficulties of committing to massive expenditures as public obligations, the choice to rely primarily on private markets and consequent IP rights to generate the bulk of the committed funding for climate change-related mitigation and adaptation technologies hardly comes as a surprise. Reliance on private sector development and transfer thus will encourage the acquisition of IP rights (of differing kinds, to differing degrees, and in various industries) in the hopes of appropriating greater economic returns. In turn, the costs of climate change mitigation and adaptation measures will depend in part on whether specific climate change technologies are subject to IP rights, on how those rights are licensed, and on what technological substitutes are affordably available.14 For example, widely cited assessments have assumed there would be price constraints on patented climate change technologies because of the availability of ready substitutes for existing technologies, or because of development of incremental rather than breakthrough technologies. But these assumptions may not always hold,15 as climate technologies are very diverse. These assumptions are particularly unlikely to be true if we move to novel geoengineering solutions that have not previously been deployed in markets, such as carbon capture and sequestration technologies or solar climate engineering methods (which include the use of aerosols or marine cloud brightening to increase the Earth’s albedo, i.e., reflectivity).16

#### The state is inevitable and key to solve warming—bottom up movements fail and lack the power to change social realities

Eckersley 4 (Robyn Eckersley, 3/5/04, Professor and Head of PoliSci at University of Melbourne, “The Green State: Rethinking Democracy and Sovereignty”, MIT Press, p.5-7) //SJK

While acknowledging the basis for this antipathy toward the nationstate, and the limitations of state-centric analyses of global ecological degradation, I seek to draw attention to the positive role that states have played, and might increasingly play, in global and domestic politics. Writing more than twenty years ago, Hedley Bull (a proto-constructivist and leading writer in the English school) outlined the state’s positive role in world affairs, and his arguments continue to provide a powerful challenge to those who somehow seek to “get beyond the state,” as if such a move would provide a more lasting solution to the threat of armed conﬂict or nuclear war, social and economic injustice, or environmental degradation.10 As Bull argued, given that the state is here to stay whether we like it or not, then the call to get “beyond the state is a counsel of despair, at all events if it means that we have to begin by abolishing or subverting the state, rather than that there is a need to build upon it.”11 In any event, rejecting the “statist frame” of world politics ought not prohibit an inquiry into the emancipatory potential of the state as a crucial “node” in any future network of global ecological governance. This is especially so, given that one can expect states to persist as major sites of social and political power for at least the foreseeable future and that any green transformations of the present political order will, short of revolution, necessarily be state-dependent. Thus, like it or not, those concerned about ecological destruction must contend with existing institutions and, where possible, seek to “rebuild the ship while still at sea.” And if states are so implicated in ecological destruction, then an inquiry into the potential for their transformation or even their modest reform into something that is at least more conducive to ecological sustainability would seem to be compelling. Of course, it would be unhelpful to become singularly ﬁxated on the redesign of the state at the expense of other institutions of governance.¶ States are not the only institutions that limit, condition, shape, and direct political power, and it is necessary to keep in view the broader spectrum of formal and informal institutions of governance (e.g., local, national, regional, and international) that are implicated in global environmental change. Nonetheless, while the state constitutes only one modality of political power, it is an especially signiﬁcant one because of its historical claims to exclusive rule over territory and peoples—as expressed in the principle of state sovereignty. As Gianfranco Poggi explains, the political power concentrated in the state “is a momentous, pervasive, critical phenomenon. Together with other forms of social power, it constitutes an indispensable medium for constructing and shaping larger social realities, for establishing, shaping and maintaining all broader and more durable collectivities.”12 States play, in varying degrees, signiﬁcant roles in structuring life chances, in distributing wealth, privilege, information, and risks, in upholding civil and political rights, and in securing private property rights and providing the legal/regulatory framework for capitalism. Every one of these dimensions of state activity has, for good or ill, a signiﬁcant bearing on the global environmental crisis. Given that the green political project is one that demands far-reaching changes to both economies and societies, it is difﬁcult to imagine how such changes might occur on the kind of scale that is needed without the active support of states. While it is often observed that states are too big to deal with local ecological problems and too small to deal with global ones, the state nonetheless holds, as Lennart Lundqvist puts it, “a unique position in the constitutive hierarchy from individuals through villages, regions and nations all the way to global organizations. The state is inclusive of lower political and administrative levels, and exclusive in speaking for its whole territory and population in relation to the outside world.”13 In short, it seems to me inconceivable to advance ecological emancipation without also engaging with and seeking to transform state power. Of course, not all states are democratic states, and the green movement has long been wary of the coercive powers that all states reputedly enjoy. Coercion (and not democracy) is also central to Max Weber’s classic sociological understanding of the state as “a human community that (successfully) claims the monopoly of the legitimate use of physical force within a given territory.”14 Weber believed that the state could not be deﬁned sociologically in terms of its ends, only formally as an organization in terms of the particular means that are peculiar to it.15 Moreover his concept of legitimacy was merely concerned with whether rules were accepted by subjects as valid (for whatever reason); he did not offer a normative theory as to the circumstances when particular rules ought to be accepted or whether beliefs about the validity of rules were justiﬁed. Legitimacy was a contingent fact, and in view of his understanding of politics as a struggle for power in the context of an increasingly disenchanted world, likely to become an increasingly unstable achievement.16 In contrast to Weber, my approach to the state is explicitly normative and explicitly concerned with the purpose of states, and the democratic basis of their legitimacy. It focuses on the limitations of liberal normative theories of the state (and associated ideals of a just constitutional arrangement), and it proposes instead an alternative green theory that seeks to redress the deﬁciencies in liberal theory. Nor is my account as bleak as Weber’s. The fact that states possess a monopoly of control over the means of coercion is a most serious matter, but it does not necessarily imply that they must have frequent recourse to that power. In any event, whether the use of the state’s coercive powers is to be deplored or welcomed turns on the purposes for which that power is exercised, the manner in which it is exercised, and whether it is managed in public, transparent, and accountable ways—a judgment that must be made against a background of changing problems, practices, and understandings. The coercive arm of the state can be used to “bust” political demonstrations and invade privacy. It can also be used to prevent human rights abuses, curb the excesses of corporate power, and protect the environment. In short, although the political autonomy of states is widely believed to be in decline, there are still few social institution that can match the same degree of capacity and potential legitimacy that states have to redirect societies and economies along more ecologically sustainable lines to address ecological problems such as global warming and pollution, the buildup of toxic and nuclear wastes and the rapid erosion of the earth’s biodiversity. States—particularly when they act collectively—have the capacity to curb the socially and ecologically harmful consequences of capitalism. They are also more amenable to democratization than corporations, notwithstanding the ascendancy of the neoliberal state in the increasingly competitive global economy. There are therefore many good reasons why green political theorists need to think not only critically but also constructively about the state and the state system. While the state is certainly not “healthy” at the present historical juncture, in this book I nonetheless join Poggi by offering “a timid two cheers for the old beast,” at least as a potentially more signiﬁcant ally in the green cause.17

# 2AC

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### 2AC - FW

#### Engagement with climate debates develops understanding of continuous climate evolution – current climate curriculum bad- we internal link turn all their activism, political future, and material praxis offense

Mehling et al. ’20 [Michael, Deputy Director, Center for Energy and Environmental Policy Research (CEEPR), Massachusetts Institute of Technology (MIT), Cambridge, MA, USA; Professor of Practice, University of Strathclyde, Glasgow, UK. (mmehling@mit.edu) Harro van Asselt, Professor of Climate Law and Policy, Centre for Climate Change, Energy and Environmental Law (CCEEL), University of Eastern Finland Law School, Joensuu, Finland. Kati Kulovesi, Professor of International Law, Centre for Climate Change, Energy and Environmental Law (CCEEL), University of Eastern Finland Law School, Joensuu, Finland. Elisa Morgera, Professor of Global Environmental Law, University of Strathclyde, Glasgow, UK, *“Teaching Climate Law: Trends, Methods and Outlook”*, Journal of Environmental Law, <https://advance.lexis.com/api/document?collection=analytical-materials&id=urn:contentItem:62H0-BSY1-JFSV-G3J9-00000-00&context=1516831>, 11/1/2020, LexisNexis, NDawson]

As the exploratory survey presented in this article has shown, climate change presents unique challenges for legal education. It is technically complex and normatively contested, evolves at a dynamic pace and freely crosses established boundaries between academic disciplines, branches of law and levels of jurisdiction. Academic instructors therefore face difficult choices when designing a climate law curriculum. As climate law moves closer to maturity, its academic instruction is displaying a tendency towards specialisation and consolidation, just as climate change becomes increasingly mainstream across the legal curriculum. The breadth, scale and variability of climate law caution against exhaustive coverage of legal doctrine and technical detail in climate law teaching. **Engagement with** central concepts and **debates,** instead, appears more apt to **support students in developing skills** for the continuous understanding of evolving climate law and its mutual interactions with other areas of law. Equally, experiential learning methods hold greater promise as ways to prepare students for the demands of climate law practice. Priorities in climate law education will change over time as policy responses progress and climate impacts grow; by contrast, the ability to integrate evolving sets of facts and rules, a capacity for **critical reasoning and systemic legal thinking**, and sound judgment will **remain decisive skills for future climate lawyers**. Going forward, further study-including, ideally, empirical research using structured interviews and questionnaires-will be warranted to refine our understanding of how climate law is being taught at universities, and how learning can be further improved to reflect evolving needs and circumstances.

### 2AC – Framing

#### Ontologizing the settler-native binary entrenches critique into moralized outrage while precluding affective alliances from forming to pursue decolonization.

Busbridge 17 [Rachel, Alexander von Humboldt Postdoctoral Fellow in Institut für Islamwissenschaft (Institute of Islamic Studies), Freie Universität Berlin, “Israel-Palestine and the Settler Colonial ‘Turn’: From Interpretation to Decolonization,” *Theory, Culture & Society*, First Published: January 23, 2017, p. 1-25, Accessed Online through Emory Libraries]

By way of conclusion, however, I would like to point towards the challenges of the settler colonial paradigm’s insistence on an ontology of absolute polarity of settler and native for the types of political mobilizations and struggles it could inaugurate. To be sure, there are immense difficulties in reckoning with heterogeneity in seemingly permanent structures of settler colonialism which all too easily assimilate nuance into legitimation; these difficulties are only amplified in the context of long-term intractable conflict like that in Israel-Palestine. Yet, as Joyce Dalsheim (2013) has argued in the context of Israeli settlers, the entrenchment of polarized discourse means that we often miss alternative models of political community that may better serve the project of decolonization. It would certainly be a shame for the paradigm’s inconsistencies regarding a decolonization effectively rendered impossible to stand against its broader resonance, just as it would the disciplinary dimensions of the settler colonial ontology to shut down debate – or, indeed, joint mobilization – between those broadly on the same page concerning Palestine. In his work on joint Arab-Jewish activism, Marcelo Svirsky (2014: 328) maintains that what settler colonial studies needs ‘is a corrective ontology and an affective change of heart’. I thus end with the caution that without this affective change in heart the settler colonial paradigm may continue to facilitate transnational solidarity and international sympathy, but may ultimately fail to extend beyond a politics of moral outrage.

### 2AC – Links

#### Violent technology dispersal is the status quo – these patents are being seized and controlled by white corporate owners, enabling exploitation of indigenous people and the developing world. Only the Aff has a hope of disrupting their control

Wilson 21 [Brooke, caseworker at Washington & Lee Univ School of Law Advanced Administrative Litigation Clinic, JD from Washington & Lee Univ, “Past the Tipping Point, but With Hope of Return: How Creating a Geoengineering Compulsory Licensing Scheme Can Incentivize Innovation,” *Washington and Lee Journal of Civil Rights and Social Justice* 27.2, p.806-11, JCR]

Geoengineering technology is a growing industry that appears to be in its beginning phase.96 Prior to 2008, the combined number of patent applications and patents granted for geoengineering technologies did not exceed twenty in a single year.97 Between 2008 and 2013, the number of patent applications for geoengineering technology increased five-fold.98 CDR methods have dominated this recent growth, constituting more than 90% of the geoengineering patents approved by the USPTO. Specifically, of the patents granted, more than half (54%) concern carbon capture, and more than one-third (37%) involve carbon sequestration. Particle-dispersion (4%) and solar-ray reflection (2%) patents commonly recur, with patents involving other various methods making up the difference (3%).99 Between 2001 and 2010, the number of “exotic” geoengineering patent applications increased from two to thirty-one—a 1550% increase.100 Given the early stages of geoengineering technology and lack of established governance framework, intellectual property will likely have a profound impact on the development and use of this type of technology.101 The private sector can and should play a vital role in geoengineering research, subsequent development, and possible implementation because the private sector is the primary source for research, development, production, and services.102 However, within the current scheme of geoengineering technology patents, there are emerging issues.103 Some issues extend to cover all geoengineering patents, while others appear to apply only to specific areas of geoengineering, such as SRM and CDR technologies. The majority of geoengineering patents are assigned to the same patent holders, thus concentrating the potential for this technology in the hands of a few.104 Original patent holders tend to transfer their ownership to many of the same assignees, some of which are non-practicing entities.105 This could allow a few owners to dictate how the field of geoengineering develops.106 Scholars have cautioned against keeping the status quo and allowing the geoengineering industry to develop in the same manner as the biotechnology industry developed.107 One academic speaking on the topic stated: If we continue to deal with geoengineering patents as we did in biotechnology, we would create problems that are similar—or perhaps even worse—because of the high risk, high reward nature of the technology. The patent holders will control whether and how geoengineering technology will be researched and used.108 In the biotechnology industry, the concentration of patent ownership among a few entities incentivized the limited grant of exclusive licenses, incentivized patent owners to charge incredibly high prices, and allowed these patent holders to dictate the development of the industry.109 The critiques of the development of the biotechnology industry parallel many of the global concerns about the distribution of not only geoengineering technology, but more broadly “green” technology.110 “Concerns over patent system and climate change have already caused serious political tensions.”111 Geographic imbalances in patenting behaviors and problems with the costs of technology acquisition for developing countries will “further exacerbate existing intellectual property trade, and scientific differences and [will] generate political tensions along the North-South divide.”112 There are also specific problems tied to the development of CDR technologies.113 Many of these issues arise from the novelty of the field, lack of development of standardized technology, patent examiners’ lack of expertise in the new technology, and applicants’ desires to capture the largest possible grant of protection.114 In this area of geoengineering technology, extremely broad patents are being granted, and there appears to be a “land grab” taking place.115 A land grab “occurs when a lack in clarity of future technologies encourages speculators to seek patents in developing fields, which in turn causes actual inventors to file patent applications to avoid a competitive disadvantage.”116 An example of an extremely broad patent is Patent No. 8,603,424, “CO2-sequestering formed building materials,” which in its own language specifically rejects any limitations upon its terms.117 This patent is not set to expire until November 8, 2029.118 There are three main reasons why a “land grab” and patents, such as No. 8,603,424, are troubling in this space.119 First, geoengineering is in its infancy; scientists have contemplated using technology to combat climate change for fewer than fifteen years.120 Second, many of the granted patents are overly broad and poorly defined.121 Early owners could own huge swaths of the field, thus “deter[ring] future innovation and bestow[ing] control over technology with potentially immeasurable societal value to only a few.”122 Third, granted geoengineering patents tend to be the “building-block patents,” on which later inventions must rely.123 Building-block patents are distinct from “incremental improvement patents, which have a much narrower claim scope.”124 While building-block patents may not be very profitable, they can be crucial for downstream development.125 Conversely, too many building-block patents can “lock up technologies” and slow development. 126 “[T]hey allow patent holders to deny licenses, charge exorbitant royalties, or engage in delaying tactics, most notably litigation.”127 The combination of inventors’ filing applications early on to avoid a competitive disadvantage and the lack of existing geoengineering research make the climate-engineering environment ripe for opportunistic exploitation.128

### 2AC – LT – Sanctions

#### That cements U.S. imperialism and economic control over other countries – the aff uniquely limits U.S. influence

Davis et al. 20 (Robin Davis, Onyesonwu Chatoyer, and Nancy Wright, writers for Hood Communist journal, 4-9-2020, Sanctions Kill: The Devastating Human Cost of Sanctions, Wear Your Voice, https://www.wearyourvoicemag.com/sanctions-kill-the-devastating-human-cost-of-sanctions/

Economic sanctions are a tactic of war that target a particular nation for pressure by leveraging US dominance over the global financial and trade system. Sanctions work by essentially strangling the economy of the targeted nation. Because the system of global capitalism largely uses the US dollar, all international transactions are routed through US banks. This allows US banks to block or freeze individual transactions – or all transactions initiated by or for a particular nation – and also confiscate billions of dollars held by a targeted government upon demand. US global financial dominance also means that the US government can demand banks owned by completely uninvolved countries comply by threatening them with sanctions as well. A recent example of this is when Citibank (a US bank) and Deutsche Bank (a German bank) seized $1.4 billion in Venezuelan gold after the US government applied economic sanctions on the Venezuelan Central Bank. The way the US is able to control who can give and receive money from who and who can do business with who is not dissimilar to how US political and military dominance has allowed them to control the globe in the post World War 2 modern age. The US military is able to drone bomb nearly any person in any colonized country at any time without any consequence – see the illegal assassination of Qasem Soleimani. The US Navy is able to intercept ships (and thus interrupt trade) in nearly any waters at any time – see when they seized a ship headed for Venezuela with food in the Panama Canal. The permanent US seat on the UN security council alongside two other Western imperialist powers with tightly aligned agendas allows it to force global consensus toward regime change again and again and again. Economic sanctions are typically imposed through bills that glide easily through the US House and Representatives and Senate. They can also be imposed through executive order directly from the US president or authorized by a particular US government agency like the Department of the Treasury, State, or Defense – bypassing the system of so-called “checks and balances” entirely. If the US empire desires international support for a particular round of sanctions – as they might if they’re using them as part of broader escalation to war with a particular country – they pursue the support of the European Union, the UN security council, or assorted neo-colonial bodies like the Organization of American States or the African Union. Although rhetoric around sanctions typically holds them up as a kinder, gentler means of bringing nations who do not submit to the will of Western imperialism to heel, the reality of economic sanctions **is starvation and devastation** for the masses of people on the ground in the targeted country. Economic sanctions often indiscriminately target import and export sectors of a given economy, drastically restricting a nation’s ability to generate revenue through trade while also drastically restricting the sorts of goods that a nation can import. The day to day consequences for a sanctioned country are a massive inflation of the national currency, a ruined credit rating that makes it extremely difficult to obtain international loans, huge shortages and high prices for goods like food, medicine, fuel, industrial equipment, and crumbling infrastructure that can not be repaired or replaced because the materials required to do so can not be imported. US economic sanctions are essentially part of a strategy of **compliance through collective punishment**. By design, US sanctions are not targeted in scope and impact at the government of a particular country but rather at the civilian population of that country. The inevitable consequence of restricting a nation’s ability to import and export goods and generate the revenue it needs to function day to day is a collapse in that nation’s economy and thus its ability to provide for the basic needs of its own people. We can look to the African world for a clear example of what this looks like. After the September 1991 coup that deposed President Jean-Bertrand Aristide, the US imposed a round of economic sanctions in Haiti that had a devastating impact on the day to day lives of poor and working class Africans on the island. According to one report released by international public health experts at Harvard University, up to 1000 Haitian children were dying every month after a US trade embargo drastically restricted the nation’s ability to import food, medicine, and vaccines. When questioned on the impact sanctions were having on Haiti’s vulnerable and defenseless children, a US State Department representative, David Johnson, said: “Sanctions are by their very nature a blunt instrument, but they remain the best tool we have at our disposal to bring about the return of democracy in Haiti.” Think about which people in our society are most affected when access to basic necessities is cut off. When the day to day reality is soaring unemployment, high food and fuel prices, greatly limited access to medicine and antibiotics, and underdeveloped housing and medical care – all the most common consequences of economic sanctions. When a nation’s economy has collapsed and it’s state is no longer able to provide for the basic survival of its citizens, the result is a new reality of **instability, shortages, famine, and death** that devastatingly impacts an entire population but which most acutely targets the most vulnerable sectors of our people. Sectors like the elderly, the chronically ill & disabled, the very young, caretakers, and women, queer, trans, and gender variant people – **groups that are already facing constant attack** under patriarchy, capitalism, and colonialism **seeing those attacks heightened** as scarcity ripples through the broader society.

### 2AC – LT – Climate Nationalism

#### The status quo cements climate nationalism. Aff is the only way to prevent intensification of xenophobic violence and climate nationalism.

Karlsson 16 [Rasmus, Senior lecturer in Political Science at Umea University, “The Environmental Risks of Incomplete Globalization,” *Globalizations*, http://bit.ly/2jS3RNS]

Every year, more and more people travel by airplane and are able to experience other countries and cultures first-hand. As the world gets smaller, it is becoming increasingly difficult to deny our common humanity and insist on the artificial segregation of people based on mere geographical luck. Yet, in terms of politics or ideology, there has been surprisingly little interest in even imagining a world with universal freedom of movement and shared prosperity. It is reasonable to think that this disinterest in part derives from deeply entrenched Malthusian beliefs and fears of a coming climate crisis. Malthusian discourse often portrays global climate change as ultimate evidence of irresponsibility, greed or even the “cancer stage of capitalism” (Barry, 2012:138). Such descriptions show little tolerance for learning or humility with regard to the difficulties of the task. There has never been a blueprint for how to build a prosperous planetary civilisation or for how to achieve technological maturity in a way that does not destroy the biosphere. Yet, in a world of seven billion actually existing people, the question is where to go from here? As discussed above, to try to reverse the great structural processes of modernity through intentional localisation does not only seem wholly politically unrealistic, it is also most unlikely to actually deliver greater resilience or environmental sustainability. Yet, the problem of lacking realism is just as acute for those advocating breakthrough innovation or seeking to more fully integrate the world (Karlsson, 2013). In a time of public austerity, rising xenophobia, and an almost complete absence of realistic yet transformative visions at the global level, it is not surprising that climate nationalist responses have emerged as the default policy orientation. While these responses may at best slow the rate of warming, they offer little hope for the 3.5 billion people who currently lack access to modern energy and, as such, they are likely to contribute to the creation of new patterns of climate injustice. They are also problematic in the sense that for every year that a more meaningful response is delayed, the need for CDR grows. Already now, such negative emissions technology has become more or less a necessity for achieving the two degree target according to the scenarios represented in the Intergovernmental Panel on Climate Change (IPCC) database (Anderson, 2015). Whereas breakthrough energy innovation could potentially offer a source of sustained global growth as energy would become significantly cheaper, CDR is always going to come at a net cost. If CDR eventually becomes unaffordable due to prolonged political procrastination and generally inefficient mitigation policies, it is likely that the political momentum will shift towards solar radiation management (SRM) and other more risky forms of climate engineering. Instead of fearfully backing into a warming future, there is an obvious need for bold and proactive political action (Garibaldi, 2014; Karlsson, 2016). Yet, as long as mitigation is perceived as a cost and something that runs counter to broader socio-economic goals, such action is unlikely. While accelerating the transition to a high-energy planet would undoubtedly put strong upward pressure on global emissions in the short run, it would also open up a political opportunity space for effective climate action that does not exist today. In a more equal and integrated world, there would be greater financial and human resources to combat climate change. Most of all, by providing a progressive account of globalisation, there would be a meaningful counter-narrative to both nationalist and neoliberal thinking. For some time it has become obvious that the welfare state stands at a disruptive juncture. Either it can try to protect itself from the world by imposing an international apartheid system as it falters under growing migratory pressure, rising costs for retirement, and a self-inflicted energy crisis or it can confront those fears with a politics of radical engagement and accelerate the transition to a world of universal affluence with an abundance of clean energy and open borders. Doing so would require reviving the belief in the public as an active political subject and defeating both neoliberal passivity and the divisive identity politics of contemporary environmentalism. To bring back high growth rates in the mature economies would require a fundamental reconfiguration away from supply-side economics to real wage growth, broad social investments, and accelerated modernisation (rather than as today, artificially delayed urbanisation and subsidies for low-productive jobs in rural economies). Finally, by providing universal welfare services, in particular education but also health care, social trust can be strengthened and corruption reduced (Rothstein, 2011) at the same time as the economy’s long-term growth potential can be increased. Yet, despite the remarkable scientific advancements of the last centuries, or even decades, Malthusians tend to reject the very possibility of universal affluence and what they pejoratively refer to as a “techno-fix” (Huesemann & Huesemann, 2011). Instead of uncertain technological innovation they like to see deep social changes, essentially a far-reaching epistemological homogenisation by which people everywhere adopt strict regimes of frugality and simplicity. However, just as the solution to the contradictions of capitalism in the 1930’s was neither individual moral reform of the capital-owners nor a socialist revolution of society as a whole but rather the institutionalisation of welfare-capitalism and liberal democracy, it seems far wiser to accept the existence of a pluralist society with competing conceptions of the good life and rather focus on applying technology in a conscious way to overcome environmental determinism. Obviously, this is also a question of political tactics. While ecosocialist literature tends to think of capitalism in the 21st century as a mere elite project, it seems fair to say that the logic of capital accumulation has become almost universal today with widely shared material aspirations reaching from home ownership to international travel. Similarly, large groups in the OECD-economies either have retired already or will do so in the coming decades with considerable expectations in terms of retirement income. Failure to deliver on these pension expectations would probably create a state of political crisis in which the “immigrants” but also the “environment” would be easy targets. For these, and many other reasons, it is not surprising that political elites remain deeply wedded to the idea of economic growth. Yet, insufficient demand due to rising inequality and a lack of social investments have made it difficult to deliver that growth. In the best of worlds, the need for growth could hypothetically make policy-makers more willing to challenge the prevailing supply-side paradigm but also consider the benefits of accelerating globalisation (or at least keeping them away from enacting protectionist measures). While it is obvious that economic growth does not benefit everyone equally, and that it can be source of environmental destruction, the same can be said about the lack of growth. A secular stagnation or even degrowth is certainly no guarantee for environmental protection or greater equality. If anything, the rich are likely to try to isolate themselves even more from the rest of society in case they feel threatened, in particular by moving overseas. It is also not surprising that the literature on degrowth has had almost nothing to say about how such strategies would play out at the international level (including what mechanisms that would be needed to prevent other states from taking military advantage of countries pursuing degrowth) or how exactly economic growth is to be “unlearned” at the micro level. Recognising the difficulties associated with imagining degrowth as an effective way of saving the global environment is not the same as defending “status quo” or embracing neoliberalism. As discussed above, it is the rather the failure of laissez-faire thinking that has made government intervention necessary to ensure both climate stability and a world with more equal opportunities. One common objection against climate innovation is that the real problem is not about limitations of renewable energy sources but about overcoming the entrenched interests of fossil industries. Yet, the fact that large multinational corporations such as ExxonMobil have vast political influence can also be seen as one of the reasons why technological change must be disruptive and go beyond, for instance,the scenariosin the IPCC database. Only by shocking markets through breakthrough innovation does it seem possible to break with the path dependence of existing energy systems in a way that would rapidly displace fossil fuels globally. In terms of strategy, it is also likely that fossil industries will be far more successful in thwarting the deployment of existing inferior technologies than in preventing a more general acceleration of science and technology, which would span multiple fields reaching from nanotechnology to basic physics (Victor, 2011:144) that are not immediately related to energy R&D and as such not subject to the same political economic constraints. In mainstream thinking, globalisation is primarily seen as a driver of environmental destruction as it disconnects “those who make decisions that generate ecological risks” from “the ecological victims who suffer” (Christoff & Eckersley, 2013:189). While few would dispute that globalisation has indeed contributed to the displacement of environmental harms as polluting industries have moved from rich to poor countries, a number of authors including Arthur Mol have argued that globalisation also has the potential of fostering environmental reform and facilitating ecological modernisation throughout the global economy (Mol, 2003). The aim of this paper has been to take that argument further yet by suggesting that the hope of an adequate response to many global environmental risks, and climate change in particular, in fact hinges on an accelerated rate of globalisation leading to economic convergence. A more equal and richer world would not only have better resources to deal with environmental stress and the need for climate adaptation, it would also compel policy-makers to actively pursue the development of breakthrough technologies that would once and for all resolve the climate/energy/population dilemma from the supply-side (Brook et al., 2014:2). By working from the supply-side rather than the demand-side, climate politics can finally be depolarised and the current logical schism between “believers” and “sceptics” can be overcome. Yet, it would be naïve to think that all would welcome a radicalisation of the modern project and the transition to a fully integrated high-energy planet. While such a future would probably reflect widely shared public aspirations to freedom of movement, material security, and environmental protection, cultural perfectionists are likely to decry the blandness of diversity in a world of open borders, eco-socialists are likely to see any “techno-fix” as merely a way of ducking responsibility for what they consider to be necessary social reforms, and libertarians are likely to criticise the government “overreach” implicit in the very notion of taking active responsibility for the global future. Another common objection against breakthrough innovation is that time is too short for fundamentally uncertain research. Such an objection would make perfect sense if there was any faster or safer route to restoring a safe climate and protecting the world against broader Anthropocene risks. This paper has argued that there is no such route, at least as long as the interests of people outside the OECD-countries are to be taken seriously. While sustained poverty abroad may seem to temporarily reduce the urgency of action, it will also lead to further lock-in of existing yet inferior technologies and increase the long-term need for CDR/SRM. The fundamental problem here is the scale illusion by which signals of relative local progress towards perceived “sustainability” overshadow other signals of absolute global failure. Just as the example of Iceland that currently has a 100% renewable electricity supply has not taken the world as a whole any closer to fossil independence, little if anything would be achieved if a handful of the world’s richest countries succeed in their transition to a nonscalable soft energy path. Yet, unfortunately, renewable energy but also the idea of “energy savings” continue to occupy a moral high-ground in the public imagination in ways that make meaningful action extremely difficult and obscure how much energy supply, but also overall consumption rates, must increase in the coming decades to ensure that everyone in the world has a chance of achieving a dignified livelihood. Essentially, by turning the traditional environmental idea of “intentional localisation” on its head, this paper has suggested that what most of all will determine humanity’s future in the Anthropocene is to what extent it will be possible to craft a new progressive narrative of global economic convergence capable of simultaneously overcoming Malthusian determinism and neoliberal ignorance of environmental realities. As Bruno Latour has noted, humanity has to learn to “love its monsters” rather than running away in panic from science and technology out of fear for the world that it has created (Latour, 2011). Only through a more conscious and reflexive relationship to technology is there any hope for humanity to realise its axiological potential (Bostrom, 2003) while building a world in which emancipative values, pluralism, and diversity can flourish.

### 2AC – Perm

#### Contingent legal solutions can avoid re-inscribing settlerism by exposing contradictions within the current law

Bhandar 13 [Brenna, Senior Lecturer in Law at SOAS, University of London Strategies of Legal Rupture: the politics of judgment, http://www.forensic-architecture.org/wp-content/uploads/2013/02/BHANDAR-Brenna.-Strategies-of-Legal-Rupture.pdf]

Strategies of Rupture In this article, my aim is to consider the use of law as a political strategy of rupture in colonial and post-colonial nation states. The question of whether and how to use law in order to transform and potentially shatter an existing political-legal order is one that continues to plague legal advocates in a variety of places, from Australia, to India, to Canada to Israel/Palestine. For example, the struggle for the recognition of indigenous rights in the context of colonial settler regimes has often produced pyrrhic victories.21 The question of indigenous sovereignty is ultimately quashed, and aboriginal rights are paradoxically recognised as an interest that derives from the prior occupation of the land by aboriginal communities but is at the same time parasitic on underlying Crown sovereignty; an interest that can be justifiably limited in the interests of settlement.22 Thus, the primary and inescapable question remains: how does one utilise the law without re-inscribing the very colonial legal order that one is attempting to break down?23 I argue that this is an inescapable dilemma; as critical race theorists and indigenous scholars have shown, to not avail ourselves of the law in an effort to ameliorate social ills, and to promote and protect the rights of oppressed minorities is to essentially abrogate one’s political responsibilities. Moreover, the reality of political struggle (particularly of the anti-colonial variety) is that it is of a diffuse and varied nature, engaging multiple different tactics in order to achieve its ends. The notion of the ruptural defence emerges from the work of Jacques Vergès, a French advocate and subject of a film by Barbet Schroder entitled Terror’s Advocate. The film is as much a portrait of Vergès’ life as it is a series of vignettes of armed anti-colonial and anti-imperial struggle during the decades between the late 1940s and the 1980s. I should say at the beginning that I do not perceive Vergès as a heroic figure or defender of the oppressed; we can see from his later decisions to defend Klaus Barbie, for instance, that his desire to reveal the violence wrought by European imperial powers was pursued at any cost. But in tracing the development of what Verges called the ruptural defence, the film takes us to the heart of the inescapable paradoxes and contradictions involved in using law as a means of political resistance in colonial and post- colonial contexts. I want to explore the strategy of rupture as developed by Verges but also in a broader sense, to consider whether there is in this defence strategy that arose in colonial, criminal law contexts, something that is generalisable, something that can be drawn out to form a notion of legal rupture more generally. To begin then, an exploration of Verges\* 'rupture defence', or rendered more eloquently, a strategy of rupture. At the beginning of the film, Verges comments on his strategy for the trial of Djamila Bouhired, a member of the KLN, who was tried in a military court for planting a bomb in a cafe in Algiers in 1956. Verges states the following in relation to the trial: The problem wasn't to play for sympathy as left-wing lawyers advised us to do, from the murderous fools who judged us, but to taunt them, to provoke incidents that would reach people in Paris, London, Brussels and Cairo... The refusal to play for sympathy from those empowered to uphold the law in a colonial legal order hints at the much more profound refusal that lies at the basis of the strategy of rupture, which we see unfold throughout the film. In refusing to accept the characterisation of Djamila s acts as criminal acts, Verges challenges the very legal categories that were used to criminalise, condemn and punish anti-colonial resistance. The refusal to make the defendants' actions cognisable to and intelligible within the colonial legal framework breaks the capacity of the judges to adjudicate in at least two senses. First, their moral authority is radically undermined by an outright rejection of the legal terms of reference and categories which they are appointed to uphold. The legal strategy of rupture is a politics of refusal that calls into question the justiciability of the purported crime by challenging the moral and political jurisdiction of the colonial legal order itself. Second, the refusal of the legal categorisation of the FLN acts of resistance as criminal brought into light the contradictions inherent in the official French position and the reality of the Algerian context. This was not, as the official line would have it, simply a case of French criminal law being applied to French nationals. The repeated assertion that the defendants were independent Algerian actors fighting against colonial brutality, coupled with repeated revelations of the use of torture on political prisoners made it impossible for the contradictions to be "rationally contained" within the normal operations of criminal law. The revelation and denunciation of torture in the courtroom not to prevent statements or admissions from being admissable as evidence (as such violations would normally be used) but to challenge the legitimacy of the imposition of a colonial legal order on the Algerian people made the normal operation of criminal law procedure virtually impossible.24 And it is in this making impossible of the operation of the legal order that the power of the strategy of rupture lies. In refusing to render his clients\* actions intelligible to a colonial (and later imperial) legal Framework, Verges makes visible the obvious hypocrisy of the colonial legal order that attempts to punish resistance that employs violence, in the same spatial temporal boundaries where the brute violence of colonial rule saturates everyday life. In doing so, this is a strategy that challenges the monopoly of legitimate violence the state holds. Verges aims to render visible the raise distinction between common crimes and political crimes, or more broadly, the separation of law and politics.25 The ruptural defence seeks to subvert the order and structure of the trial by re-defining the relation between accuser and accused. This illumination of the hypocrisy of the colonial state questions the authority of its judiciary to adjudicate. But more than this, his strategy is ruptural in two senses that are fundamental to the operation of the law in the colonial settler and post-colonial contexts. The first is that the space of opposition within the legal confrontation is reconfigured. The second, and related point, is that the strictures of a legal politics of recognition are shattered. In relation to the first point, a space of opposition is, in the view of Fanon, missing in certain senses, in the colonial context. A space of opposition in which a genuinely mutual struggle between coloniser and colonised can occur is denied by spatial and legal-political strategies of containment and segregation. While these strategies also exhibit great degrees of plasticity2", the control over such mobility remains to a great degree in the hands of the colonial occupier. The legal strategy of rupture creates a space of political opposition in the courtroom that cannot be absorbed or appropriated by the legal order. In Christodoulidis' view, this lack of co-option is the crux of the strategy of rupture. This strategy of rupture also points to a path that challenges the limits of a politics of recognition, often one of the key legal and political strategies utilised by indigenous and racial minority communities in their struggles for justice. Claims for recognition in a juridical frame inevitably involve a variety of onto-epistemological closures.2' Whether because of the impossible and irreconciliable relation between the need for universal norms and laws and the specificities of the particular claims that come before the law, or because of the need to lit one's claims within legal- political categories that are already intelligible within the legal order, legal recognition has been critiqued, particularly in regards to colonial settler societies, on the basis that it only allows identities, legal claims, ways of being that are always-already proper to the existing juridical order to be recognised by the law. In the Canadian context, for instance, many scholars have elucidated the ways in which the legal doctrine of aboriginal title to land imports Anglo- American concepts of ownership into the heart of its definition; and moreover, defines aboriginality on the basis of a fixed, static concept of cultural difference. The strategy of rupture elides the violence of recognition by challenging the legitimacy of the colonial legal order itself. In an article discussing Verges\* strategy of rupture, Emilios Christodoulidis takes up a question posed to Verges by Foucault shortly after the publication of Verges' book, De La Strategic Jiwuiare, as to whether the defence of rupture in the context of criminal law trials in the colony could be generalised more widely, or whether it was "not in fact caught up in a specific historical conjuncture." In exploring how the strategy of rupture could inform practices and theory' outside of the courtroom, Christodoulidis characterises the strategy of rupture as one mode of immanent critique. As individuals and communities subjected to the force of law, the law itself becomes the object of critique, the object that needs to be taken apart in order to expose its violence. To quote from Christodoulidis: Immanent critique aims to generate within these institutional frameworks contradictions that are inevitable (they can neither be displaced nor ignored), compelling (they necessitate action) and transformative in that (unlike internal critique) the overcoming of the contradiction does not restore, but transcends, the 'disturbed' framework within which it arose. It pushes it to go beyond its confines and in the process, famously' in Marx's words, "enables the world to clarify' its consciousness in waking it from its dream about itself” 29 Christodoulidis explores how the strategy of rupture can be utilised as an intellectual resource for critical legal theory and more broadly, as a point of departure for political strategies that could cause a crisis for globalised capital. Strategies of rupture are particularly crucial when considering a system, he notes, that has been so successful at appropriating, ingesting and making its own, political aspirations (such as freedom, to take one example) that have also been used to disrupt its most violent and exploitative tendencies. Here Christodoulidis departs from the question of colonialism to locus on the operation of capitalism in post-war European states. It is also this bifurcation that I want to question, and rather than a distinction between colonialism and capitalism, to consider how the colonial (as a set of economic and political relations that rely on ideologies of racial difference, and civilisational discourses that emerged during the period of European colonialism) is continually re-written and re-instantiated through a globalised capitalism. As I elaborate in the discussion of the Salwa Judum judgment below, it is the combination of violent state repression of political dissent that finds its origins (in the legal form it takes) during the colonial era, and capitalist development imperatives that implicate local and global mining corporations in the dispossession of tribal peoples that constitutes the legal- political conflict at issue. After the Trial: From Defence to Judgement "Les bons juges, comme les hero de la presse du coeur, n'existent pas."30 In response to a question from Jean Lapeyrie (a member of the Action Committee for Prison- Justice) during a discussion of De La Strategic Judiciare published as the Preface to the second edition, Verges remarks that there are actually effective judges, but that they are effective when forgetting the essence of what it is to be a judge.51 The strategy of rupture is a tactic utilised to subvert the order and structure of a trial; to re-define the very terms upon which the trial is premised. On this view, the judge, charged with the obligation to uphold the rule of law is of course by definition not able to do anything but sustain an unjust political order. In the film Terror'^ Advocate, one is left to wonder about the specificities of the judicial responses to the strategy deployed by Verges. (Djamila Bouhired, for instance, was sentenced to death, but as a result of a worldwide media campaign was released from prison in 1962). While I would argue that the judicial response is clearly' not what is at stake in the ruptural defence, I want to consider the potentiality of the judgment to be ruptural in the sense articulated by Christodoulidis. discussed above. Exposing a law to its own contradictions and violence, revealing the ways in which a law or policy contradicts and violates rights to basic political freedoms, has clear political-legal effects and consequences. Is it possible for members of the judiciary to expose contradictions in the legal order itself, thereby transforming it? Would the redefinition, for instance, of constitutional provisions guaranteeing rights that come into conflict with capitalist development imperatives constitute such a rupture? In my view, the re-definition of the limitations on the guarantees of individual and group freedom that are inevitably and invariably utilised to justify state repression of rights in favour of capitalist development imperatives, security, or colonial settlement have the potential to contribute to the re-creation of political orders that could be more just and democratic. We may be reluctant to ever claim a judgment as ruptural out of fear that it would contaminate the radical nature of this form of immanent critique. Is to describe a judgment as ruptural to belie the impossibility of justice, the aporia that confronts every moment of judicial decision- making? I want to suggest that it is impossible to maintain such a pure position in relation to law, particularly given its capacity (analogous to that of capital itself) for reinvention. Thus, I want to explore the potential for judges to subvert state violence engendered by particular forms of political and economic dispossession, through the act of judgment. In my view, basic rights protected by constitutional guarantees (as in the Indian case) have been so compromised in the interests of big business and development imperatives, that re-defining rights to equality, dignity and security of person, and subverting the interests of the state-corporate nexus is potentially ruptural, in the sense of causing a crisis for discrete tentacles of global capitalism. At this juncture, we may want to explicitly account for the specific differences between criminal defence cases and Verges' basic tactic, which is to challenge the very jurisdiction of the court to adjudicate, to define the act of resistance as a criminal one and constitutional challenges to the violation of rights in cases such as Salwa Judum. While one tactic seeks to render the illegitimacy of the colonial state bare in its confrontation with anti-colonial resistance, the other is a tactic used to re-define the terms upon which political dissent and resistance take place within the constitutional bounds of the post-colonial state. These two strategies appear to be each other's opposite; one challenges the legitimacy of the state itself through refusing the jurisdiction of the court to criminalise freedom fighters, while the other calls on the judiciary to hold the state to account for criminalising and violating the rights of its citizens to engage in political acts of dissent and resistance. However, the common thread that situates these strategies within a singular political framework is the fundamental challenge they pose to the state's monopoly over defining the terms upon which anti-colonial and anti-capitalist political action takes place.

### 2AC – Alt

#### DA to the alt: Description of whiteness “as” monopoly reproduces capitalist market logics – interpreting the social through economic metaphors constrains political imagination and turns the solvency of the alt

Hinton 15 [Kip Austin, Assistant Professor, The University of Texas Rio Grande Valley, “Should We Use a Capital Framework to Understand Culture? Applying Cultural Capital to Communities of Color,” Equity & Excellence in Education, 48(2), 299-319, 2015]

Influence of an Economic Metaphor on Communities of Color

It makes sense for a neoliberal economist to embrace the prism of social or cultural capital, because economic research frequently interprets the world as a primarily economic sphere. But what about when a social justice educator embraces social or cultural capital? Many social justice advocates do not define the world in economic terms, and do not see market forces as the primary solution to oppressive systems. Capitalism promotes hegemony, not social justice. The agenda of capital has always run counter to the goals of community empowerment: “Within this transformed system, capital demanded that the household function as a factory” (Perelman, 2000, p. 74). According to Weber, the mere existence of family relationships presents an obstacle to capitalism (Collins, 1986, p. 269). Decades ago, Apple (1971) warned that schools were slipping into a marketplace orientation, prioritizing “maintenance of the same dominant world-view” (p. 27). Public institutions have indeed become more market-driven, focused on capital in a way that disempowers communities of color, making it harder to enact democratic reforms (Apple, 2006; Clawson & Leiblum, 2008). Metaphorical capital does not contribute to this directly, but rather indirectly—through metaphor.

Across metaphorical capitals, each framework is fundamentally economic. Research on funds of knowledge and community cultural wealth mimic economic vocabulary without a conception of investment or of supply and demand. Looking to the source, Bourdieu’s (1977) prominent theories are influenced by the economic work of Marx (2011). This makes it particularly notable that Bourdieu himself ignores most aspects of economic capital when he applies it to cultural interaction. Bourdieu does not theorize systems of exchange, return on investment, loans, entrepreneurship, or the actions of cultural capitalists. In fact, Bourdieu’s original concept is somewhat analogous to money, not to capital. Successive theorists have been reluctant to move beyond Bourdieu’s initial, imprecise articulations (Dika & Singh, 2002; Lin, 1999). So, although it may be unusual to come across a theory of race that ignores racism, it is common for a theory of capital to ignore capitalism.

Metaphors have influence. In a metaphor, one domain of human thought is superimposed on a different domain, creating important influence on the receiving domain (Barcelona, 2003). Lakoff (2004) and others have explained how a repeated metaphor reifies in our consciousness, even altering neural processes (Kovecses, 2010). The way any issue is framed, writes Mehta (2013), ¨ “changes the nature of the debate” (p. 292). A problem’s definition is a political consideration, deeply influencing which questions we ask, and which solutions we consider (Lakoff & Pinker, 2007; Sandikcioglu, 2003). This is illustrated by prominent metaphors in the languages of industrialized nations. We use money metaphors to think about time (spend time, living on borrowed time); we use war metaphors to think about arguments (defend a position, surrender a point). As Lakoff and Johnson (2003) explain, we do not explain arguments using a dance metaphor (p. 5), but if we did, it would influence the way we see our opponents/partners.

In the case of culture, are there limits to what education researchers are willing to characterize as capital? Derrida and Moore (1974) warn us of “deploying” metaphors “without limit”: “Consequently the reassuring dichotomy between the metaphorical and the proper is exploded” (p. 74). S. Smith and Kulynych (2002) claim social capital confuses analytical categories because capital is inextricably tied to economic discourse; this critique applies to all forms of metaphorical capital. In public consciousness, capital will not be divorced from capitalism. Deployments of metaphorical capital, therefore, impose the economic worldview of capitalism. These theories position capital and wealth as the normal ways of defining a relationship. Even if such theories were revised to reflect money instead (e.g., “cultural currency”), they would still precariously assume that human interaction can and should be explained in economic terms.

Metaphorical capital advances an economic framework that interprets educational or cultural situations as capitalist, neoliberal, and market-based. We have adopted a specific paradigm, and now that paradigm dictates policy options (P. Hall, 1993). Neoliberal solutions, including standardized testing and charter schools, already dominate education reform (Jones & Vagle, 2013). Political and social critiques are central to critical race theory—yet are marginalized by neoliberal discourse. It is significant that Friedman (1997), one of the most influential proponents of capital and capitalism, advocated privatization of all public schools through vouchers. Rather than functioning as independent fields, education and economics are deeply connected, often in destructive ways. In the past decades, education research has seen an increase in both capitalrelated social theory and the influence of economics. Privatization and corporatization have increased throughout education systems (Saltman, 2012). Aside from the direct harm caused by market-based reform (Burch, 2009; Saltman, 2000), corporatization has reinforced the economic worldview that was embodied by metaphorical capital. Education reports are filled with finance-related vocabulary: funds, investment, value-added, stakeholder, productivity, buy-in. Economic perspectives infringe on discussions about students, even when topics are ostensibly unrelated to money. “This is the extent of capitalism’s hegemony, that it has colonized our capacity to imagine alternatives” (Hickel & Khan, 2012, p. 221). Language influences thought, and educators begin to accept the market mindset. We normalize an inequitable power structure. The capitalist viewpoint becomes the normal way to see everything, and its opportunistic oppression, likewise, becomes normal. It is not surprising, then, that the assets of communities of color go unrecognized—and as I write this, I struggle to explain the limitations of a capitalist frame without reproducing that frame, with my problematic word choice, “assets.”

Freire (1970) has been influential among scholars who rely on metaphorical capital to write about students of color. It is significant that Freire employs economic metaphors to represent the problem (Oughton, 2010): “Banking education” is his name for the method that dehumanizes students (Freire, 1970, p. 73). Freire recognizes economic power as a destructive force at play in the lives of the poor. He consistently opposes multiple elements of the neoliberal agenda, especially the prioritization of capital (Carnoy, 1998; Freire, 1998). Throughout his work, Freire offers ways to counter the commodification of students and promote true democracy (Marginson, 2006). A Freirean analysis of metaphorical capitals, then, notices the neglect of power relations and the depiction of human relationships as economic exchanges.

Hegemonic cultural values, says Gramsci (2011), are those that are accepted as inevitable. The status quo of the economic system cannot be separated from the status quo of the education system. Gramsci embraces education, believing the development of working class intellectuals will reshape the status quo. Gramsci recognizes resistance and promotes agency, in ways that are echoed by community cultural wealth. Though Gramsci opposes economism, he never claims culture, education, and economics are independent (Jessop & Sum, 2006). These are multiple facets of a single, comprehensive system of power. That is to say, there is no such thing as a non-economic policy goal. Do we choose capital as a metaphor because it is the best metaphor, or because it is the one we are familiar with? A Gramscian analysis by Torres (2013) examines the way a neoliberal framework asserts itself as common sense within educational reforms. In a capitalist system, power is allocated to the financially powerful, structuring our self-definitions. As participants in a capitalist system, capital is our common sense, our default, so it is not a surprise that we append the word even when it is unnecessary. These are “tacit, discursive endorsements of neoliberal ideology” (Ayers, 2005, p. 535). From a social justice perspective, metaphors are not arbitrary tools to assign without consequence. They make claims about truth, using rhetoric that “cannot be neutral” (Derrida & Moore, 1974, p. 41). Discourse matters, whether within controversies over Native American mascots (King & Springwood, 2001) or a politician’s description of a war as a “crusade” (Kellner, 2007). Power relations connect seemingly innocuous discursive practices to broader practices of political rhetoric, discrimination, and global financial institutions (McKenna, 2004). In an analysis of community college mission statements, Ayers (2005) concludes that “neoliberal discourse” directs attention to market concerns, so “curriculum is likely to become heavily laden with a market ideology that reinforces and reproduces power asymmetries” (p. 546). By repeating neoliberal vocabulary, frameworks of metaphorical capital have potentially weakened democracy by re-inscribing a framework of capitalism. Even when a particular study’s content works against oppression, language choices may not.

Although market-based education reforms have become more powerful, those who promulgate theories of metaphorical capital have become less likely to have academic understanding of capital itself (Dika & Singh, 2002). Cultural neglect of students of color cannot be logically separated from the economic exclusion they face, as irrelevant curriculum leads to higher pushout rates (M. Fine, 1991; Solorzano & Yosso, 2001). Yes, the cultures of black, Latina/o, Native ´ American, and Asian American students deserve equal footing inside classrooms, and this is true even—or especially—when those cultural practices are not easily framed as a form of capital. I am inspired by Yosso (2005) in her referral to Anzaldua’s (1990) call for a more empowering ´ theory. Yet I think of Lorde’s (1984) warning, “the master’s tools will never dismantle the master’s house,” because those tools keep a part of us stuck within “the master’s relationships” (p. 123). Wealth and capital are the capitalist’s tools, the capitalist’s relationships. These are not ethical relationships (Schweickart, 2002). The dominance of financial vocabulary empowers non-human (and inhumane) relationships, through capitalism. These are the relationships between supply and demand; between capital and commodity; between powerful and powerless; between legislation and corporation. As argued by Giroux and Giroux (2006), global capital is responsible for making the wealth and achievement gaps worse for black and Latina/o communities.

I specifically claim that this supposed metaphorical capital is not capital at all. As social justice researchers, we are not neutral; we seek ways to fight oppressive conditions. Yet by basing our metaphors on capital, our theoretical frameworks promote a worldview that is inconsistent with our own goals. Letting go of the metaphor of capital, we may find more relevant and more ethical ways to theorize culture.

#### Transition is impossible during crisis – low-income countries are abandoned by the alternative.

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(Gabor, Maria, and Tamas, “How big is big enough? Toward a sustainable future by examining alternatives to the conventional economic growth paradigm”, published by ERP Environment and John Wiley & Sons Ltd, 4-25-2018, Wiley Online Library, acc. 6-25-2018)//kb

4.4 Shortcomings of the alternatives Alternatives to the conventional growth economy have much to offer, but they also face legitimate criticism, especially regarding their preconditions and the feasibility of the transition they propose. The first major, pragmatic critique of negative and zero growth is that transition is not very popular in times of crisis, and fear of unemployment and a decline in living standards may be major obstacles to change (Kallis et al., 2012). van den Bergh (2011) argues that alternative lifestyles have always existed, but—by definition—are not accepted by the majority. (However, many now mainstream ideas were once also considered insignificant, and a period of crisis can be seen as a window of opportunity for pushing changes through.) Second, Sorman and Giampietro (2013) warn that a transition can only be forced upon societies, but—for unspecified reasons—never achieved voluntarily or through collective choice. This approach suggests that it is highly unlikely that a negative or zero growth economy will ever arise voluntarily within cultures that are generally composed of individuals seeking ever‐higher levels of income and consumption (Buch‐Hansen, 2018; Hamilton & Denniss, 2005). Third, a lack of precise knowledge and successful narratives concerning alternatives is also an obstacle. Trainer (2010) claims that transitioning to a negative or zero growth economy voluntarily is very unlikely if practical experience is insufficient. Alexander (2013) also considers the lack of experience and infrastructure to be important obstacles to the creation of simpler lifestyles (e.g., it is difficult to exit car culture without the existence of safe and accessible cycle paths). Another major critique (based on Maslow's, 1954 thesis) is that voluntary reductions in consumption may be lucrative and attractive only in wealthy countries where basic needs are already satisfied, and thus the approach does not properly address sustainability problems in low‐income countries. Thus, the question of whether “developing” low‐income countries should develop according to the conventional (or positive) growth paradigm remains open. For countries which are in a state of overshoot, it can be argued that negative growth should continue until a “steady‐state” is reached—that is, when ecological limits are fully observed (e.g., Goodland and Daly, 1996)—but from a policy perspective, it is still difficult to know when this point has been achieved.

#### Refusal fails

Laing 15, Ph.D. candidate, School of Geographical and Earth Sciences, College of Science and Engineering, University of Glasgow (Anna Frances Laing, January 2015, “Territory, resistance and struggles for the plurinational state: the spatial politics of the TIPNIS Conflict,” Ph.D. thesis, pgs. 215-216, http://theses.gla.ac.uk/5974/7/2015laingphd.pdf)

The use of indigeneity as a common signifier has fostered mobilisation across different ethnic groups. This process has been aided by NGOs and técnicos (technical experts) that accompanied the Eighth and Ninth Marches. NGO representatives facilitated meetings, provided training, funded activities and constructed written announcements and texts. These mediatory actors therefore helped to re-articulate the grievances of the marchers under the banner of indigenous rights. This could be seen in the writing of open letters to the government during both the Eighth and Ninth Marches, made possible through the aid of technical experts from one of the principle legal organisations defending indigenous rights in Bolivia CEJIS (Centro de Estudios Jurídicos e Investigación Social; Centre of Legal Studies and Social Investigation). Therefore, in order to ‘speak’ and be heard, the indigenous peoples have to undergo a process of representation through the language of legal rights. They therefore remain ‘subaltern’ because their attempts at self-representation fall outside the ‘the lines laid down by the official institutional structures of representation’ (Spivak 1996: 306). Thus, Glenn (2011) contends that the UN Declaration on the Rights of Indigenous Peoples is ironic since it seeks the recognition of alternative epistemologies through civic institutions that have homogenising and universalising tendencies. However, as Fabricant notes in her work with the Landless Peasants Movement in Bolivia, movements ‘take NGO ideas and meld them with their own creative strategies to come up with solutions that will work for their communities’ (2012: 120). Moreover, Gustafson (2009b) offers a balanced interpretation of the ways that NGOs offer a language and model for politicising alternative worldviews. The indigenous movement consciously reifies certain strategic essentialisms whilst at other times actively resisting them. Indeed, indigenous knowledges do not exist outside of other knowledge forms (Walsh 2002). As Walsh argues ‘[t]he efficacy of the movement in fact derives from its ability to construct and use the correspondences among various contemporary knowledge positions […] in order to exercise political tactics and strategies’ (2002: 71). A politics of refusal is unlikely to advance indigenous demands. As such, Hale suggests an analytical framework based on the Gramscian notion of articulation to ask: will the subjugated knowledge and practices be articulated within the dominant, and neutralised? Or will they occupy the space opened from above while resisting its built in logic, connect with others, toward ‘transformative’ cultural-political alternatives that still cannot be fully imagined? (2002: 499). Indeed, there is the danger that identifying under a single indigenous label risks losing the complexities and processes that permeate the heterogeneous inter-ethnic collectivity of the lowland indigenous movement. This acts to disembody the identity claims from some of the more radical tangents of the movement. Mexican anthropologist Miguel Alberto Bartolomé argues that indigenous autonomy should contemplate ‘new modes of [interethnic, inter-cultural] social articulation that are more egalitarian than existing [ones]’ and that a multi-ethnic state ‘should explore all possible paths in the search for novel forms of conviviality between culturally distinct groups’ (2005: 146 cited in Gustafson 2009a: 998). Escobar similarly calls for a decolonisation that ‘can be started in earnest from a deessentialized perspective’ (2008: 305). Indeed, the movement seeks the recognition of plurality without the homogenisation of indigenous cultures or ideologies or the ranking of difference that necessarily works to subordinate some cultures and let others dominate. This project of emancipatory societal transformation is an on-going challenge for the lowland indigenous movement.

#### Refusal leads to conservative cooptation

Pain et al. 12, Professor in the Department of Geography, Durham University; Geography & Sustainable Development - Senior Lecturer, University of St. Andrews; University of Glasgow (Rachel Pain; Mike Kesby; Kye Askins, “The politics of social justice in neoliberal times,” Area, 44 (1). pp. 120-123. ISSN 0004- 0894, http://eprints.gla.ac.uk/98223/1/98223.pdf)

We agree with Gregson et al’s (2011) observation that the impact agenda may be both evidence of and an opportunity to challenge the neoliberalisation of higher education. Our critique of opposition to the impact agenda was a call to reflect on the degree to which the defence of ‘blue skies’ and ‘autonomous’ research is a defence of a particular expression of those values shaped by previous Research Assessment Exercises (RAE). Our intervention sought to re-produce audit in ways that support the agendas both we and Slater value, and to do this before the meaning of ‘impact’ solidifies and produces entirely neoliberal effects. Slater is right that there are dangers in a strategic, more positive engagement. Such tactics entail tensions and discomforts, leave us exposed, and their politics are unfinished and require continuous working through. We recognise that such resistance, through reworking meaning, runs the paradoxical risk of (re)circulating discourses that retain the potential to effect neoliberal agendas - even if we are successful in making them do other work as well. But a politics of refusal/non-engagement is precarious in ceding control over the meaning of key discourses to those who don’t share a radical vision for the academy. This is a hopeful but not naïve politics. Subverting academic governance is also about disrupting and revealing it as constructed and transmutable through engagement. In this vein, participatory geographers continue alternative traditions, such as collective naming as a response to academic individualism (Autonomous Geographies Collective 2010; mrs kinpaisby 2008) and pursuing direct action as means to research praxis (Mason forthcoming; Routledge 2011). Such examples, small and large, practice alternatives to saying “no”. Slater argues for having an impact and being political through teaching. We agree wholeheartedly. In answer to his question ‘might we find innovative ways to get our students to ‘participate ’ too, with a view to contesting the institutional arrangements governing higher education?’ (p6), we point to participatory pedagogies: to undergraduate modules where geography students collaborate in research with local activists and community organisations (Kindon and Elwood 2009, Mountz et al 2008; Pain et al forthcoming); to academic geographers’ support of student protests in the UK (Hopkins et al 2011); to the burgeoning number of PhDs working with communities and grassroots organisations (come to any RGS/IBG Participatory Geographies Research Group event); and to attempts to engage school children to think critically about geography, drawing on their own knowledges of place (see http://thegeographycollective.wordpress.com). Participation in social justice movements can be integrated into all aspects of academic activities (see Leeds University’s Masters programme in Activism and Social Change): teaching a politics of social justice in the classroom is just part of this. We agree that the separation between research and teaching engendered by RAE/REF reflects the logic of accountancy rather than the experience of academic practice, and this is precisely why we argue for a much broader conceptualisation of ‘impact’ that holds the potential for recognising that learning and teaching activities are interconnected with research.

#### No single causes or cures. Even if instances of injustice share traits does NOT justify transcendental attribution to a single social force – theories are only useful so far as they attend to the specifics of the situation.

Pappas 17 (Gregory Fernando Pappas, Professor at Texas A&M University, author of Pragmatism in the Americas, and John Dewey's Ethics: Democracy as Experience, Fulbright Scholar, recipient of a Ford Foundation Postdoctoral Fellowship, the William James and the Latin American Thought prizes by the American Philosophical Association, and the Mellow Prize by the Society for the Advancement of American Philosophy, “Empirical Approaches to Problems of Injustice Elizabeth Anderson and the Pragmatists,” in *Pragmatism and Justice*, eds. Susan Dieleman, et al., Oxford University Press, 2017, p.82-96)

Pragmatism: Problematic Situations of Injustice as Starting Point Anderson’s claim is that the pragmatists’ “method is unorthodox” because it starts “from a diagnosis of injustices in the actual world” (2010, 3). However, under Dewey’s formulation, the pragmatist methodology is more “unorthodox” and more demanding than Anderson thinks it is, because beginning with a diagnosis is already to start with a theoretical account and not with the concrete problems of injustice as they are experienced in the midst of social life. Let us examine the methodological reasons why Dewey thinks designation should precede diagnosis in an empirical philosophy. In Experience and Nature, Dewey names the empirical way of doing philosophy the “denotative method” (LW 1:371). What Dewey means by “denotation” is simply the phase of an empirical inquiry where we are concerned with designating, as free from theoretical presuppositions as possible, the concrete problem (subject matter) for which we can provide different and even competing descriptions and theories. Once we designate the subject matter, we then engage in the inquiry itself, including diagnosis, possibly even constructing theories and developing concepts. Of course, that is not the end of the inquiry. We must then take the results of that inquiry “as a path pointing and leading back to something in primary experience” (LW 1:17). This looping back is essential, and it never ends as long as there are new experiences that may require a revision of our theories. Injustices are events suffered by concrete people at particular times and in particular situations. We should start by pointing out and describing these problematic experiences, instead of starting with a theoretical account or diagnosis of them. Dewey is concerned with the consequences of not following the methodological advice to distinguish designation from diagnosis. Definitions, theoretical criteria, and diagnosis can be useful; they have their proper place and function once inquiry is on its way. But if stressed too much at the start of inquiry, they can lead us to overlook aspects of concrete problems that escape our theoretical lenses. We must attempt to designate the subject matter pretheoretically, i.e., to “point” in a certain direction, even if it’s with only a vague or crude description of the problem. This is a difficult task for philosophers because we are often too prone to interpret the particular problem in a way that confirms our most cherished theories of injustice. One must be careful to designate the subject matter in such a way as to not slant the question in favor of one’s theory or theoretical preconceptions. A philosopher must make an honest effort to designate the injustices based on what is experienced as such, because a concrete social problem (e.g., injustice) is independent of and neutral with respect to the different possible competing diagnoses or theories about its causes. Moreover, without this effort, there is no way to test or adjudicate between competing accounts. That designation precedes diagnosis is true of any inquiry that claims to be empirical. To start with the diagnosis is to start with something other than the problem. The problem is pretheory or preinquiry not in any mysterious sense, but simply in the sense that it is first suffered by someone in a particular context. Otherwise, efforts to diagnose the causes of the problem lack an object and the inquiry cannot even be initiated. In his Logic, Dewey lays out the pattern of all empirical inquiries. All inquiries start with what he calls an “indeterminate situation,” prior even to a “problematic situation” (LW 12). Here is a sketch of the process: Indeterminate situation → Problematic situation → Diagnosis: What is the problem? What is the solution? (operations of analysis, ideas, observations, clarification, formulating and testing hypothesis, reasoning, etc.) → Final judgment (resolution: determinate situation). To make more clear or vivid the difference between Anderson and Dewey on the starting point, we can use the example of medical practice. The doctor’s starting point is the experience of a particular illness of a particular patient, i.e., concrete and unique embodied patients experiencing a disruption or problematic change in their lives (LW 6:6). The problem becomes an object of knowledge once the doctor engages in certain interactions with the patient, analysis, and testing, which lead to a diagnosis. For Dewey, “diagnosis” occurs when the doctor is engaged in operations of experimental observation in which she is already narrowing the field of relevant evidence, concerned with the correlation between the nature of the problem and possible solutions. Dewey uses the example of the doctor to emphasize the radical contextualism and particularism of his view. The good doctor never forgets that this patient and “this ill is just the specific ill that it is. It never is an exact duplicate of anything else” (MW 12:176). Similarly, the empirical philosopher in her inquiry about an injustice brings forth general knowledge or expertise to an inquiry into the causes of an injustice. She relies on sociology and history, as well as knowledge of all forms of injustice, but it is all in the service of inquiry about the singularity of each injustice suffered in a situation. Just as with the doctor, empirical inquirers about injustice must return to the concrete problem for testing, and should never forget that their conceptual abstractions and general knowledge are just means to ameliorate what is particular, context- bound, and unique. The correction or refinement that I am making to Anderson’s characterization of the pragmatists’ approach has methodological and practical consequences for how we approach an injustice. The distinction between the diagnosis of the problem and the designation of the problem (the illness, the injustice) is an important functional distinction that must be kept in inquiry because it keeps us alert to the provisional and hypothetical aspect of any diagnosis. To rectify or improve any diagnosis we must return to the concrete problem; as with the patient, this may require attending as much as possible to the uniqueness of the problem. This is in the same spirit as Anderson’s preference for an empirical inquiry that tries to “capture all of the expressive harms” in situations of injustice (2010, 6). But this requires that we begin with and return to concrete experiences of injustice rather than beginning with a diagnosis of the causes of injustice provided by studies in the social sciences. For instance, a diagnosis of causes that are due to systematic, structural features of society or the world disregards aspects of the concrete experiences of injustice that are not systematic and structural. Making the designation of problematic situations of injustice our explicit methodological starting point functions as a directive to inquirers to locate the problem before venturing into descriptions, diagnosis, analysis, clarifications, hypothesis, and reasoning about the problem. These operations are instrumental to its amelioration and must ultimately return to and be tested against the problem that sparked the inquiry. This directive makes inquirers more attentive to the complex ways in which such differences as race, culture, class, or gender intersect in a problem of injustice. Sensitivity to complexity and difference in matters of injustice is not easy; it is a very demanding methodological prescription because it means that no matter how confident we may feel about applying solutions designed to ameliorate systematic evil, our cures should try to address as much as possible the unique circumstances of each injustice. This directive is not opposed to inquiry into how big categories (race, capitalism, colonialism, modernity) produce and perpetuate injustices. However, such abstract and general inquiries are ultimately just tools to illuminate particular injustices, just as knowledge of research about diseases of entire populations can assist a doctor. The directive keeps us honest, fallible, and aware of our limitations as intellectuals because it implies that there is always a gap between our best diagnoses and theories of injustice, and the concrete problems of injustice. We cannot assume that our theories or our ways of gathering evidence have captured all there is in concrete problematic contexts. This is relevant to the second qualification that I want to make to Anderson’s characterization of pragmatism as a nonideal: the breadth of experiential resources. Pragmatism: A Broad View of the Experiential Resources for Inquiry Given its starting point, pragmatism has a broad view of the initial experiential material to be analyzed by inquiry. Contrary to what Anderson seems to suggest, there is no good reason for a pragmatist approach to injustice to limit its experiential resources to the empirical research and material provided by scientific studies. In fact, without the use of other resources, we risk not capturing those aspects of injustices that may not be amenable to scientific types of inquiry. Starting inquiry with the features of events or injustices that are already known or as they are diagnosed or accounted for by a scientific investigation (such as the social sciences) is valuable, but prior to these theoretical lenses there is the problem experienced (sometimes suffered) by concrete human beings in their robust and raw character. We cannot ignore the crudities of life just because they are crude. In making a diagnosis, we are already reflectively removed from the problem and have been selective in disregarding those features that seem irrelevant to our inquiries. For pragmatism, admitting the selectivity of theoretical lenses in all inquiries does not undermine the notion that some inquiries are better than others (more on this later). But it does imply that what scientific research reveals about a concrete problem is partial and may need to be supplemented by other approaches and experiential resources. In The Imperative of Integration, Anderson reaches her conclusions based on empirical academic research, including social science findings in economics, sociology, and psychology. These findings are important since they seek causal regularities behind the problems, but they need to be complemented with other ways of capturing the complexity and uniqueness of the concrete problems of injustice. For instance, Anderson’s diagnosis would have benefited from more concrete interactions with the marginalized of whom she wrote, just as a doctor can enhance her diagnosis via interaction with her patient. Jane Addams used this method of first- order empiricism to inform her work (1902). She thought that one must interact and converse with others to understand, as closely as possible, their experiences of social inequality, discrimination, and oppression. Addams did not confine herself to academia; she put herself into the world. Importantly, experience was her data— interactions unmitigated by statistical compilations, theoretical interpretations, and the like. Sometimes a doctor needs to engage, be participant, and take a sympathetic interest in the condition of the patient to gather new evidence. To understand persons, communities, and even social structures requires that we experience them as historically evolving in a particular context. I am not claiming that Anderson’s conclusions are invalidated by her distance from the raw data of experience, or her lack of interaction with the experiences of those who directly suffer injustice; they may be perfectly sound. The point I want to make is a more general one about how pragmatists should try to approach problems of injustice. Both empirical research and first- order experiences can be utilized together in an effort to identify the problems that persist in society and to develop solutions to these problems. The idea of enmeshing oneself in the circumstances of others, and thereby gaining a broad and rich perspective, received uptake in sociology (e.g., Robert Park) under the influence of John Dewey and George Herbert Mead in Chicago in the first part of the twentieth century. This is what today is known as the qualitative and ethnographic approach to sociology. However, it would be a mistake to identify the pragmatist approach as one that negates the importance of other techniques such as the ones stressed in quantitative research; they too have their proper place and function. Recently, there has been a new generation of sociologists that has rectified this narrow conception of the pragmatist approach. In fact, pragmatism is now considered the philosophical basis of mixed- methods research (MMR).2 However, in regard to methodologies and experiential resources, pragmatism has an even more inclusive view than does MMR. Quantitative and qualitative methods are sociological and as such are only interested in the sort of data that interest sociology: facts about human beings as social animals or members of groups. Therefore, in the study of concrete injustices, they will be selective in ways different than other sciences like psychology. There are as many different ways to capture and understand experiences of injustice as there are types of inquiry. This pluralism is a strength of pragmatism, one that sets an inclusive framework that supports interdisciplinary and cooperative research about problems of injustices. What the philosopher provides is the critical perspective needed to help inquirers from different disciplines avoid reductionism and other common mistakes by reminding them of their particular biases. However, the pragmatist approach is even more radically open with regard to the evidence it can draw on in its designation and diagnosis of problems of injustice. It isn’t restricted to the evidence of any particular academic discipline; neither is it restricted to the evidence that is gathered and validated via the academic disciplines, full stop. Among the experiential resources that pragmatism can draw on are also autobiographical texts, narratives, and stories that the Eurocentric paradigm of knowledge and science often discard as irrelevant, as fiction, or art. For example, Gloria Anzaldúa’s Borderlands / La Frontera (1987) is a first- person autobiographical account of multiple forms of oppression suffered by Mexican Americans growing up in the border. Without the stories of different oppressed groups, academics would lack the resources needed to begin to understand the complex experiences of oppression as they are lived and the structural constraints as they are experienced in everyday lives. By explicitly holding a broader sense of the “empirical,” Anderson’s view could have avoided some of the objections that have been raised since the publication of her book. More than one commentator has raised questions about whether a privileged, white scholar like Anderson is too removed or out of touch with the Black community’s experience to be able to offer a reliable inquiry about their experiences of injustice. Paul Taylor, for example, writes, “Anderson endorses the Deweyan thought that social and political philosophy needs to be grounded in an empirically adequate understanding of the problems we face. But Dewey never tired of explaining that empirical adequacy had to do with experience in all of its existential and phenomenological depth” (2013, 201). And V. Denise James has argued, “my deepest concern [about Anderson] is rooted in another of classical Deweyan pragmatism’s central claims that our work should attend to and get not only data from, but also be interpreted through, lived experience” (2013, 1). These are concerns about Anderson’s experiential basis for the knowledge that she has produced. To be sure, the view that just because an inquirer is a member of a privileged group (e.g., a white intellectual) she could not possibly produce reliable knowledge about the injustices suffered by the oppressed is an extreme and implausible view. But one could, and sometimes should, raise the question of whether an investigator’s position in her society may have in some way limited the experiential resources of her inquiry into an injustice. In the case of someone like Anderson, one can ask, beyond relying on the best social sciences, whether she considered other experiencebased resources that may have had an impact on the scientific research. One could ask, of course, the same questions about Black scholars who for some other reason, such as being academic intellectuals, may be too far removed from the same experiential resources. In the case of Anderson, what became a red flag for her critics was the simple fact that she did not realize that the term “integration” has many negative connotations in Blacks’ lived experience.3 Anderson’s personal distance from the problem of injustice in the lives of Blacks may not invalidate her conclusions, but it raises the question of whether she missed experiential data obtainable via other means, such as a cross- racial dialogue about the very causes of the problem. There is in Anderson’s work an oversight; that is, she does not acknowledge other sources for inquiry. She may reply that the only sources of knowledge she needs are the causal mechanisms reproducing undemocratic and unjust race relations as they have been revealed by studies in the social sciences. But even these studies are limited if they are too far removed from and not sensitive enough to the particular experiences, daily struggles, and circumstances of particular communities and situations in the United States. Pragmatism’s Methodological Warnings to Contemporary Nonideal “Empirical” Approaches The pragmatist approach to problems of injustice can be distinguished by its starting point and its broad view of empirical inquiry. There is in this view a demanding commitment to be sensitive to the uniqueness and complexity of the problematic contexts that trigger inquiry. However, does pragmatism provide more specific lessons or directives that can be useful for today’s nonideal theorists in their efforts to provide a better alternative to traditional ideal theories in addressing problems of injustice? First, pragmatism issues the warning to contemporary nonideal theories not to take for granted that their approach is “empirical” simply because they are critical of ideal theories or because they have the intention to be empirical. Theories and categories, no matter how empirically grounded they may seem by virtue of the fact that they are grounded in history or science, can function as “blinders” in our efforts to capture and resolve concrete injustices. Second, while Dewey provided no infallible method by which one can guarantee success in the empirical method he proposes, he would suggest that nonideal theorists learn from other philosophers’ mistakes. In this respect, Dewey’s occasional efforts to summarize the general and systematic kinds of mistakes nonempirical philosophers tend to make can prove helpful. Specifically, he identifies a series of methodological fallacies that nonideal theorists would do well to avoid. Dewey formulated different ways in which philosophers have made the same basic mistake, which is the tendency to begin with reflective products or theoretical abstractions, as if there is no prior nontheoretical problematic context. Hence, Dewey concludes that “the most pervasive fallacy of philosophic thinking goes back to neglect of context” (LW 6:5). I will sort out how the different versions of this fallacy have made their way into sociopolitical philosophy, in particular, in philosophical inquiry about injustice. While these fallacies are more common or even to be expected from ideal theories, it is worth demonstrating that nonideal ones are not immune from them either. The Fallacy of Unlimited Universalization When philosophers ignore the fact that judgments arise out of limiting conditions set by the contextual situation of particular inquiries, they tend to elevate the conclusions of their inquiries to the point of giving them unlimited application. Philosophers are prone to this fallacy because they are the ones who are usually trying to formulate theories about truth, good, justice, or the absolute, writ large. In many instances of this fallacy, “It is easy and too usual to convert abstraction from specific context into abstraction from all context whatsoever” (LW 6:16). Dewey was aware of how abstract conceptions such as justice, freedom, and democracy have been used by intellectuals and politicians to ignore or divert attention from the concrete social problems in need of our intelligence. However, he was also aware of how the categories of nonideal theories, while seemly empirical, may have the same effect. In fact, one could argue that these categories are more pernicious since they foster the illusion of empirical grounding in solving problems. Rationalist philosophers are not the only ones liable to forget the instrumental and context- bound character of their abstract conceptions. Political philosophy inspired by sociology often focuses on broad universal-general abstractions (categories) such as the state, individuals, groups, society, capitalism, racism, [and] white supremacy, oppression, structural racism, and the people, even though in the end there are only particular and unique instances of all of these categories in a situation at a particular time and place. To be sure, abstractions, generalities, and universal concepts have a legitimate function in inquiry. They are “tools” to be employed and tested in clarifying concrete social problems. The danger is when intellectuals (especially philosophers) tend to forget both the proper function of these tools and the details of concrete particular contexts. When this happens, they impose their theoretical abstractions upon particulars and oversimplify their empirical complexity.

But the concrete troubles or evils that provoke our philosophical inquiries are situation specific and often far more complex than our intellectual analysis may suggest. The failure to recognize this specificity and complexity is an oversight with serious consequences, especially reductionistic, oversimplified, and one- sided solutions to serious social problems. This oversight also tends to generate among academics theoretical problems that are based on false oppositions among their abstract conceptions, which are barriers to continuing inquiry. In this regard, Dewey mentions debates about individualism and collectivism, but today, examples include debates about whether race, class, or gender is the key cause of an injustice. Anderson seems to be aware of the same danger with abstract conceptions when she replies to the charge that she disregards capitalism and white hegemony in her analysis of racial injustice in the United States. She replies that these concepts are “too lumpy to do the practical work non- ideal theory needs” (Anderson 2013, 4). She would not mind “white hegemony” if all it means is “the entire interlocking and mutually reinforcing set of mechanisms that reproduce systematic black oppression today” (2010, 16). But the concept is one that covers in broad strokes a lot of history across time and place when nonideal theory should be more meticulous and focused on more specific problems of the here and now. She claims that nonideal theory “demands splitting, not lumping” and should be committed to being “meticulous and precise in differentiating the variety and interaction of discrete causal mechanisms underlying the problem at hand” (2013, 4). This resonates with Dewey’s metaphilosophical standpoint, but given Dewey’s starting point (his radical particularism and contextualism), he would wonder if Anderson’s view is immune to the same danger of “lumpiness” that worries her about others’ analysis of racial injustice. Anderson argues in The Imperative of Integration that, even though the United States may have legally abolished segregation, de facto segregation is worse; it is the cause of racial injustice. Her solution is that we must integrate in all areas of social life. From Dewey’s perspective, Anderson should recognize that her use of “segregation” and “integration” may be as susceptible to the same dangers as “white supremacy” or “capitalism”; they are all abstract concepts that, while useful, may sometimes cover over or lump together too much. Even if one can theoretically discriminate the same general structural cause across cases of racial injustice, there is no single cause called “segregation.” Segregation is experienced differently in a variety of complex and unique injustice events. Without this qualification, one runs the risk of lumping all cases together under one name and even disregarding other causes that may be operative in an inextricable way in a problematic situation. Even the specific mechanism of segregation that Anderson identifies varies depending on what other contextual conditions are present in different areas of the United States. In inquiry, simplicity or lumping in the diagnosis by means of an abstract concept usually results in an answer or solution that has the same, simplistic character. In Anderson’s case, the solution is integration. To be fair, Anderson does provide plenty of differentiation in the variety of multiple strategies needed to undertake the problem. But nonideal theorists must be careful not to forget that behind a single conceptual handle there is a plurality of means depending on the particular problem. The temptation to seek and want a single cure under a single name has to be one of the most common temptations in any inquiry about injustice, and nonideal theorists are not immune from this. The Analytic and Selective Fallacies When inquirers forget their intellectual dissections, they commit the analytic fallacy. When they forget that evidence of their intellectual dissections indicates that they have been selective from the original subject matter, it is called the fallacy of selective interest. The analytic and selective fallacies are for Dewey two facets of the same general tendency to neglect context, and they are counterproductive in ameliorating concrete problems. Let us consider how they can undermine inquiries about injustice. Anderson claims that “Non- ideal theory demands splitting, not lumping” (2013, 4). She is, of course, correct. However, the analytic fallacy represents a way of splitting that is undesirable from a pragmatist point of view. Analysis is that process where we discriminate some particulars or elements within a context. Of course, what hangs those particulars together, i.e., what gives them their connection and continuity, is the context itself. Philosophers commit the analytic fallacy when “the distinctions or elements that are discriminated are treated as if they were final and selfsufficient” (LW 6:7). Philosophers, as a result of their analyses (e.g., as a result of adopting historical accounts and scientific studies), have provided a diagnosis of a particular injustice. For instance, Anderson has shown that inquiry can result in a meticulous and precise differentiation of “the variety and interaction of discrete causal mechanisms underlying the problem” of racial injustice (2013, 4). This is as it should be. However, the danger comes when inquirers neglect or forget the concrete, integral contexts from which things were dissected in the first place. They may then invent artificial, intellectual problems that center on how the variety of causal mechanisms discriminated (analyzed) can be brought together or unified, or, what is more likely, engage in endless debates about which among the plurality of diagnoses is the correct or “real” one. However, these causal mechanisms (after inquiry has formulated them) are not antecedent to the concrete problem, nor can the problem be reduced to their intellectual analysis. Nonideal theorists must also guard against committing the related fallacy of selectivity. Different types of inquiry will discriminate different causal mechanisms underlying the same problem because each is selective in some way. Pluralism of diagnoses about the same problem of injustice is not problematic unless, by failing to recognize selectivity (i.e., ignoring context), we postulate some ontologically or epistemologically privileged access or approximation to some antecedent “reality” of the problem. When we forget or overlook the unavoidable selectivity of even our best theoretical tools, we run the risk of becoming complacent in the belief that our accounts exhaust all of the causes in the case, or we may proclaim it as the “real” cause and anything else as illusory. Anderson is correct in that ideal theories tend to overlook or ignore concrete injustices like racism. This is a function of their starting point, which is unreasonably, and some may argue, suspiciously, selective. But even the best nonideal “empirical” views will be selective as well, for, as Dewey says, “there is selectivity (and rejection) found in every operation of thought” (LW 6:14). Pragmatism, however, does not think that admitting or embracing selectivity means that all selectivity is equally good or equally distortive (i.e., biased or partial) with respect to an antecedent reality. Standpoints and perspectives are not things that stand against a uniform and antecedent reality of a problem of injustice. While selectivity is unavoidable, there are usually contextual grounds, depending on the nature of the problem, for distinguishing better from worse selections in a situation without the need to presuppose an Archimedean standpoint or privileged epistemic access by some group or person. For pragmatism, all selectivity or bias in inquiry has both a positive and a negative aspect. The positive is that it makes available for inquirers aspects of a concrete problem that someone without that particular bias would not have experienced or appreciated. The negative is that no matter how productive our bias is, one may have left out something from the concrete problem that has not been disclosed by our tools of analysis. In other words, the particular forms of selectivity that we bring to an inquiry account both for our limitations and for our particular power- capacity to inquire and ameliorate the problem. The particular selectivity that we bring to an inquiry into a problem of injustice can have different sources. We would do well to distinguish two broad categories of selectivity or bias: theoretical ones (of the type of inquiry) and pretheoretical (of the investigator).

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## Case

#### Renewables are the safest, most affordable, and accessible option – we’re out of time to delay action and inaction results in worse methods like fracking being used.

Christopher M. **Matthews**, 11-19-20**19**, "What Would Happen if the U.S. Banned Fracking?," WSJ, https://www.wsj.com/articles/what-would-happen-if-the-u-s-banned-fracking-11574208146

Democratic presidential-campaign proposal to ban fracking to extract fossil fuels has oil-and-gas companies worried and environmental groups hopeful. Candidates including Sens. Elizabeth Warren and Bernie Sanders have signaled their willingness to bar the practice—which involves pumping a mixture of water, sand and chemicals into subterranean rock formations such as shale to release reserves of oil and gas. Other Democratic hopefuls have stopped short of supporting a ban but endorse policies that would curb U.S. oil production. The U.S. shale-oil revolution has pushed the country to become the largest oil producer in the world. The oil industry now pumps about 12 million barrels a day overall, and shale-oil companies account for about 8 million barrels of that total—roughly 8% to 10% of the global supply of oil. The Wall Street Journal hosted a conversation by email about these issues with Kassie Siegel, director of the Climate Law Institute at the nonprofit Center for Biological Diversity, and Sam Ori, executive director of the Energy Policy Institute at the University of Chicago. An edited transcript follows. WSJ: What would happen if the next U.S. president significantly restricted fracking? MS. SIEGEL: Banning fracking is one of the most important steps the next president can take to protect our country. The scientific reality is that fracking is enabling the extraction of oil and gas that we cannot afford to burn. A landmark report from the world’s leading scientists on the difference between limiting temperature rise to 1.5 degrees Celsius and allowing even small additional warming shows the gut-wrenching choices we face. Failure to implement a rational climate policy means we are in for ever-greater climate-fueled superstorms, heat waves and fires like those in California, sea-level rise that inundates some of the world’s largest cities and mass species extinction. The damages will be so profound it is difficult to wrap our minds around them. Banning fracking is a key step to protect against the economic losses from climate disruption. We are facing massive economic losses due to climate disruption, driven by fossil-fuel extraction and use. The Stern Review on the Economics of Climate Change pegged those climate damages at 20% of global GDP. That’s a global estimate, but local communities are suffering the harms right now—when homes are destroyed by climate change-fueled superstorms or fires like those in California, when crops fail due to drought and heat waves, and for so many other reasons. Banning fracking would help to diversify fossil fuel-dependent communities and improve the health and well-being of their residents. Fracking is an ultrahazardous extraction method that poisons the air we breathe and the water we drink and makes people terribly sick. Fracking should be banned due to its direct health harms alone. MR. ORI: It’s worth starting with some context just to have a sense of the stakes here. I think many Americans would be surprised to learn just how important oil from hydraulically fractured wells has become for the U.S. and global economies. Oil from fracked U.S. wells now accounts for about 8% of total global oil supplies. That is massive. So, the first question is, what would be the implications of a ban—both in the near term and the long term. To get at the near-term question, I asked a few of our research assistants to run a little model on the impacts of halting all new drilling in the major U.S. shale plays. Remember that shale wells have very steep decline rates. On average, these plays decline by a couple percent per month. One year after the implementation of a ban, shale-oil production would be down by more than a third. After two years, production would be down 55%. You’re talking about triple-digit oil prices and a possible global economic shock. MS. SIEGEL: I think an oil-price prediction is largely a red herring, because I am not talking about banning fracking in a vacuum. My organization and others propose a fracking ban along with other smartly designed programs to speed the development and deployment of clean technologies, support local communities, and offset oil and gas price increases. Government policies that drive a rapid just transition to clean-energy technology can create the largest economic stimulus since World War II. I’m talking about policies like accelerated clean car and truck standards that rapidly decrease oil consumption in the transport sector and moving the power sector to 100% renewable energy. Other policies like reinstating the crude-oil export ban would also counteract price increases from banning fracking and restricting the supply of oil and gas. Well-designed government policy in other areas, like tobacco and asbestos, addresses both supply and demand. Climate policy must do the same. The barrier to this is opposition from the fossil-fuel industry, not any insurmountable economic or policy problem. And don’t you think we need to be a little bit skeptical of anyone’s ability to accurately predict oil prices? MR: ORI: The time scale for turning over the global automotive fleet is going to be measured in decades, whereas the production drop from a fracking ban would happen almost immediately. It is a hard truth that I think advocates of a ban have to own up to. WSJ: There seems to be some legal and regulatory ambiguity as to what a fracking ban would actually look like. If the next U.S. president does decide to curtail fracking and fossil-fuel extraction, what’s possible? MS. SIEGEL: The next president can and should quickly ban fracking on all federal lands and waters without any help from Congress. Over the last decade, about a quarter of U.S. fossil-fuel emissions have come from the leasing of federally owned mineral rights. Banning fracking on nonfederal lands is legally a bit more complicated, because Congress exempted fracking from the federal Safe Drinking Water Act in 2005. But there are many other environmental laws, like the Clean Air Act, under which the EPA can set strict limits on air pollutants like methane and volatile organic compounds. Strict limits would require operators to shift to cleaner production methods or to greatly reduce air pollution from fracking. Existing laws also provide executive authority to stop federal leasing on public lands and oceans. Over the years, hundreds of organizations have petitioned the federal government to end new onshore and offshore federal fossil-fuel leasing. The next president should take all of these steps and work with Congress to permanently ban fracking everywhere. WSJ: What do you see as the trade-offs between immediate economic repercussions from a ban versus the prospects for a transition to less-carbon-intensive energy sources? MS. SIEGEL: Any immediate economic repercussions to the economy can be offset if oil-and-gas companies are made to pay their fair share and if we overcome political opposition from the fossil-fuel lobby and implement well-designed policies. The fossil-fuel industry reaps huge benefits from direct taxpayer subsidies, estimated at roughly $20 billion per year. All of that support should be reallocated to a just transition to clean energy. Fossil-fuel companies have been deceiving the public and shareholders for generations about the true costs and consequences of climate change. These polluters have never paid for the health, climate and economic damage they cause. The prospects for a transition to a clean-energy economy are bright. Clean renewable energy solutions are available, and they are becoming more affordable all the time. It is now cheaper to install new wind power than to run existing gas plants. Recent analysis indicates that due to a rapid decline in the cost of renewables, the cost of clean-energy generation is likely to be lower than the cost of new gas plants for 90% of the proposed construction in the U.S. Clean-energy jobs provide stable, long-term careers. Workers put down roots, raise families, pay taxes and are invested in the future of their communities. There are examples across the country of former coal towns that have transitioned to clean, sustainable economies, from a sprawling solar-panel development company in West Virginia to the organic-agriculture hub of Colorado’s North Fork Valley. MR. ORI: In the near term, there would no doubt be significant pain. First, U.S. consumers would likely see sharp increases in their energy bills. Remember also that the fracking boom has provided significant benefits to the communities where drilling takes place. One recent study by my colleague Michael Greenstone found that the average household in U.S. shale plays benefits by as much as $1,900 per year, taking into account both the costs and benefits of fracking. But I also think it is important to look globally. The U.S. also produces massive amounts of natural gas from fracking, which we are now beginning to export in ever-larger quantities. So, A large drop in U.S. shale-gas production would also affect natural-gas markets around the world, likely increasing prices for global consumers. Everyone acknowledges that, in order to reduce carbon emissions at the magnitude required to avert devastating climate change, China, India and other developing countries will need to make huge investments in clean energy. But I think it will be much harder for them to do that in a near-term environment of deep economic uncertainty and possibly even turbulence that could arise out of a strict fracking ban. Those countries need cheap energy for growth. MS. SIEGEL: We transformed our economy far faster during World War II than you propose, and we put a man on the moon in 1969. Electrifying the [vehicle] fleet, building zero-emissions public transportation and other solutions are here today. With sufficient political will, our country will get it done. People are being harmed, brutally, by climate disruption today. We are out of time to delay action. The world’s 47 least-developed countries have specifically asked for developed countries to commit to phasing out all fossil-fuel production in order to keep warming below 1.5 degrees. I think it is wrong for you to assert that these countries need more fossil fuels. And again, renewables are already largely cheaper than fossil fuels, even when you ignore the climate, health and environmental damages that the public bears. Renewable-energy prices are dropping all the time. MR. ORI: The economic transition in WWII and the moon landing are bad analogies for lots of reasons, but mainly because both were accomplished through government fiat with unlimited budgets. You cannot force a couple hundred million drivers to change cars overnight. It’s just not realistic. WSJ: It seems like you both agree there would be an economic impact on areas and communities where there is oil and natural-gas production and the jobs that stem from it. How significant would that impact be on large producing states? And what can or should be done to mitigate any lost economic activity? MR. ORI: Those benefits include overall increases in income, employment and even government revenue. We are talking about tens of thousands of jobs, and the industry has brought significant benefits to the communities where drilling is taking place. And the U.S. record with retraining workers in similar industries is not encouraging—think of the record with coal communities. As much as we promise job training and other assistance, policy has historically failed. In light of these and other costs, the question then becomes, are there long-term climate benefits from a fracking ban that could outweigh the near-term costs? I should say that I am more firmly coming around to the view that fracking is a net negative for carbon emissions. I think there is really no question when it comes to oil. Fracking has unlocked so much cheap oil that it has badly delayed a much-needed transition to cleaner transportation, globally. That is a serious problem for the climate. But I am also becoming persuaded that the common rejoinder that natural gas from fracking has been good for carbon emissions by displacing coal is too one-dimensional. A paper from my colleague Ryan Kellogg suggests that while natural gas from fracking has had some real benefits for the U.S. economy, especially for consumers, it could very plausibly lead to increased carbon emissions. That is because there is so much potential demand for cheap gas in the U.S. economy that it could overwhelm the benefits from coal displacement. It is not that I am unconcerned with the impacts of fracking on the climate. It is just that I think a ban will do much more harm than good. Why not pursue a policy that incentivizes a transition from fossil fuels more broadly in ways that are more predictable for the economy? MS. SIEGEL: Government should absolutely provide support to states, communities and workers that are impacted by this boom-and-bust industry and by the necessary transition. But shouldn’t we be asking the fracking industry what is its plan to support workers and economies? Coal is a cautionary tale. None of the fossil-fuel industry’s professed concern for its workers’ well-being has ever translated into actual financial commitments. We can keep what happened to coal miners from happening to people who work in the fracking industry if we muster the political will to make the necessary policy changes, force these corporations to meet their obligations and invest in a just transition to clean energy. Samuel, you ask “Why not pursue a policy that incentivizes a transition from fossil fuels more broadly in ways that are more predictable for the economy?” I am eager to hear the specifics of your proposal. But we cannot delay any longer. Industry has delayed action for decades in part through clever-sounding arguments against whatever policy is on the table. Don’t fall into that trap. MR. ORI: It is true that the costs of climate impacts are rising. We do need to act. The question is whether a fracking ban is an effective policy choice for which the benefits will outweigh the costs. I am extremely doubtful of that. It would impose large and sudden costs on the global economy that could perversely slow down the very investments we need in clean energy. It would hurt U.S. consumers overall and especially households in states where the industry is large. And what would we get in return? The oil market would eventually rebalance. Large producers like Saudi Arabia and Russia would step in to replace lost U.S. supplies. The net impact on global carbon emissions would be negligible. They might even rise in the short term, because production in those countries is much dirtier than in the U.S. Global prices would be somewhat higher—suggesting there might be a good price signal to consumers to invest in more-efficient vehicles—but would also be quite a bit more volatile, which could undermine that benefit. Over the short to medium term, higher global natural-gas prices could lead to a brief rebound for coal, especially in Asia. This is bad news if you live in India or China, where air pollution is already taking years off your life, and where cheap natural gas could produce major benefits for air quality. However, higher long-term gas prices are likely a good thing for renewables and nuclear. Still, I come back to the question of why this disruptive approach should win out over something more predictable, like a carbon tax. We need a price on carbon, which would affect all fossil fuels. We should target the thing we care about, carbon emissions, not the means of production. It is of course fair to point out that a national price would require legislation. But I am increasingly optimistic that, with the right leadership, something is possible. And polling suggests this is something Americans overwhelmingly support. By the way, even without a national price implemented by law, there are other ways to make sure that fossil-fuel producers face the social costs of their operations. For example, leases to produce fossil fuels on federal and state lands should incorporate the expected climate damages of production into the lease price. MS. SIEGEL: Banning fracking is an essential policy step for all the reasons we’ve discussed, and many others that we didn’t have time to delve into, like the crushing blows to home values that can happen when the fracking rigs move in next door. We also didn’t get to talk about the many important things that cannot be quantified, like the pain of watching your loved one suffer or the extinction trajectory for thousands of species from the polar bear to the sage grouse. Nobody is talking about ending all oil and gas extraction immediately. There needs to be a just transition over several decades, as we also slash our consumption of oil and gas. But banning fracking is an essential step. We do not need to choose between a carbon tax and a fracking ban. Society does not solve enormous, complex problems with one silver-bullet policy solution. We urgently need a suite of well-designed climate policies. A well-designed carbon tax could be part of that, but not if it comes at the cost of gutting existing environmental laws or granting legal immunity to fossil-fuel polluters, as proposed by some of the world’s largest polluters themselves. The scientific reality is that if we are to limit warming to 1.5 degrees, then we simply cannot dig up and combust an amount of fossil fuels greater than the greenhouse-pollution budget allows. Unfortunately it is also a fact that there’s far more than enough fossil fuels in already developed oil, gas fields and coal mines—places where the infrastructure is built and the capital is sunk—to blow past 1.5 degrees if it is all extracted and burned. MR. ORI: Just two final thoughts. First, I would just note that the best research to date finds that housing prices actually increase due to fracking, to the tune of roughly 6%. However, you are right that research has also found fracking had health impacts on newborns in Pennsylvania, especially within a kilometer of a well. This suggests to me that there is good reason to pursue better zoning and setback rules. Second, I just think it is important to be clear and transparent about impacts. I don’t think one can say we want to have a fracking ban, but also want a managed transition. Implementing a comprehensive, binding fracking ban would be disruptive and lead to sharp production declines. That is just the reality of shale production. If the goal is something more predictable—that is, managed—then policies like a carbon tax would be much more effective.

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#### Scenario planning---even if it incorporates future orientations---is key to ensuring actions have ethical consequences.

Samuel **Bagg 16**, Department of Political Science, Duke University, “Between Critical and Normative Theory: Predictive Political Theory as a Deweyan Realism,” Political Research Quarterly June 2016 vol. 69 no. 2 233-244

We could admit, first of all, that resolving disagreement about predicted consequences is useful, and nonetheless maintain that this is simply not the domain of political theory and philosophy. Those who are understandably weary of efforts to scientize the humanities might object that this sort of “pragmatism,” though perhaps on the wane in Philosophy departments in the mid-20th century, began to dominate Political Science with the “behavioral revolution,” and that “predictive” political theory is simply another name for social science as it developed after Dewey’s death. This objection, however nobly motivated, is misplaced: in short, it is exactly because we are not scientists in any strict sense that making these kinds of predictions is our job. The world is not so courteous as to present us only with a limited number of well-defined variables with limited interactions, as we noted above, nor unlimited time to experiment with different forms of social life. In order to aid **important political judgments**, we need to **envision the consequences** of **large-scale changes** to **material circumstances**, **social norms**, **political institutions**, and **cultural narratives**; tasks ill suited, in other words, to the precise tools of science. The role of political theorists, on this conception, is **not** to do **primary research** on the effects of particular empirical interventions, but to **synthesize the best work** from a number of diverse fields, including but not limited to the social sciences, making **larger-scale predictions** about the **consequences** of actions and interventions that **cannot be tested scientifically**. To call this inherently more speculative practice “prediction,” of course, is to stretch the normal scientific meaning of the word, as Dewey acknowledged. It is worth adopting his somewhat provocative usage, however, in order to emphasize the continuity between these practices, which is too often ignored by those on both sides of the ill-conceived descriptive-prescriptive divide. Using a common language of prediction highlights the ways in which these modes of inquiry ought to discipline and learn from one another. In response, then, it might be argued that social scientists, who can evaluate the relevant empirical studies with greater precision and reliability, are still better positioned than political theorists to “discipline” the more expansive and imaginative form of prediction envisioned by Dewey.9 By contrast, it could be added, the sorts of expertise developed by political theorists are not particularly relevant to the needs of large-scale prediction. The objection is instructive, and several answers to it are necessary. First, we must admit that it contains some truth. At present, many political theorists lack the tools necessary to properly interpret and synthesize the relevant findings of other fields. Thus, adopting a Deweyan method of inquiry is not entirely inert: at least some of us should change what we are doing and learn the tools we need to best undertake this kind of large-scale, synthetic prediction. Nevertheless, there are good reasons to think that political theorists are the right disciplinary community for the job. Consider first our somewhat idiosyncratic devotion to the study of canonical figures in the history of political thought, many of whom – from Aristotle to Hobbes, Rousseau, Marx, and of course Dewey himself – were not only or even primarily political philosophers. As thinkers of a realist bent are fond of reminding us, political theorists have always drawn from and even contributed to the study of history, psychology, economics, and whatever else was available to them, often because they have hoped to make exactly the sort of large-scale predictions Dewey recommends. In advocating an approach to political philosophy grounded in “social theories of power” rather than first principles, for example, Jacob Levy (2015) observes in a realist spirit that if such a social-theoretic approach is “sometimes absent from contemporary normative theory… that is one reason for looking to the history of political thought, where a greater methodological richness can be found” (4). Political theorists’ training in the history of political thought therefore has two important implications: first, that we are already accustomed to grappling with this kind of imaginative prediction; and second, that adopting a similarly “interdisciplinary” approach in our own constructive work does not change the fundamental character of the discipline. Of course, one might think that with the increasing sophistication in our methods of knowledge production since the age of Aristotle or even of Dewey, there is a good reason we now typically sort ourselves into disciplines. In a sense, this is undeniably true: one cannot hope to be at the forefront of so many fields at once, in the way that some of these classical figures could. Even now, however, it is not impossible to ground one’s theoretical perspective in a broad, interdisciplinary understanding of human beings and human societies. Indeed, we might say something even stronger: to be at the forefront of political theory often requires some sort of interdisciplinary synthesis.10 Consider the work, for example, of thinkers as diverse as Elizabeth Anderson, Anthony Appiah, William Connolly, Jon Elster, Sharon Krause, Helene Landemore, Martha Nussbaum, James Scott, Ian Shapiro, and Cass Sunstein, each of whom treats traditional texts alongside work in the social and cognitive sciences. Of course, it is not just quantitative and explicitly experimental knowledge that deserves inclusion – the humanities and interpretive social sciences are also essential to the integrative understanding envisioned here. Since political theorists are more accustomed to using such resources, it does not merit as much attention here, but it does count as yet another reason that it is political theorists and not social scientists trained explicitly in quantitative methods who are the most natural fit for the sort of prediction I have in mind, which is not simply a kind of statistical meta-analysis. Perhaps most importantly, in fact, the very critical and normative methods which a predictive approach seeks to transcend are nonetheless crucial background for its pursuit. Though critical theorists are led astray when they refuse to make any consciously constructive contributions to democratic judgment, for example, Foucault and others are right to challenge the normalizing effects of academic discourses, and the authority with which we presume to perpetuate them. Thus, it is only with an acute sensitivity to these dangers that we ought to proceed in predictive inquiry. Similarly, though analytic normative theorists have a problematic tendency to proliferate abstract discussion of principles at the expense of concrete inquiry into the particular situations of judgment we face, these principles often serve as excellent heuristics, pointing our attention in particularly fruitful directions when examining those concrete circumstances. It is at least partly through engagement with critical and normative theory, in other words, that we become attuned to a genuine diversity of perspectives, the moral patterns which permeate social life, and the relentlessly subtle ways in which power structures our experience. This traditional sort of “expertise” is as relevant as ever to political theory in a broadly predictive mode. Despite its scientific inspiration and the language of hypothesis testing, therefore, we should not mistake Dewey’s project for a naïve scientism; an attempt to make political theory more “objective” or “rational.” As we saw above, his reading of Darwin leads him to question the possibility of a singular rationality. In his interpretations of Dewey, Richard Rorty (1982; 1989) has emphasized the role of narrative and artistic imagining, which for Dewey is indeed a necessary part of the process of social intelligence: “The first intimations of wide and large redirections of desire and purpose are of necessity imaginative. Art is a mode of prediction not found in charts and statistics, and it insinuates possibilities of human relations not to be found in rule and precept, admonition and administration” (LW 10, 352, emphasis added). Rorty imagines that this justifies a surrender of philosophy to poetry – that is, a surrender of logic to narrative (1989, 26). Dewey recognized, however, that we can also go beyond these first intimations about new forms of life, projecting our more systematic social and historical inquiry into the future. For Dewey, art and statistics are both moments of a continuous practice of predictive inquiry, each with irreplaceable contributions to make. What a Deweyan perspective recommends, specifically, is leveraging an integrated, interdisciplinary understanding of human societies to think through the predicted effects of potential “interventions” on larger scales than is possible to predict scientifically. We might do our best, for example, to imagine all of the various consequences of large-scale racial integration, as Elizabeth Anderson (2010) does in The Imperative of Integration. Anderson, a pragmatist explicitly inspired by Dewey, adopts of a wide array of disciplinary lenses to make a synthetic argument that is irreducible to any of them, demonstrating predictive political theory at its best. Others have applied similar methods in evaluating competing regimes for maintaining civic “virtue” (McTernan 2014), achieving deliberative conversions (Bagg 2015), enabling secondorder social reflexivity (Aligica 2014; Bell 2015; Knight and Johnson 2011), and weakening the effect of money in politics (Lessig 2011). We can imagine similarly **wide-ranging predictive approaches** to proposed interventions like instituting **reparations for slavery**, changing our understandings of marriage, **abolishing prisons**, enforcing strict norms of **gender equality**, **opening borders**, undermining norms of individual responsibility, or imposing **global redistributive taxes** on capital. These proposals vary in feasibility, for judgments about which long-term ideals to promote in the broader public sphere are just as **real**, **situated**, and **pressing**, as judgments about **which policies** to support in the **short term**. In fact, since legal theorists and scholars of public policy do occasionally engage in predictive inquiry regarding proposed adjustments to legal and institutional regimes, it is with regard to long-term ideals – and, crucially, all manner of extra-legal norms, discourses, and narratives – that political theorists may have the most to contribute. This brings us, then, to our second major objection: that however valuable it may be for political theorists to do, this task does not respond in any obvious way to realist demands. Again, we must admit from the start that there is some truth to this objection, especially if we assume that contemporary realism is closely tied to classical realists such as Thucydides, Machiavelli, and Hobbes. One familiar doctrine that might be associated with “realism,” for instance, is that because humans are inherently selfish, they could never attain the levels of social cooperation necessary for socialist, communist, or even liberal internationalist goals. Though this particular claim is not widely-held among contemporary realists, several do exhibit a fear of “utopian” speculation in general, recommending instead an emphasis on basic security from violence and cruelty.11 From this perspective, speculation about open borders and prison abolition must appear quite fantastical. To those who support such radical goals, meanwhile, “realism” might seem an odd label for Dewey’s progressive experimentalism. Nevertheless, we can defend a Deweyan predictive approach as a variety of realism in two ways: first, by distinguishing between “substantive” and “methodological” realism; and second, by emphasizing again the significance of extra-legal norms. It must be admitted that a certain element of the broader realist tradition is pessimistic about the possibilities of cooperation and skeptical of utopian speculation – an attitude we may call “substantive” realism. Nonetheless, this is only one part of realist tradition, and it is one that contemporary realists have de-emphasized. In his pivotal “manifesto” for the realist movement, for example, William Galston (2010) summarizes its four basic components: “the injunction to take politics seriously as a particular field of human endeavor; the proposition that civil order is the sine qua non for every other political good; the emphasis on the evaluation and comparison of institutions and regimetypes, not only principles; and the call for a more complex moral and political psychology” (408). Of these four, only the second – an emphasis on civil order – plausibly implies a pessimistic “substantive” account of human possibility, and even this allows for more ambitious political schemes once the demand for order has been satisfied. The other three components, by contrast, are conducive to a wide variety of social and political projects. Largely eschewing the **blanket pessimism** of their classical forebears, contemporary realists are more likely to endorse what might be called “methodological” realism – i.e., a commitment to political theory that is **comparative**, **contextual**, psychologically rich, **institutionally innovative**, and grounded in **specific situations** of **political judgment**. These commitments, then, are plainly aligned with the Deweyan approach elaborated here, which gives the lie to any necessary connection between a realist methodology and a pessimistic, conservative, or quietist conception of the substantive goals to which we may aspire. Pace those partisans of abstraction who cry “utopophobia” at any mention of particularity or constraint in political philosophy (Estlund 2014), we need not abandon methodological realism just because we reject the conservatism of certain classical realists. Indeed, we may **productively advocate** for **quite radical institutional proposals**, such as prison abolition or open borders – just so long as we do so responsibly, acknowledging the **work that must be done** to **render those proposals feasible**. As this caveat makes clear, a predictive approach does recommend a certain degree of caution. A Deweyan realist will maintain that such apparently infeasible ideals as prison abolition and open borders may be useful in certain situations of judgment, as when expressing long-term goals for society. However, she will also readily admit that they will not typically be called for in everyday political situations requiring collective action, which are **highly constrained** by the dispositions of others. In such circumstances, radical action can **easily** turn out to be **counterproductive**, and as noted above, the point is **definitively not** to engage in **reckless experimentation** for experimentation’s sake. Rather, it is the **express purpose** of predictive political theory to consider which experiments are **worth trying**, and **under what circumstances**; precisely to **avoid**, in other words, the sort of **rash**, **irresponsible “experiments”** that have brought us everything from **Stalin’s gulag** and **Mao’s famine** to **US misadventures** in **Latin America** and the **Middle East**. Far from tempering our enthusiasm for the predictive enterprise, such examples reinforce its **vital necessity**. Methodological realism can help us to distinguish when substantive realism is appropriate, and when it may be relaxed

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