DEBATE

CLIMATE CHANGE AND THE COURTS

In Climate Change and the Courts, Professors Jason S. Johnston and Heidi M. Hurd debate whether there should be a public nuisance tort for greenhouse gas (GHG) emissions in light of the Court's recent decision in American Electric Power (AEP) v. Connecticut. Professor Johnston argues that the Court has itself in a bind: relying on EPA v. Massachusetts, the Court found that the EPA's regulation of GHGs displaced common law tort actions. However, on Johnston's view, EPA v. Massachusetts should be overruled by statute, in which case a later challenge to AEP v. Connecticut might succeed. Johnston's concern is that neither the courts nor the EPA are in a proper position to regulate a harm that he considers distant and speculative, ultimately concluding that if there should be any regulation of GHGs at all, it should come from Congress. Such legislation, he argues, will be nuanced based on the needs of particular states.

In response, Professor Hurd suggests that Johnston incorrectly frames the question, which should be whether the petitioners "have violated the common law entitlement to be free from unreasonable injury," a question which can only be decided by courts. Hurd argues that the purpose of tort law is "corrective justice," and the focus should not be whether the injury caused by the GHG-emitting companies was de minimis or whether reducing emissions without an agreement from China will ultimately curb climate change, but whether the companies have caused harm to the respondents. If so, Hurd continues, the petitioners should be required to internalize the costs of these injuries, exactly what tort law is prepared to do.

OPENING STATEMENT

Public Nuisance Liability for Greenhouse Gas Emissions: A Cause of Action that Should Not Exist

Jason Scott Johnston[†]

The best one can say about the Supreme Court's recent decision in American Electric Power Co. (AEP) v. Connecticut, 131 S. Ct. 2527 (2011), is that it could have been worse. The Court could have allowed the case to proceed. Instead, it reasoned without dissent that since the Clean Air Act (CAA) covers greenhouse gas (GHG) emissions and authorizes the federal Environmental Protection Agency (EPA) to promulgate a comprehensive and enforceable set of GHG regulations, federal common law actions seeking abatement of carbon dioxide emissions from fossil fuel-fired power plants are displaced. Id. at 2532. As this displacement theory had been advanced by the Obama Administration itself, it was an easy way, even for the Court's global warming liberals, to terminate this federal interstate public nuisance lawsuit. Easy because, according to Justice Ginsburg's opinion for the Court, since Congress has already designated the EPA, an "expert agency," as the "primary regulator of greenhouse gas emissions," there is no need for the federal courts to assume the job of regulating GHG emissions, as they would necessarily be called upon to do if they determined that GHG emissions constituted an interstate public nuisance. Id. at 2539. Instead, the EPA moves first, employing its superior expertise in promulgating regulations that limit GHG emissions, with the federal courts then playing only their traditional role in reviewing the agency's GHG regulations under the "arbitrary and capricious" standard. Id. at 2540. As Justice Ginsburg explains, this more limited judicial role is justified both by the superior "scientific, economic, and technological resources" possessed by the EPA and by Congress's decision in the CAA to entrust the EPA with the job of balancing the "competing interests" of environmental benefits and the "economic disruption" from GHG emission regulation. Id. at 2539-40.

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The idea that Congress gave the EPA the job of regulating GHG emissions under the CAA-the Court's holding in Massachusetts v. EPA, 549 U.S. 497 (2007)—is absurd. Just how absurd will become apparent as the federal courts, and likely the Supreme Court, deal with legal challenges to the EPA's GHG regulation under the CAA. In such challenges, the courts will hear how in finding that GHG emissions reasonably may be expected to "endanger" human health, the EPA relied almost entirely upon the conclusions of an increasingly discredited U.N. scientific assessment organization—the Intergovernmental Panel on Climate Change (IPCC). They will also hear how the EPA has decided, that despite almost forty years of practice and a well-settled understanding to the contrary, it shares statutory authority with the National Highway Traffic Safety Administration to set fuel economy standards for automobiles. Finally, the courts will listen as the EPA explains that, because millions of businesses emit more than 250 tons of GHG emissions per year and would therefore be regulated as stationary sources under the language of the CAA, the EPA has rewritten the CAA so that only those facilities with GHG emissions of more than 25,000 tons per year will be regulated as stationary sources under the statute. Having failed to reach the correct result in Massachusetts v. EPA-that regulating GHG emissions under the CAA was never contemplated by Congress and would lead to absurd results, and that states in any event have no standing to complain in court about what they had failed to achieve in Congress—the courts will be faced with the prospect of contorting administrative law in ways that will allow the EPA effectively to rewrite federal statutes by determining not only which firms are regulated but also how far it may extend its own remedial authority, and to base national environmental policy with multi-trillion dollar consequences on the highly politicized "scientific" findings of U.N.-sponsored institutions.

One hopes that before this spectacle fully unfolds in the courts, Congress will pass legislation overturning *Massachusetts v. EPA* and clarifying that the CAA does not apply to GHG emissions. Of course, if this occurs, then there will no longer be a "displacing" federal regulatory scheme for GHG emissions, and under the Court's reasoning in *AEP v. Connecticut*, there will be an open question as to whether that or other interstate public nuisance actions can survive. Relying as it did on the displacement theory, the Court's opinion in *AEP v. Connecticut* of course says nothing about either standing or the rationale and contemporary limits to the interstate public nuisance doctrine. Hence, there is a very real risk that the elimination of GHG regulation

under the CAA could revive the global warming interstate public nuisance lawsuits. This would be a disastrous outcome. Such actions are no longer needed and are harmful to both democracy and sound public policy. This applies not only to a case like AEP v. Connecticut—in which states sought injunctive relief against private firms operating in other states—but also to other interstate public nuisance cases involving private or municipal plaintiffs seeking damages from private firms. See, e.g., Comer v. Murphy Oil USA, 607 F.3d 1049 (5th Cir. 2010) (dismissing an appeal brought by a group of private plaintiffs); Native Vill. of Kivalina v. ExxonMobil Corp., 663 F. Supp. 2d 863 (N.D. Cal. 2009) (granting the firms' motion to dismiss in a case brought by a municipality).

The public policy justification for interstate public nuisance differs from the policy justifications for torts generally. Ordinary tort liability is conventionally justified as furthering the goals of both deterrence and compensation. The original justification for interstate public nuisance liability for pollution was not, in my view, either to deter or compensate, but to provide a forum for states to bargain to resolve such interstate disputes. The first interstate public nuisance actions, Missouri v. Illinois, 200 U.S. 496 (1906), and Georgia v. Tennessee Copper Co., 206 U.S. 230 (1907), arose at a time in U.S. history when it was generally agreed that Congress lacked the constitutional authority to regulate interstate pollution and also understood that one state lacked the constitutional power to regulate activities in another state. Hence, at that point in our constitutional history, if the Court had not agreed to arbitrate these early interstate nuisance disputes, then a victim state only had the options of essentially recognizing a right in the polluting state to pollute, or taking potentially violent steps in reprisal. (One must remember that for Justice Holmes, writing in 1906-07, violent reprisal was not some rhetorical fancy: Holmes had fought and was injured in three separate battles during the Civil War.)

On this theory, unlike traditional common law torts—where the civil justice system provides a remedy if the plaintiff can establish duty, breach, causation, proximate causation, and harm—the purpose of interstate public nuisance was never to provide a *remedy*, but rather to provide a *forum* for interjurisdictional bargaining. This theory is consistent with the one clear feature in all of the federal courts' interstate public nuisance opinions: that the courts do not want to decide such disputes, but rather want the public and private parties to reach a bargained resolution. Moreover, this theory makes sense of the extremely amorphous substantive standard in interstate public nuisance cas-

es—requiring roughly that the plaintiff state establish by clear and convincing evidence that its citizens have suffered a serious harm that was caused by an activity of the defendant that it, the plaintiff, does not itself allow. While such a vague standard may be undesirable from the perspective of ex ante deterrence, such a standard actually encourages bargaining relative to a world where courts refuse to intervene at all.

True, there are a small number of interstate public nuisance cases, such as Tennessee Copper, where the federal courts actually used their equitable authority to order a private polluter to take certain steps to reduce pollution. But, once again, Tennessee Copper was decided at a time when there was either a judicial remedy based on interstate public nuisance or no remedy at all. It is atypical in the extreme: most of the interstate public nuisance cases involved states on both sides, and most of them dragged on for many years as the states continued to bargain and haggle over their particular interstate pollution problem. The controversy over the various alleged harms caused to residents of St. Louis by the city of Chicago's diversion of the Chicago River, at issue in the Court's 1906 decision in Missouri v. Illinois, lasted for decades, as it expanded to include states such as New York, Michigan, and Wisconsin, which argued that diversion had lowered the level of the Great Lakes, thus harming navigation. The dispute between New York and New Jersey over New Jersey's plan to dump sewage into New York Bay likewise took decades to settle. The Court's final word was the weary "suggestion" that

the grave problem of sewage disposal presented by the large and growing populations living on the shores of New York Bay is one more likely to be wisely solved by cooperative study and by conference and mutual concession on the part of representatives of the States so vitally interested in it than by proceedings in any court however constituted.

New York v. New Jersey, 256 U.S. 296, 313 (1921).

Most interstate public nuisance disputes eventually disappeared as Congress either authorized an interstate compact among the affected states—with the courts then asked only to enforce the terms of the compact—or passed general legislation covering the type of pollution problem involved in the particular nuisance case. Thus, in my view, interstate public nuisance was designed to provide a forum for interstate bargaining when such bargaining could not occur in Congress. Given that it now can and does occur in Congress, there is no longer a role for the federal common law of interstate public nuisance.

To this it might be objected that even with clear constitutional authority for Congress to deal legislatively with interstate pollution prob-

lems, interstate public nuisance still plays an important, if residual, role in allowing the federal courts to step in and remedy interstate public nuisances that Congress has failed to address. This argument, it must be admitted, has constitutional support in Article III's clear vesting of the federal judicial power over "[c] ontroversies between two or more states." U.S. CONST. art. III, § 2. Moreover, as has long been recognized, the resolution of interstate disputes has traditionally been considered a core area of federal common law.

However, such interstate disputes subject to traditional federal common law have almost always involved state borders or the allocation of shared boundary waters. The Court's seminal interstate pollution cases-Missouri v. Illinois and Tennessee Copper-both involved what may be called boundary-line pollution, with an allegedly direct connection between the offending activity upstream and the alleged harm downstream (where "stream" may, as in Tennessee Copper, include airstream). The Court has in fact never before exercised jurisdiction over an interstate public nuisance case where the connection between the activities of the defendants and the alleged harm suffered by the plaintiff states is as indirect and highly speculative as it was in AEP v. Connecticut. Moreover, the Court has never before exercised jurisdiction over an interstate public nuisance suit where, by the plaintiff states' own admission, the defendants' actions—emitting GHGs—are both engaged in by and causing harm to virtually every person or business in the United States, the overwhelming majority of whom are not parties to the lawsuit.

Both of these features—indirect and highly speculative harm, and extreme underinclusiveness on both the plaintiff and defendant side given the near universal nature of the activity and the alleged harm make the question of limiting GHG emissions unsuitable for judicial resolution. As for the first feature, the more willing the Court is to hear cases where the interstate harm is speculative, indirect, and incapable of judicial remedy (as it is in the GHG-emissions-as-publicnuisance cases), the greater federal judges' freedom will be to create federal common law for any "interstate" problem that such judges deem serious. And the further federal courts stray from confined and traditional notions of what constitutes an interstate dispute governed by federal common law, the greater the risk that federal judges will effectively become super-legislators, supplementing federal legislation whenever they are persuaded that there is a serious "interstate" pollution problem or any other public harm that Congress has failed to address.

If it focuses on the requirement that the plaintiff allege an "interstate" harm traditionally subject to federal common law, constitutional standing doctrine could itself prevent "interstate public nuisance" from becoming such a free-floating license for lawmaking by federal judges. Constitutional standing would require that the plaintiff states present at least some credible evidence that (1) individuals in their states have been or are being harmed; (2) their harm is fairly and directly (and perhaps foreseeably) traceable to the defendants' activities; and (3) a federal court could actually remedy that harm. Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992). In the GHGemissions-as-public-nuisance cases, plaintiffs easily found experts to submit sworn affidavits that global warming has caused environmental changes—not because this is likely true, but because there are a large number of activist scientists who are committed to the belief that it is likely true. But it would be much more difficult to credibly tie any individual's harm to such alleged environmental harm, and there is simply no reason to believe that any reduction in the GHG emissions of a few power companies could possibly remedy such individual harm.

The second feature of the GHG-emissions-as-public-nuisance cases—the fact that millions of people in every state engage in the activity and suffer the harm that it allegedly causes, but only a few are parties to the lawsuit—raises even more serious policy concerns. Disputes over borders and the allocation of shared waters typically involve a small number of states, and it is at least arguable, despite the large number of congressionally authorized interstate compacts, that when such a small number of states are involved, Congress might well not take an interest in the matter. Thus, the federal courts would have to step in to provide the only forum where interstate bargaining might take place. However, when the allegedly harmful activity—emitting GHGs—is conducted in every state, with potential impacts in every state, an interstate public nuisance action that allows some plaintiff states to pick and choose defendant firms in other plaintiff states is almost certain to generate outcomes with which Congress would never agree.

In an interstate public nuisance suit over GHG emissions, plaintiff states whose representatives perceive big benefits from emission reduction are free to pick and choose as defendants out-of-state private firms that bear only a portion of the full social cost of pollution reduction. In AEP v. Connecticut, for example, the plaintiff states for the most part had relatively low per capita GHG emissions, primarily because their electric utilities did not use much coal as a fuel source in power plants. Thus the plaintiff states had low costs and relatively

high perceived benefits from GHG emission reduction. They were highly unrepresentative of the United States as a whole, which includes states that will disproportionately bear the costs of GHG emission reduction—such as the Dakotas, Wyoming, and West Virginia—and that will almost surely have large net losses from GHG emission reduction. The defendants in *AEP v. Connecticut* included a group of regulated public utilities that rely heavily on coal as a source of fuel for electricity generation, but none of which provide electricity to the citizens of the plaintiff states. Thus if plaintiffs succeeded in a case such as *AEP v. Connecticut*, a federal judge or jury would get to decide that people—shareholders, power consumers, and ordinary citizens—in some states should bear the entire cost of reducing GHG emissions in order to provide little, if any, benefit (and perhaps actually cause harm) to themselves while providing a highly speculative potential benefit to people who reside in other states.

It is unimaginable that Congress would endorse such an outcome. Consider, for example, the recent Waxman-Markey bill of 2009 that would have created a national cap-and-trade scheme for reducing GHG emissions. American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009). In the economist's idealized version of a cap-and-trade scheme—where individual emitters are given permits to emit and then may comply either by reducing their emissions or buying permits from other emitters—virtually all distributional issues are dealt with at the initial permit-allocation stage. But Waxman-Markey was filled with provisions designed to cut the costs of cap-andtrade to various politically key states. To lessen the cost of the bill to states that produce or rely upon coal for electricity, the bill included subsidies for the continued use of coal instead of natural gas subsidies that, according to the EPA, would have actually increased the share of power produced by coal-burning plants relative to what would be expected without the bill. For agricultural states, the bill had a system of offsets whereby ordinary agricultural production would have generated GHG emission-reduction credits that could be sold to GHG-emitting firms in other states. And for urban Democrats in states where heating costs can be high, Waxman-Markey included subsidies for electricity cost increases borne by the poor.

Thus one clear lesson from Waxman-Markey is that any GHG emission–reduction legislation that makes it through Congress will not do what an interstate public nuisance action would do: simply stick all the costs of such emission reduction on some states while giving others perceived benefits. Of course, Waxman-Markey ultimately

failed to gain passage in both chambers. Comments by various members of Congress during the consideration of Waxman-Markey, coupled with Congress's unanimous rejection of the Kyoto Protocol, indicate that Congress has not passed U.S. climate change legislation, in part, because many members of Congress doubt that unilateral action by the United States to reduce its GHG emissions would generate real benefits for any state. Probably the dominant congressional view has been that, even if there could be some future benefit to the United States from reducing GHG accumulations in the atmosphere, given the extremely rapid increase in GHG emissions from certain large industrializing countries, in particular China, unilateral action by the United States will impose costs on Americans, with limited benefits in return.

This is almost surely correct. There is no credible economic model in which unilateral action by the United States to reduce its GHG emissions increases the probability that countries like China will take similar action, generating an actual potential future benefit. I know of no public nuisance case, either interstate or one arising under state law, where a court has found that the actions of the defendants constitute a public nuisance and must be curtailed even though the harm from their actions will be abated if, and only if, other countries require their citizens to curtail their comparable actions. For a court to ignore the international nature of the GHG-accumulation issue and simply order some American power companies to reduce their emissions on the ground that they constitute a public nuisance would be to impose potentially huge and damaging costs on American firms and individuals with no benefit. This would implement, through the common law, an irrational and harmful policy result that Congress has time and time again rejected. The courts must clarify that there is no public nuisance cause of action for GHG emissions.

REBUTTAL

Greenhouse Gas Emissions as Public Nuisances

Heidi M. Hurd[†]

If Professor Johnston had his way, greenhouse gas (GHG) emission standards would be set directly by Congress, or not at all. This is because, as he argues, both the EPA and the courts are either too dishonest or too incompetent for the job.

At the root of his cynicism about all but the most cynical of government's branches is his skepticism about the validity of fears regarding anthropogenic climate change. Disparaging the EPA's reliance on the "highly politicized 'scientific' findings" of "an increasingly discredited U.N. scientific assessment organization—the Intergovernmental Panel on Climate Change," Professor Johnston worries that courts will be similarly corrupted by experts who will "submit sworn affidavits that global warming has caused environmental changes—not because this is likely true, but because there are a large number of activist scientists who are committed to the belief that it is likely true."

It would seem to me that if one is skeptical of climate science because of a fear of politicization, then one would not transfer one's faith from scientists to politicians who are nothing if not political. On the other hand, it is easy to think that Congress is the appropriate venue for disputes about GHG emissions if one fundamentally disbelieves the warnings about anthropogenic climate change. If fear of global warming is like fear of snipes, then one should be unconcerned about leaving the matter to politicians who will, ex hypothesi, do no harm if they do nothing. Were Professor Johnston to believe that the fate of humanity and of many of the Earth's other miraculous life forms turned on the tons of GHG emissions that Americans, among others, put into the atmosphere during this century, it is hard to imagine that he would be as sanguine about vesting decisions about GHG emissions in the hands of our elected politicians whose job description is to champion the interests of the few (their constituents) over the interests of the many, and whose practice is to elevate their own election prospects over the interests of all.

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Unlike Professor Johnston, I do not presume that the widespread consensus among climate scientists is so politicized as to be empirically invalid (and I have never understood why the global community of scientists would have an interest in betraying the principles of their discipline to convince us that the sky is falling if there is no danger of it so doing). I thus do not share Professor Johnston's comfortable notion that we are very likely on a snipe hunt that can appropriately be left to those whose disfunctionalities will likely prevent a serious chase.

Were I to indulge my own institutional skepticisms, I would raise countervailing worries about the degree to which those at the EPA have been captured, or at least unduly influenced, by the very industries that they are charged with policing. My worry, in other words, would be about the corporatization of administrative agencies, rather than the politicization of scientific panels. This is to say that Professor Johnston and I share doubts about the EPA as an unbiased arbiter of the potential problems posed by GHG emissions, even as his doubts concern the EPA's corruption by left-leaning environmentalists while mine concern its corruption by right-leaning corporate moguls.

What we do not share is a similar distrust of the ability of courts to adjudicate disputes that might arise either despite EPA rulemaking concerning GHG emissions or in its absence, were Congress to contradict the Supreme Court's interpretation in Massachusetts v. EPA, 549 U.S. 497 (2007), by explicitly specifying that the Clean Air Act (CAA) does not apply to GHG emissions, as Professor Johnston hopes it will. Professor Johnston expresses relief over the Supreme Court's recent decision in American Electric Power Co. (AEP) v. Connecticut, 131 S. Ct. 2527 (2011), in which it concluded that federal common law actions seeking curtailment of carbon dioxide emissions from fossil fuel-fired power plants are displaced by the emission standards set by the EPA pursuant to the CAA. Id. at 2532. His relief stems from his conviction that judges ought not to employ tort law to address harms as "speculative, indirect, and incapable of judicial remedy" as are those in public nuisance cases that concern GHG emissions. As he argues, judges cannot help but trade their appropriate role as adjudicators for that of "super-legislators" when they seek to redress harms from phenomena as multi-caused and multi-causal as global warming.

Professor Johnston's dismissal of the notion that these cases properly belong to tort law is premised, however, on a Potemkin view of the scope and purposes of tort law. As he conceives it, tort liability is justified only when it can further "the goals of... deterrence and compensation." As a regulatory instrument, one might well think that

tort law would compete poorly with congressional or agency action when it comes to setting GHG emissions standards, for as Professor Johnston suggests, decisions concerning how best to set such standards require a balancing of economic costs and environmental benefits. It is plausible to think that such "bargained resolution[s]" are best achieved through democratic processes.

Similarly, if tort law is conceived of as a vehicle for compensation, designed to spread losses in order to encourage the return to productivity of those who might otherwise be sidelined by crushing debts, then tort law should plausibly give way to social insurance schemes or other centrally organized compensation funds when harms are widely caused and widely distributed. If these were our sole options, then one might join Professor Johnston in thinking that tort law cannot live up to its mission in cases involving GHG emissions, for both of its goals would indeed seemingly be better served by the actions of Congress or a deputized agency.

But tort law is not best justified by either of these goals, so the fact that it might serve them poorly in GHG emissions cases is neither here nor there. Tort law is best justified by its unique ability to vindicate moral rights and to compel compensation for moral wrongs. In the language of Professor Douglas Kysar's amicus brief in *AEP v. Connecticut* (to which I was a signatory):

[W]hether or not courts appear inferior to other institutions in addressing the climate change problem depends first on how one constructs "the problem."

The most appropriate construction of the problem raised by the instant litigation is one that can be addressed *only* by courts: Have the actions of Petitioners violated the common law entitlement of Respondents to be free from unreasonable injury?

Brief Amici Curiae of Tort Law Scholars in Support of Respondents at 2, *AEP v. Connecticut*, 131 S. Ct. 2527 (No. 10-174), 2011 WL 1042198.

Tort law is principally devoted to ensuring that corrective justice is achieved after citizens have been wronged; it is only incidentally a source of incentives for avoiding wrongdoing to begin with. Its task is backward looking, not forward looking. While tort law has a rich understanding of the kinds of wrongs that will merit liability, statutory enactments and agency regulations may better fulfill the forward-looking task of optimizing incentives to avoid wrongdoing (by, for example, setting standards concerning GHG emissions). But to say that tort law might not be the ideal mechanism for deterring the over-production of GHG emissions is not to say that it would not be an ap-

propriate arbiter—indeed, the only appropriate arbiter—of claims that disproportionate GHG emissions have constituted wrongs to others who are entitled to injunctive or compensatory relief.

Anticipating, perhaps, that his is not the only, or even the most broadly accepted, view of tort law, Professor Johnston brushes aside all views of tort law as irrelevant with the claim that interstate public nuisance suits have really never been tort suits at all, and therefore, should not invite analysis according to traditional tort rationales of any stripe. On his account, "the purpose of interstate public nuisance was never to provide a *remedy*, but rather to provide a *forum* for interjurisdictional bargaining." Inasmuch as Congress now provides that forum, there is no need, in his view, to employ public nuisance law as a vehicle for interstate negotiation.

But Professor Johnston's opposition of tort and settlement is a false one. Even the most traditional tort cases provide forums for bargained settlement. The fact that parties seek to settle suits in the course of trying them—and that courts encourage such settlement does not make such suits anything other than torts suits, just as the common practice of plea bargaining does not make criminal cases fora for prosecutorial bargaining rather than true criminal cases. So Professor Johnston cannot dismiss public nuisance cases from the jurisdiction of tort law simply by pointing to the historical fact that the threat of tort liability has successfully motivated public parties to persist in settlement efforts. And he cannot deny that such suits raised plausible claims for corrective justice simply because Congress eventually enacted laws that were more comprehensive in their remedial scope than anything specifically sought by litigants. So a defense of the legitimacy of suits such as AEP v. Connecticut cannot be mooted by the charge that it reflects a category mistake.

Broadly speaking, tort law reflects two theories upon which citizens (and the states of which they are citizens) are entitled to corrective justice. On one theory, the causal fault theory, citizens have a right to be made whole when they have suffered culpably caused harm. On the other theory, the unjust enrichment theory, citizens have a right to restoration when others have deliberately externalized to them the costs of an activity, while asymmetrically internalizing its benefits. In his third set of complaints about the use of public nuisance suits to redress harms that are a product of GHG emissions, Professor Johnston casts doubt on the ability of plaintiffs to meet the conditions for liability made relevant by both of these theories. These, at least, are substantive arguments on which issue can be joined.

Whether the plaintiffs in AEP v. Connecticut could bear the evidentiary burdens required to persevere with a case for negligence meriting a remedy according to the causal fault theory is something we cannot now know, and it is not something that Professor Johnston can decide, ex cathedra, to the contrary. It is certainly no argument that the harm suffered by the plaintiffs is a harm suffered by "millions of people in every state." As William Prosser famously said,

It is the business of the law to remedy wrongs that deserve it, even at the expense of a "flood of litigation," and it is a pitiful confession of incompetence on the part of any court of justice to deny relief on such grounds. . . . [I]f injuries are multiplied, actions should be multiplied, so injured persons may have recompense.

W. PAGE KEETON, ET AL., PROSSER AND KEETON ON TORTS 56 (5th ed. 1984).

Of more serious concern to the pursuit of liability on the causal fault theory is Professor Johnston's fear that "[f]or a court to ignore the international nature of the GHG-accumulation issue and simply order some American power companies to reduce their emissions on the ground that they constitute a public nuisance would be to impose potentially huge and damaging costs on American firms and individuals with no benefit." Professor Johnston is right that if American plaintiffs will suffer the same climatically induced harms regardless of American defendants' past, present, and predicted GHG emissions, then we need to have an account of how such harms could be thought to be caused by the defendants' activities. Given the rapid increase in GHG emissions from China and other industrializing nations, Professor Johnston could be right in thinking that American GHG emissions will become, in the grand scheme of things, de minimis. (I actually think that this takes a good deal of imagination. While China is now the leading producer of GHG emissions, the average American is responsible for more than four times the GHG emissions than is the average Chinese. And because one-third of China's emissions are the result of manufacturing goods for export and 40% of consumer goods purchased in America are made in China, a sizable portion of China's GHG emissions should be marked "made in America!")

But here is the rub. Even if American GHG emissions turn out to be de minimis by comparison to the GHG emissions of other nations, de minimis contributions function as true causes of harm, despite their comparatively small nature. When someone joins a gang in stabbing a victim, the fact that the cuts he inflicts are small relative to those inflicted by others does not defeat the conviction that he concurrently causes the victim's death when the victim bleeds to death, in part, through his smaller wounds. The fact that the victim would have bled to death anyway is neither here nor there; for the death he in fact died was caused, in part, by the lesser wounds of the timid contributor.

So while global warming may never have happened (or may never happen in a manner that is catastrophic) but for China's GHG emissions, if America's GHG emissions are among those that are physically absorbing thermal radiation from the planetary surface, then they can be counted as causes of the harms sustained by Americans as a result of climate change. Put differently, "small causes" of harms are nonetheless causes. Inasmuch as tort law can and does treat "small causers" as joint tortfeasors even when they are individually neither necessary nor sufficient, the plaintiffs in AEP v. Connecticut ought not to have been barred from suing the defendants just because those defendants have Chinese counterparts whose activities are similarly bleeding the atmosphere of its absorption capacities. Were a court worried that future suits might seek more than the injunctive relief sought by the AEP v. Connecticut plaintiffs, it could squelch fears of joint and several liability by crafting a variation of the creative market share liability scheme famously devised in Sindell v. Abbott Laboratories, 607 P.2d 924 (Cal. 1980).

In the alternative, the plaintiffs in *AEP v. Connecticut* might plausibly have predicated their demand for relief from climate-affecting GHG emissions on the second theory of tort liability, unjust enrichment. The power made possible by coal is inexpensively produced and inexpensively purchased only because so many of its costs are externalized to others. Consider just some of the costs associated with coal that are not included in the price of electricity produced by coalburning power plants:

- Coal fires in underground mines are expected to burn for centuries and currently contribute as much carbon dioxide to the atmosphere as all American vehicles do. Such climatic costs are not included in the price of coal.
- While 30% of coal is still mined underground, companies can obtain two-and-a-half times more coal per worker per hour through mountaintop removal and valley fill. During this process, a mountain is clear-cut, its lumber is sold,

¹ See Glenn B. Stracher & Tammy P. Taylor, Coal Fires Burning Out of Control Around the World: Thermodynamic Recipe for Environmental Catastrophe, 59 INT'L J. COAL GEOLOGY 7, 10 (2004).

² Most Requested Statistics: U.S. Coal Industry, NAT'L MINING ASS'N, http://www.nma.org/pdf/c_most_requested.pdf (last updated June 2011).

- and its slash is burned. The loss of its forest habitat and migratory resting places, the annihilation of its animal inhabitants, the ensuing landslides and floods, and the atmospheric emissions caused by the massive mining equipment are not included in the price of coal.³
- To remove the layers of topsoil and shale that "overburden" the coal seams below, well over 1000 metric tons of explosives per day are presently detonated. The damage caused to local home foundations and wells and the increased local rates of lung cancer and chronic heart, lung, and kidney disease caused by the fog of silica dust in which local citizens are forced to live are not included in the price of coal.⁵ To expose the veins of coal, eightmillion-pound, twenty-story-high machines with gymnasium-sized bases unburden coal companies of the "overburden" by dumping it into adjacent valleys. To date, over 2000 miles of Appalachian headwater streams have been buried in highly acidic mining waste.⁷ The costs of transforming incomparably beautiful, environmentally essential mountain ecosystems into biologically dead moonscapes are not included in the price of coal.
- Runoff pollutes downstream waters with silt high in iron and sulfur, the costs of which are not included in the price of coal. "Coal washing" produces thousands of gallons of sludge thick in carcinogenic chemicals and heavy metals, floods of which have killed and injured thousands and caused hundreds of millions of dollars of damage.

³ See M. A. Palmer et al., Mountaintop Mining Consequences, 327 SCIENCE 148, 148-49 (2010); see also Mid-Atlantic Mountaintop Mining, U.S. ENVTL. PROTECTION AGENCY, http://www.epa.gov/region03/mtntop/index.htm (last visited Sept. 12, 2011). ⁴ Lori E. Apodaca, Explosives, in U.S. GEOLOGICAL SURVEY: 2009 MINERALS YEARBOOK 23.1, 23.3 tbl.2 (2010), available at http://minerals.usgs.gov/minerals/pubs/commodity/explosives/myb1-2009-explo.pdf.

⁵ Cf. Keith J. Zullig & Michael Hendryx, Health-Related Quality of Life Among Central Appalachian Residents in Mountaintop Mining Counties, 101 Am. J. Pub. HEALTH 848, 848 (2011).

⁶ See Caterpillar, Inc., Draglines: Product Line 5-7 (2011), available at https://mining.cat.com/cda/files/2884562/7/draglines_AEXQ0595_01.pdf; see also Claudia Copeland, Cong. Research Serv., RS21421, Mountaintop Mining: Background on Current Controversies 1 (2011).

COPELAND, *supra* note 6, at 1.

 $^{^8}$ See generally Kai T. Erikson, Everything In Its Path (1976); Gerald M. Stern, The Buffalo Creek Disaster (1976).

- clared "acts of God," these costs are not included in the price of coal. 9
- The two-lane roads required to support the enormous trucks that haul the coal from mining sites to "loadouts" and on to market destinations cost \$500,000 per mile, as compared to four-lane highways that cost \$100,000 per mile. And the service life of coal haul roads is between two and four years, rather than the standard twenty years for other roads. These industry-specific infrastructure costs are not included in the price of coal.
- And when these ancient organic remains of the peat bogs of the Carboniferous Period reach the coal-fired power plants that convert 88% of the world's coal into electricity, they become the principle source of human-caused carbon dioxide emissions and—if climate scientists are to be believed—the principal source of global warming. Inasmuch as coal-burning power plants have not been forced to internalize the costs of such climate change through tort suits or other price-effecting mechanisms, such costs are not included in the price of their electricity. Thus, those who live in states that rely on coal for the production of electricity reap a benefit at the expense of those who live in states that do not reciprocally externalize their costs of power.

One means of forcing an industry (and its consumers) to bear its costs along with its benefits is to force it to compensate those to whom it externalizes its costs. Another means of preventing such unjust enrichment is by enjoining the industry from imposing more costs on others than it and its consumers are reciprocally forced to bear in return. But the prospect of turning to tort law for either of these means of policing the unjust enrichment of coal-dependent states offends Professor Johnston. As he argues, "a federal judge or jury would get to decide that people . . . should bear the entire cost of reducing GHG emissions to provide little, if any, benefit (and perhaps actually cause harm) to themselves while providing a highly speculative benefit to people who reside in other states."

⁹ STERN, *supra* note 8, at 10.

¹⁰ MELISSA FRY KONTY & JASON BAILEY, MOUNTAIN ASS'N FOR CMTY. ECON. DEV., THE IMPACT OF COAL ON THE KENTUCKY STATE BUDGET 15 (2009), available at http://www.maced.org/coal/documents/Impact_of_Coal.pdf.
¹¹ Id.

But nothing in tort law or its underlying rationales would license the notion that a defendant should be required to give up (and make reparations for) a harmful or unjustly enriching activity only if there will be some (further) resulting benefit in it for him. That a wrong-doer will lose the advantages of his wrongdoing if he is forced to give it up is hardly an argument for allowing him to continue. Inasmuch as Professor Johnston favors the prospect of using the political arena rather than the courts to resolve disputes over GHG emissions, he appears to think that victims of wrongdoing should have to bribe their wrongdoers in order to obtain what they are independently owed. We have courts, however, precisely to guarantee that moral obligations are not bought and sold, and that those who are owed justice by others do not have to horse-trade for it as though it were a commodity, rather than a right.

CLOSING STATEMENT

Public Nuisance Liability for Greenhouse Gas Emissions: A Cause of Action that Should Not Exist

JASON SCOTT JOHNSTON

In responding to Professor Hurd and closing my contribution to this debate, I begin with a quick clarification and reminder. Nowhere did I argue that the Environmental Protection Agency (EPA) and the courts are "too dishonest or too incompetent" to regulate greenhouse gas (GHG) emissions. Instead, as one can see simply by reading what I wrote, I argued that the Supreme Court was wrong to interpret the Clean Air Act as covering GHG emissions. Its decision in *Massachusetts v. EPA*, 549 U.S. 497 (2007), put the EPA in the position of basing regulations on contorted interpretations of the statute and on highly uncertain computer projections of future climate produced by the Intergovernmental Panel on Climate Change (IPCC), an overtly and intentionally political U.N. institution.

It is true that my argument against a cause of action in interstate public nuisance does rely in part on my conception of the proper role for courts in regulating GHG emissions. But my argument is not that courts are incompetent, but rather that Congress, not the parties to interstate public nuisance actions, should determine if and how to regulate GHG emissions. As I argued, the substantive standard for finding an actionable interstate public nuisance is so amorphous that it would become a license for judicial lawmaking if not confined within traditional contours.

Even worse (and adding here to my initial argument), to "regulate" GHG emissions through interstate public nuisance cases is to vest private individuals and state attorneys general with the power to decide who among us—and all Americans generate some GHG emissions—will be held responsible for the alleged harm from such emissions. Courts, after all, do not decide who will be sued in interstate public nuisance. To allow private plaintiffs to decide who should pay damages for harms allegedly caused by past emissions, as in *Comer v. Murphy Oil USA*, 607 F.3d 1049 (5th Cir. 2010) and *Native Village of Kivalina v. ExxonMobil Corp.*, 663 F. Supp. 2d 863 (N.D. Cal. 2009), and state attorneys general to decide who should bear the cost of reducing future GHG emissions, as in *American Electric Power Co. (AEP) v. Connecticut*, 131 S. Ct. 2527 (2011), is both unfair and likely inefficient. There is no reason to expect that judges and juries in different juris-

dictions will agree on either the costs or benefits of GHG emission reduction. High visibility targets of such litigation—such as the defendants in AEP v. Connecticut—could well be subject to conflicting and inconsistent regulatory injunctions. Common law damage awards against deep-pocketed or politically attractive out-of-state defendants would substitute for a system of (at least potentially) rational taxation. Regulation by public nuisance tort litigation is almost certain to generate a haphazard, variable, and highly politicized pattern of injunctive relief and damages awards that bears little, if any, relationship to either a fair or efficient approach to reducing national GHG emissions.

Of course, neither this form of distributional unfairness nor the potential inefficiency of interstate public nuisance actions is necessarily relevant in Professor Hurd's model of tort law. In her view, tort law is "best justified by its unique ability to vindicate moral rights and to compel compensation for moral wrongs." As Professor Hurd elaborates, tort law comes into play both to compensate people who have been "culpably caused harm" and to serve the goal of "restoration" when others have "deliberately externalized to them the costs of an activity, while asymmetrically internalizing its benefits."

These theories have been attractive to some philosophically minded torts scholars and are much discussed in the law review literature. I am happy to concede that the objective of furthering some notion of corrective justice is consistent with and may partly explain the doctrinal structure of traditional tort law. However, the plaintiffs in AEP v. Connecticut sought injunctive relief that was explicitly regulatory and that was—almost as explicitly—intended to provoke Congress to enact comprehensive global warming legislation. The closely related goal of deterring the defendants from continuing to emit relatively high levels of GHGs was an additional objective of the plaintiffs in AEP v. Connecticut, as well as in the Village of Kivalina and Comer lawsuits. In the latter two cases, moreover, the plaintiffs sought billions of dollars in compensatory damages. Thus the global warming public nuisance lawsuits are all about using tort law for the instrumental purposes of regulating and/or provoking legislation, deterring tortious behavior, and compensating plaintiffs. If Professor Hurd does not believe that tort liability furthers any of these goals, but merely serves the pursuit of corrective justice, then it is hard to see how she can support the global warming public nuisance lawsuits.

Whatever may be the fundamental justification for tort liability, courts seem to think of torts as particular causes of action, with the plaintiffs required to plead and prove various elements of each cause

of action. The causes of action at issue in the global warming public nuisance cases are interstate public nuisance and also (although not addressed by the Court in AEP v. Connecticut) state law public nuisance. In my opening I argued that the federal courts have understood and (let me clarify, lest I make a "category mistake") should continue to view interstate public nuisance as having an extremely limited role, one that has now been made obsolete by expansive congressional regulatory power. As for state law public nuisance, Professor Thomas W. Merrill of Columbia Law School explains in great detail in an article forthcoming in the Journal of Tort Law that William Prosser-upon whom Professor Hurd relies as approving an extremely broad corrective-justice mission for tort law-believed that the common law narrowly defined a "public nuisance" as a "criminal interference with a right common to all members of the public." Thomas W. Merrill, Is Public Nuisance a Tort?, 4 J. TORT LAW (forthcoming Oct. 2011) (manuscript at 24), available at http://www.bepress.com/jtl/vol4/iss2/art4. Prosser was correct—and Merrill argues persuasively that he was then state law public nuisance liability would lie only for actions that were criminal. To my knowledge, no state has criminalized the act of burning coal to generate electric power—the defendants' actions in AEP v. Connecticut—or of producing oil and refining gasoline and other petroleum products—the actions of the majority of the defendants in Village of Kivalina and Comer.

Professor Hurd does not quite advocate the criminalization of coal and oil production and use, but she comes close. In responding to my argument that it would not make much sense for the American federal courts to order the reduction of the GHG emissions of selected American firms unless the GHG emissions of China, India, and other industrializing countries are also controlled, she argues:

When someone joins a gang in stabbing a victim, the fact that the cuts he inflicts are small relative to those inflicted by others does not defeat the conviction that he concurrently causes the victim's death when the victim bleeds to death, in part, through his smaller wounds. The fact that the victim would have bled to death anyway is neither here nor there...."

I must confess that I had never thought to analogize to a concerted gang stabbing the activities of firms that produce the electricity and power used by the automobiles, trains, and planes that most Americans rely upon for everyday life. As for Professor Hurd's analogy, it is one thing to hold liable someone who makes only a de minimis contribution to causing harm but whose conduct—intentionally stabbing a person—is morally reprehensible. From a moral point of

view, it seems clearly to be justified to hold the stabber liable even if he has only inflicted superficial wounds and even if all the other gang members escape liability entirely. It is another thing to issue an injunction requiring costly reductions in GHG emissions by only a few firms targeted as defendants when in fact everyone in society is emitting GHGs and when many could reduce their GHG emissions at far less cost than the targeted defendants.

According to Professor Hurd, tort law not only serves to "compensat[e] for moral wrongs," but also to force people who "asymmetrically internaliz[e] [the] benefits" of their activities to pay for the harm that their activities cause. This rationale for tort liability—what Professor Hurd calls the unjust enrichment branch of corrective justice theory seems sound enough in principle. But Professor Hurd's example illustrating the unjust enrichment principle in practice—the many harmful environmental consequences of mountaintop coal mining—reveals the inadequacy of the unjust enrichment theory as applied in the contemporary regulatory state. Coal mining is subject to both state and federal regulations that require coal companies to incur substantial costs so as to reduce the harm that mining causes to other people. Professor Hurd may think that these regulations are inadequate, that mountaintop mining should be banned, and that the coal companies should have to incur far greater expense to better reclaim the lands that they mine and perhaps to compensate people who live nearby. But Professor Hurd does not justify public nuisance as remedying inadequate regulation, and yet her unjust enrichment theory of tort law would seem to require that the adequacy of the regulatory response be considered. For if the regulatory regime were ideal from a corrective-justice point of view—requiring that coal companies internalize all of the harm caused to others by their activities—then it would seem that there would be nothing left for tort law to do if the goal of tort law were only to compensate and/or take away ill-gotten gains. With such an ideal regulatory regime, the only role for tort law would seem to be to punish.

Professor Hurd does not say anything about whether it is appropriate to use tort law to punish. However, her conception of tort law—that tort damages "vindicate" moral wrongs—clearly contains a normative component, in that someone has to determine that there is indeed a "moral wrong" to be "vindicated" with tort damages. It does seem that many self-declared environmentalists are convinced that emitting GHGs as a byproduct of producing coal or oil or that using those products to produce electricity or to power transportation does

constitute such a moral wrong. But it also seems clear that many, perhaps most, Americans would violently disagree with such a proposition. Determining whether to regulate or tax GHG emitters, and determining which emitters to target given the universality of GHG emissions are policy questions whose answers affect the lives and well-being of virtually every American. Congress is a highly imperfect institution, and in my view today's federal regulatory state is much too intrusive, infringing upon the liberty of individuals and stifling business competition and entrepreneurial creativity. In the case of the regulation of GHG emissions, however, we have a remarkable instance in which a majority of Congress has repeatedly decided that the case for a law requiring unilateral American GHG emission reductions has *not* been made. That decision should be respected, rather than effectively overturned by common law litigation.

CLOSING STATEMENT

Greenhouse Gas Emissions as Public Nuisances

HEIDI M. HURD

In his Closing Statement, Professor Johnston concedes that "traditional" tort suits may be appropriate means of pursuing corrective justice for wrongfully injured parties. But he insists that interstate public nuisance suits for greenhouse gas (GHG) emissions are not traditional tort suits, and because of this, they ought not to serve as vehicles for vindicating the rights of those to whom coal-fired power plants have In this final exchange with my muchexternalized their costs. esteemed colleague, I will consider nine claims that he advances in defense of the thesis that public nuisance suits for GHG emissions are insufficiently like standard tort cases to justify resolution within the courts. I will conclude our debate by contesting each of these claims, making clear that suits for GHG emissions are well within both the doctrinal and theoretical boundaries of the common law of torts. As such, they ought not to be thought "displaced" by Environmental Protection Agency (EPA) rulemaking or congressionally enacted standards, as Professor Johnston has maintained during our exchange and as the Court so ruled in American Electric Power (AEP) v. Connecticut, 131 S. Ct. 2527, 2532 (2011).

First, Professor Johnston argues that "the substantive standard for finding an actionable interstate public nuisance is so amorphous that it would become a license for judicial lawmaking" On this basis, he insists, Congress, rather than the courts, is the appropriate source of GHG emission standards. There are, of course, numerous causes of action in tort law that met with similar complaints upon their emergence and that are well-established grounds for rectification today. Consider the cause of action for the intentional infliction of emotional distress. Inasmuch as all of us give and receive emotional distress all too commonly, courts sought to distinguish actionable conduct by requiring that it be "extreme and outrageous." W. PAGE KEETON, ET AL., PROSSER AND KEETON ON TORTS 61 (5th ed. 1984). That this is a standard as amorphous as any has not been a basis for insisting that judges are beyond their institutional ken in deciding such cases so as to require legislative intervention. And, to take a second example, one could hardly think that the "reasonable person test" of negligence is not amorphous. Unless Professor Johnston seeks to join Jeremy Bentham in defending the far more radical thesis that common law adjudication as a whole is an affront to the rule of law, it would seem difficult for him to maintain that interstate nuisance cases should be stripped from the jurisdiction of the courts and settled by Congress simply because they turn on a standard that, while vague, is no more so than the judgment of the fictional character to whom courts so commonly appeal in negligence cases.

Second, Professor Johnston appears to take the fact that the plaintiffs in AEP v. Connecticut sued for injunctive relief rather than damages as an indication that they were not seeking, or entitled to, the sort of corrective justice that, in my view, is the distinctive mission of tort law. But if a serial wrongdoer is harming me, my rights of redress include making him stop! If someone wrongfully floods my land every year, I will of course sue not just for damages but also for injunctive relief. And if I can anticipate far greater flooding in the future than I have had to endure to date, I might sue for injunctive relief alone. But nothing about the remedy I choose undoes the claim that I am entitled to employ tort law to vindicate my rights against the harmful activities of a neighbor. So the fact that states and the citizens they represent may seek caps on the GHG emissions of the nation's largest coal-fired power plants that will prevent or reduce predicted harms of climate change and pollution does not make their suits something other than tort suits that are eligible for resolution as such.

Third, Professor Johnston appears to believe that, inasmuch as injunctive relief will have a deterrent effect on the behavior of the defendants, it is therefore inherently regulatory, and as such, its mission bleeds into that of Congress and regulatory agencies. It is surely true that if tort law is principally dedicated to using private disputes to set incentives that will deter others from committing wrongs in the future or otherwise engaging in conduct that is socially detrimental, then it has parted ways with the mission of corrective justice and must compete for jurisdictional space with those who would employ codification to this end. But in most tort cases, including AEP v. Connecticut, deterrence is the byproduct of, rather than a substitute for, corrective justice. Parties who understand that they will be held liable in the event that they cause harm to others will typically prefer to prevent that harm than pay compensation. But the fact that tort suits have deterrent side effects does not make tort law's mission regulatory, and it ought not to strip parties who have legitimate grievances of their opportunity to employ such law to redress rights violations.

Fourth, in a somewhat similar vein, Professor Johnston takes public nuisance suits for GHG emissions to be unlike traditional tort suits

in being "explicitly... intended to provoke Congress to enact comprehensive global warming legislation." They are "all about using tort law for the instrumental purposes of regulating and/or provoking leg-He seems to think that the motives of litigants fix islation " whether or not their suits vindicate rights or are a ruse for regulation. But the motives of litigants do not matter a whit to the legitimacy of their causes of action. If the plaintiffs in AEP v. Connecticut could prove that the defendant power plants culpably violated a duty of care that was owed to them, and in so doing in fact and proximately caused legally cognizable harms, then they are owed injunctive relief against future harm and restitution for past harms, irrespective of their motivations for bringing suit. That they might hope that their vindication in tort will motivate agency or legislative action that safeguards others like them from injuries by similar defendants hardly defeats the legitimacy of their use of tort law. To say otherwise would be to suggest that the many early suits that were brought by employees who suffered injury or discrimination while in the workplace were illegitimately adjudicated by the courts, because the plaintiffs who brought such suits surely hoped that lawmakers would ultimately enact occupational safety and health regulations that would better the lives of others who were too fearful to stand up for their rights.

Fifth, Professor Johnston makes reference to the magnitude of the liability that would be at stake if public nuisance suits for GHG emissions were allowed to proceed, citing as evidence the billions of dollars in compensatory damages that were sought by the plaintiffs in Native Village of Kivalina v. ExxonMobil Corp., 663 F. Supp. 2d 863 (N.D. Cal. 2009), and Comer v. Murphy Oil USA, 607 F.3d 1049 (5th Cir. 2010). But why would we reserve tort law only for relatively insignificant harms meriting relatively insignificant damages, while suspending it when wrongdoers culpably cause harm on a grand scale? That seems exactly backwards. The larger the injury, the larger the damages that ought to be paid in compensation—as students of tort law learn from such chestnut cases as In re Polemis & Furness, Withy & Co., [1921] 3 K.B. 560, in which a defendant was held liable for the total destruction of a ship after the defendant's merely careless employees accidentally caused a plank to fall into the ship's hold, causing a spark that ignited petrol vapors. So when damages provably come in the billions, we ought not to declare them too great to be owed.

Sixth, Professor Johnston places considerable weight in both his Opening and Closing Statements on the claim that, inasmuch as "all Americans generate some GHG emissions," it would be wrong "to vest

private individuals and state attorneys general with the power to decide who among us . . . will be held responsible for the alleged harm from such emissions." As he argues, "[c]ommon law damage awards against deep-pocketed or politically attractive out-of-state defendants would substitute for a system of (at least potentially) rational taxation." But the plaintiffs in AEP v. Connecticut, for example, were hardly being arbitrary in their choice of defendants: they sued the largest emitters of carbon dioxide in the nation. While the plaintiffs themselves could be thought to cause GHG emissions of the sort they complained of, none caused emissions at levels anything like those caused by the defendants. The plaintiffs were not suing the defendants because the defendants had deep pockets or were politically attractive; they were suing them because the defendants caused, and could be predicted to cause, more harm to them than plaintiffs had caused, or would reciprocally cause, in return. Inasmuch as plaintiffs are owed corrective justice when others have been provably enriched at their expense, there is no basis for complaining that their suits are unfair just because they might also have sued others, or just because others might have escaped similar suits for similar redress by others in similarly situated circumstances.

Seventh, Professor Johnston fears that public nuisance cases for GHG emissions uniquely threaten the prospect of inconsistent verdicts that will result in "a haphazard, variable, and highly politicized pattern of injunctive relief and damages awards " As he argues, "[t]here is no reason to expect that judges and juries in different jurisdictions will agree on either the costs or benefits of GHG emission reduction," and as such, such suits will invite patchwork results that "bear[] little, if any, relationship to either a fair or efficient approach to reducing national GHG emissions." Perhaps so. But the possibility of inconsistent verdicts is endemic to tort law, and the mechanisms for reducing the costs of such inconsistencies function as well in the context of public nuisance suits as they do generally. We have appellate courts precisely so that we do not whipsaw defendants with contradictory legal rulings; and we have doctrines of collateral estoppel so that we do not whipsaw defendants with contradictory factual findings. Together these mechanisms considerably reduce the degree to which defendants can be threatened with liability that damns them if they do and damns them if they don't.

Eighth, Professor Johnston appears to suggest that in championing the rights of redress on the part of parties who have been, or will be, harmed by anthropogenic climate change I have no account of how Congress or the EPA might play a legitimate role in fixing GHG emission standards. But I have no difficulty agreeing that global warming merits a regulatory solution that will systemically work toward ensuring that none of us exceeds the level of GHG emissions that is our due, given the goal, for example, of returning the atmospheric level of carbon dioxide to 350 parts per million (ppm). While tort law can and should redress unjust enrichment, its perfect success at so doing would simply ensure that none of us emits GHG emissions that are disproportionate to the emissions of others. But such tort suits, even if fully successful, might easily fail to reduce GHG emissions to a level that will save the planet from catastrophic climate change. I thus fully agree that it will likely take bold and broad statutory enactments and agency-issued regulations to guarantee more than the assurance that no one got the better of us as we go to Hell together!

Finally, Professor Johnston suggests that if I concede that regulation of GHG emissions by Congress or the EPA might be in order, I thereby nullify any long-term role for tort law with respect to such emissions. He writes:

For if the regulatory regime were ideal from a corrective-justice point of view—requiring that coal companies internalize all of the harm caused to others by their activities—then it would seem that there would be nothing for tort law to do if the goal of tort law were only to compensate and/or take away ill-gotten gains.

So true! But that is a bit like saying that there would be no need for the criminal justice system if our criminal codes were so perfected that, by themselves, they eliminated criminal wrongdoing altogether. In fact, we can anticipate that people will never cease to indulge temptations to take more than is their due, even when their due is clearly specified-by statute, regulation, or common law. So long as there will be wrongdoers who defy rules that are designed to protect others from injuries, there will be a need for courts to exact compensation for such injuries; for however perfectly Congress and our regulatory agencies specify optimal conduct, such rulemaking bodies do not have adjudicatory powers and therefore cannot adequately redress rule violations. And, of course, we have yet to see Congress or the EPA craft regulations that, if followed, would perfectly insure against the need to achieve corrective justice for those wrongfully harmed by GHG emissions. As illustrated by my previous discussion of the costs externalized by coal-burning power plants, we have a long way to go before our many federal and state regulations perfectly specify all the things that the coal industry, and the industries that depend upon it, must do in order to undo the myriad harms that are caused by coal. Still, at the end of the day, I have no stake in tort law surviving the achievement of human perfection. If everyone ceases to do wrong (thanks, in part, to effective regulation), I will surely grant Professor Johnston his claim that tort law will be out of business. As Grant Gilmore famously observed: "In Heaven there will be no law, and the lion will lie down with the lamb." Grant Gilmore, The Ages of American Law 111 (1977). But until we find ourselves in that happy place, our courts should vigorously vindicate our rights against the climate-changing consequences of corporate greed and political paralysis.

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