2009

Worst Case and the Worst Example: An Agenda for Any Young Lawyer Who Wants to Save the World from Climate Chaos

William H. Rodgers, Jr.
University of Washington School of Law

Anna T. Moritz

THE WORST CASE AND THE WORST EXAMPLE: AN AGENDA FOR ANY YOUNG LAWYER WHO WANTS TO SAVE THE WORLD FROM CLIMATE CHAOS[†]

WILLIAM H. RODGERS, JR.[*] & ANNA T. MORITZ[**]

I. INTRODUCTION

Understand where we are:

> Fish could vanish from huge stretches of the ocean for tens of thousands of years unless we drastically reduce our carbon emissions.[1]

[†] *See* OLIVER MORTON, EATING THE SUN: HOW PLANTS POWER THE PLANET 357–58 (2008) (preferring "carbon /climate crisis" to "climate chaos" and "climate change").

* Stimson Bullitt Professor of Environmental Law, University of Washington School of Law. Appreciation is expressed to my co-editors, Jeni Barcelos, Anna T. Moritz, and Michael Robinson-Dorn, of the forthcoming CLIMATE CHANGE: A READER (William H. Rodgers, Jr., J. Barcelos, Anna T. Moritz, M. Robinson-Dorn et al. eds., forthcoming 2010) [hereinafter CLIMATE CHANGE READER]. The authors can be reached at whr@u.washington.edu.

** J.D., University of Washington School of Law.

[1] Andy Coghlan, *Global Warming Could Suffocate the Sea*, NEW SCIENTIST, Jan. 31, 2009, at 13, *available at* http://www.newscientist.com/article/mg20126935.100-global-warming-could-suffocate-the-sea.html.

> In the worst-case scenario, average ocean oxygen levels will fall by up to 40 percent, and there will be a 20-fold expansion in the area of "dead zones" . . . .[2]
>
> . . . The cream of the UK climate science community sat in stunned silence as [Kevin] Anderson[3] pointed out that carbon emissions since 2000 have risen much faster than anyone thought possible, driven mainly by the coal-fuelled economic boom in the developing world. So much extra pollution is being pumped out, he said, that most of the climate targets debated by politicians and campaigners are fanciful at best, and "dangerously misguided" at worst.
>
> . . . he said it was "improbable" that levels could now be restricted to 650 parts per million (ppm).[4]
>
> The climate scientists now say we need to stop the growth in worldwide carbon emissions before 2020, even for a compromise goal that will melt much of Greenland, flood major coastal cities, and make a third of all species extinct. (Some compromise). Delay will take us into the territory of extinction of half of all species, failing crops, famines, mass migrations, and genocidal wars.[5]

II. THE WAY FOR YOU TO GO

Wherever you turn with regard to climate change, you'll hear about the worst, and the worst of the worst, and the worst that will happen after that.[6] Young lawyers should put themselves in the right frame of mind to tackle all these "worsts" that are headed our way. In the interest of

---

[2] *Id.* (discussing a computer-model study by Gary Shaffer of the University of Copenhagen, Denmark and colleagues).

[3] An expert at the Tyndall Centre for Climate Change Research at Manchester University.

[4] David Adam, *Too Late: Why Scientists Say We Should Expect the Worst*, GUARDIAN (London), Dec. 9, 2008, at 22, *available at* http://www.guardian.co.uk/environment/2008/dec/09/poznan-copenhagen-global-warming-targets-climate-change.

[5] WILLIAM H. CALVIN, GLOBAL FEVER: HOW TO TREAT CLIMATE CHANGE 4 (2008).

[6] *E.g.*, Steven Schneider, *The Worst-Case Scenario*, 458 NATURE 1104 (2009) (reviewing the changes that would occur at 1000 ppm CO_2); Nicholas Stern, *Decision Time*, NEW SCIENTIST, Jan. 24, 2008, at 26 ("[I]t has become apparent that the risks and potential costs are even greater than we originally recognized"); *see also* Gaia Vince, *One Last Chance to Save Mankind*, NEW SCIENTIST, Jan. 24, 2009, at 31, *available at* http://www.newscientist.com/article/mg20126921.500-one-last-chance-to-save-mankind.html?.

keeping it simple, we would suggest a personal strategy for every young lawyer that would entail: (I) Honoring Knowledge and Learning; (II) Protecting Your Institutions and Loving Your Country; (III) Planning and Conducting Your Personal War on Bad Law; and (IV) Rejecting Defeatism and Impossibility Theorems. Let's consider these strategies in order.

III. HONOR KNOWLEDGE AND LEARNING

Who could be against knowledge and learning, you might say? Actually, many people. Sometimes, it seems, most of them. At an 1898 Declaration of a Cattlemen's meeting in West Texas, it was announced: "Resolved, that none of us know, or care to know, anything about grasses, native or otherwise, outside the fact that for the present there are lots of them, the best on record, and we are after getting the most out of them while they last."[7]

This quotation is a sharp and explicit warning that knowledge, learning, and the pursuit of truth are not some universal figures drifting unmolested through time. The cattlemen's resolution has a certain raw integrity to it: we would rather not know. There can be value in deliberate ignorance. People can be too busy to know. Or too stressed. Or too determined. Or too invested in some other cooked-up belief system.[8]

Law students know well many of the stresses and strains the United States legal system puts on the flow of knowledge, learning, and the "pursuit of truth." "Climate change" is a useful case for you to study.

You know the drill and have heard it many times.

The U.S. legal adversarial system, as typically taught, places a premium on putting the clients' "best foot" forward.[9] This transforms

---

[7] PAUL SHEPARD, NATURE AND MADNESS 1–2 (1982).

[8] *See* CAROL TAVRIS & ELLIOT ARONSON, MISTAKES WERE MADE (BUT NOT BY *ME*): WHY WE JUSTIFY FOOLISH BELIEFS, BAD DECISIONS, AND HURTFUL ACTS 13-23 (2007).

[9] *See generally* Duncan Kennedy, *Legal Education and the Reproduction of Hierarchy*, 32 J. LEGAL EDUC. 591 (1982), *available at* http://duncankennedy.net/documents/Photo articles/Legal Education and the Reproduction of Hierarchy_J. Leg. Ed.pdf (critiquing the current legal educational system and its creation of a legal hierarchy).

attorneys into a broad academy of the controlling and designing.[10] The good news is that adversaries on both sides are doing the same thing. Out of this presumed "clash" of competing interests, something approximating the "truth" will emerge. Not a bad system we tell ourselves—even when we recognize that attorneys are quite adroit at avoiding "clashes."

But consider how knowledge and learning (call it "good science") might fare in a system such as this. Would you hire the expert most favorable to your cause for a proceeding in a municipal court? Of course you would. Would you extend the practice to the world court? Of course you would. Would you put your "man" on the advisory committee that will have input on your clients' case? If you could, of course you would.[11]

Would these controlling practices reach the Intergovernmental Panel on Climate Change (IPCC)[12] whose repeated and disturbing utterances are not good news for corporate clients in the fossil-fuel business?[13] Of course they would. Would the attorneys for the fossil-fuel business try to rewrite the reports, replace the IPCC chief executive, and bring shame and scorn down on the authors of these damning utterances? Of course they would—and did.[14]

Would you as a resourceful attorney use all legal means to stem the flow of "dangerous expertise" that could spell doom for your clients? Of course you would. Does this include moving to strike testimony of

---

[10] *Id.*

[11] On the stacking of advisory committee, see WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW IN INDIAN COUNTRY § 1:11 (2005).

[12] *See* Intergovernmental Panel on Climate Change, *About IPCC*, http://www1.ipcc.ch/about/index.htm (last visited May 5, 2009). The IPCC "was established to provide the decision-makers and others interested in climate change with an objective source of information about climate change." *See also* Intergovernmental Panel on Climate Change, About the IPCC, The IPCC Working Group I, http://www1.ipcc.ch/about/working-group1.htm (last visited May 5, 2009); Intergovernmental Panel on Climate Change, About the IPCC, The IPCC Working Group II, http://www1.ipcc.ch/about/working-group2.htm (last visited May 5, 2009); Intergovernmental Panel on Climate Change, About the IPCC, The IPCC Working Group III, http://www1.ipcc.ch/about/working-group3.htm (last visited May 5, 2009).

[13] *See* TOM WILBANKS ET AL., CLIMATE CHANGE 2007: IMPACTS, ADAPTATION, AND VULNERABILITY 366–67 (2007), *available at* http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter7.pdf.

[14] For an excellent background, see BERT BOLIN, A HISTORY OF THE SCIENCE AND POLITICS OF CLIMATE CHANGE: THE ROLE OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (2007).

"disfavored" experts under the familiar *Daubert* "gatekeeping" cases?[15] Of course it does. For example, could you move to strike the "worst-case" testimony (about "tipping points") from one of the world's leading experts on climate change? Of course you could. In *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, defense attorneys confidently moved to strike Jim Hansen's "tipping point" testimony; they lost this procedural skirmish.[16] But the sobering thought is that they could have won.[17]

As an attorney, would you try to counter the bad news and "worst cases" coming from the IPCC? If you could afford it, of course you would. Would you go so far as to promote an entire system of counter-knowledge?[18] It seems that some would and some did.[19] The "facts" of the overall climate change case are frightening things.[20] There is bad economic news in this "worst case" outpouring on the consequences of climate change.[21] Whatever the motivations, the information campaign to deny, belittle, mock, and skew the knowledge of climate change was—

---

[15] Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie, 508 F. Supp. 2d 295, 316 (D. Vt. 2007) (Sessions, C.J.) (discussing a motion to strike the "tipping point" testimony of Dr. James Hansen, Director of the Goddard Institute for Space Studies).

[16] *Id.* at 313–14.

[17] *See* Kimberly A. Jackson, Daubert v. Merrell Dow: *Missed Opportunity*, 50 FOOD & DRUG L.J. 71, 75 (1995).

[18] *Compare* DAMIAN THOMPSON, COUNTERKNOWLDEGE: HOW WE SURRENDERED TO CONSPIRACY THEORIES, QUACK MEDICINE, BOGUS SCIENCE, AND FAKE HISTORY 1 (2008) ("The essence of counter-knowledge is that it purports to be knowledge but is *not* knowledge. Its claims can be shown to be untrue, either because there are facts to contradict them or because there is no evidence to support them. It misrepresents reality (deliberately or otherwise) by presenting non-facts as facts." (emphasis added)), *with* SUSAN JACOBY, THE AGE OF AMERICAN UNREASON: DUMBING DOWN AND THE FUTURE OF DEMOCRACY 61 (2008) (discussing the disturbing presence of ignorance and anti-rationalism prevalent in the American democracy today).

[19] Andrew C. Revkin, *On Climate Issue, Industry Ignored Its Scientists*, N.Y. TIMES, Apr. 24, 2009, at A1. The original document from industry scientists that is referenced in the article can be accessed at http://documents/nytimes.com/global-climate-coalition-aiam-climate-change-primer#p=1 (last visited June 10, 2009).

[20] *See generally* NICOLAS STERN, THE ECONOMICS OF CLIMATE CHANGE: THE STERN REVIEW 1 (2007) (discussing the economic impact of global climate change).

[21] *See id.*

and is—an impressive one.[22] Many believe it is completely dishonorable.[23] Is it illegal?

Attorneys representing the Village of Kivalina think so.[24] They have added a "conspiracy" count to their complaint, charging common-law torts through the vehicle of the release of greenhouse gases that have caused flooding which will oblige the villagers to move.[25] Here are the particular allegations, which law students can study as the case unfolds over time:

> 41. Exxon Mobil has taken the lead in the industry efforts to disseminate false information about global warming. . . .[26]
>
> . . . .
>
> 189. There has been a long campaign by power, coal, and oil companies to mislead the public about the science of global warming . . . .[27]
>
> . . . .
>
> 190. The industries have . . . formed and used front groups, fake citizen organizations, and bogus scientific bodies, such as the Global Climate Coalition ("GCC"), the Greening Earth Society, the George C. Marshall Institute, and the Cooler Heads

---

[22] *See generally* A.W. Harris, *Derogating the Precautionary Principle*, 19 VILL. ENVTL. L.J. 1, 11 (2008) (discussing the Intergovernmental Panel on Climate Change's view of the uncertainties that exist regarding the effects of and precautionary measures necessary for climate change). *See also* Michael Crichton, Speech at the National Press Club: The Case for Skepticism on Global Warming (Jan. 25, 2005), *available at* http://www.crichton-official.com/speech-ourenvironmentalfuture.html.

[23] *See* WILLIAM F. RUDDIMAN, PLOWS, PLAGUES AND PETROLEUM: HOW HUMANS TOOK CONTROL OF CLIMATE 189 (2007) ("I know of no precedent in science for the kind of day-to-day onslaughts and perversions of basic science now occurring in newsletters and websites from interest groups. These attacks have more in common with the seamier aspects of politics than with the normal methods of science. Both the environmental and (especially) the industry extremists should leave the scientific process alone.").

[24] Complaint at 47, Native Village of Kivalina v. Exxon Mobil Corp., No. CV 08-1138-SBA, 2008 WL 2951742 (C.N.D. Cal. 2008), *available at* http://www.climatelaw.org/cases/country/us/kivalina/KivalinaComplaint.pdf. For early returns, see Native Village of Kivalina v. Exxon Mobile Corp., 663 F. Supp. 2d 863 (N.D. Cal. 2009).

[25] *Id.* at 62–65.

[26] *Id.* at 9.

[27] *Id.* at 47.

Coalition. The most active company in such efforts has been defendant Exxon Mobil.[28]

. . . .

192-93. One of the earliest and most prominent front groups has been The Advancement of Sound Science Coalition (TASSC). . . . TASSC has funded a web site, JunkScience.com, which was founded by a public relations consultant working at TASSC. . . . Exxon Mobil has funded TASSC. The Orwellian use of the terms 'junk science' and 'sound science' were adopted by the power, coal and oil industries—including some of the Conspiracy Defendants—to subvert the global warming debate.[29]

. . . .

197-204. The Global Climate Coalition [founded in 1989] met at a variety of locations, including the offices of Exxon. [Among its works, it] distributed a video to hundreds of journalists claiming that increased levels of carbon dioxide will increase crop production and help feed the hungry people of the world.[30]

. . . .

213. On April 10, 1996, the George C. Marshall Institute, as part of the Conspiracy Defendants' disinformation campaign, issued a report falsely claiming that peer-reviewed studies indicated temperature increases were consistent with 'natural climate change.'[31]

214. Since Exxon Mobil began to support its efforts, the Marshall Institute has served as a clearinghouse for global warming contrarians, conducting round-table events and producing frequent publications. The Marshall Institute has been touting its new book, SHATTERED CONSENSUS: THE TRUE STATE

---

[28] *Id.*
[29] *Id.* at 48.
[30] Complaint, *supra* note 24, at 49–50.
[31] *Id.* at 53.

> OF GLOBAL WARMING, edited by long-time contrarian Patrick Michaels. Michaels has, over the past several years, been affiliated with at least ten organizations funded by Exxon Mobil.[32]
>
> . . . .
>
> 231. Relying on tactics developed by the tobacco industry to discredit health risks associated with tobacco use, Exxon Mobil has channeled $16 million over the 1998 to 2005 period to 42 organizations that promote disinformation on global warming.[33]
>
> . . . .
>
> 234. Rather than meet its social and legal responsibilities, Exxon Mobil engaged in a multi-faceted attack on global warming which included exploiting science, denying the consensus on global warming, running misleading advertising denying the existence of global warming or its causes, and funding organizations who attacked global warming on these bases and / or the factors causing global warming.[34]
>
> 235. Exxon Mobil has funded and continues to fund groups like the George Marshall Institute, the Frazier Institute, and Free Enterprise to prop up discredited studies and to disseminate misleading information to downplay the severity of global climate change.[35]
>
> . . . .
>
> 246. Exxon Mobil marshaled its considerable resources [to undermine the 2004 Arctic Climate Impact Assessment] that combined the work of some 300 scientists and was four years in the making.[36]

There is also substantial evidence of how the executive branch in the George W. Bush administration (including the Council on Environmental Quality) suppressed, rewrote, and modified various studies and initiatives

---

[32] *Id.*
[33] *Id.* at 56–57.
[34] *Id.* at 57.
[35] *Id.*
[36] Complaint, *supra* note 24, at 60.

on climate change.[37] At times, it may not be easy to distinguish "knowledge and learning" from falsehood and deceit. But there are indicators and there are sources.[38] And you can always fall back on Law School Lesson No. 1: Out of the Clash of Competing Interests, the Truth Can Emerge. Note the two fundamental components: a "clash" and "competing" interests. If both are not present, beware the danger to "Knowledge and Learning."

And let's not exempt the courts from this discussion. An unspoken tenet of the adversarial "clash" is that it will occur most frequently before an independent and impartial judiciary that is willing to take an active role in the search for knowledge and learning. But too often the courts sound like the west Texas cattlemen of 1898.[39] They do not know the science of the matter and do not care to know. The U.S. Court of Appeals for the District of Columbia bungled the climate change science so thoroughly in *Massachusetts v. EPA*[40] that it inspired a cadre of world-class climate scientists to try to set things right in the United States Supreme Court.[41] The strategy worked, for the moment at least.[42]

But of course the high court itself displays no abstract commitment to Knowledge and Learning. Worse, several of the Justices appear to have a complete contempt for science. Do we misread *Bennett v. Spear*[43] as identifying science as any truth about physical reality that does not

---

[37] CLIMATE CHANGE READER, *supra* note *.

[38] *See* THOMAS O. MCGARITY & WENDY E. WAGNER, BENDING SCIENCE: HOW SPECIAL INTERESTS CORRUPT PUBLIC HEALTH RESEARCH (2008); Holly Doremus, *Scientific and Political Integrity in Environmental Policy*, 86 TEX. L. REV. 1601 (2008); Holly Doremus, *The Purposes, Effects, and Future of the Endangered Species Act's Best Available Science Mandate*, 34 ENVTL. L. 397 (2004) (from The Endangered Species Act Turns 30, a symposium at Lewis & Clark Law School, October 23-24, 2003).

[39] *See supra* note 7 and accompanying text.

[40] Massachusetts v. EPA, 415 F.3d 50 (D.C. Cir. 2005) (giving an opinion by Judge Randolph with noticeably questionable scientific analysis and reasoning), *aff'd en banc* 433 F.3d 66 (D.C. Cir. 2005) (affirming Judge Randolph's questionable scientific analysis and reasoning).

[41] Personal conversation with David Battisti, Professor of Atmospheric Sciences, Univ. of Wash. (Mar. 2009) (organizer and co-author of the Brief of *Amici Curiae* Climate Scientists, *Massachusetts v. EPA*, 549 U.S. 497 (2007) (No. 05-1120)).

[42] Massachusetts v. EPA, 549 U.S. 497 (2007).

[43] Bennett v. Spear, 520 U.S. 154 (1997).

lead to an economic dislocation?[44] We'll put this debate (which is no debate) into the footnotes.[45] Certainly you'll agree with us that a science so defined is shockingly corrupt. Perhaps all we need to know is that the "science" of climate change (and indeed the "science" of any other topic) is necessarily about more than "science" when the law is in play.

IV. PROTECT YOUR INSTITUTIONS AND LOVE YOUR COUNTRY

Our inadequate response to climate change hints at something amiss with our institutions.[46] Takeover by bad influences, they say. How do we counter this? We're only students of law. One way is to encourage a firm, skeptical, and informed judicial review.[47]

A. Protect Your Institutions

Let us urge you to protect your institutions and reacquaint yourselves with the legitimacy of judicial review and the powers of positive oversight. An independent, skeptical and fearless judiciary is a priceless asset and we need it in all corners of the United States.[48]

What sorts of things are they saying about the "takeover" of our institutions by "bad influences"? Who would be trying to undermine our own institutions and hamper them in their pursuit of solutions to climate change or any other public issue for that matter? Those with an economic interest, for one. There is recent talk of "government by cliques,

---

[44] *Id.* at 176.

[45] *See* Noah D. Hall, *Political Externalities, Federalism, and a Proposal for an Interstate Environmental Impact Assessment Policy*, 32 HARV. ENVTL. L. REV. 49, 65 n.100 (2008) (discussing Justice Scalia's celebrated confusion between the "stratosphere" and the "troposphere" during the oral argument in *Massachusetts v. EPA*). Does the judicial difficulty come down to choosing between deference to an obviously confused Judge Randolph or an obviously conniving EPA? We do not understand why lawyers (and judges) take conspicuous delight in admitting to complete (and comfortable) ignorance on matters of science. *See generally* David L. Faigman, *The Role of the Judge in the Twenty-First Century: Judges as "Amateur Scientists"*, 86 B.U. L. REV. 1207, 1208–12 (2006) (discussing the willful avoidance of scientific knowledge and the overall lack of scientific training and education within the judicial system). From the authors' perspective, we have never heard a lawyer or a judge admitting to an incapacity to read.

[46] DAVID SHEARMAN & JOSEPH WAYNE SMITH, THE CLIMATE CHANGE CHALLENGE AND THE FAILURE OF DEMOCRACY 2 (2007).

[47] U.S. CONST. art. III, § 2. *See* Marbury v. Madison, 5 U.S. 137 (1803).

[48] *See* Ruth Bader Ginsburg, *Judicial Independence: The Situation of the U.S. Federal Judiciary*, 85 NEB. L. REV. 1 (2006).

operating in secret, with not even membership known outside."[49] This sort of conspiratorial talk usually mentions the Dick Cheney Task Force on Energy Policy that appears to be an unsavory "takeover" of public policy by private interests, though it did not arouse the disapproval of the U.S. Supreme Court.[50]

But this idea of "takeover" by law has a somewhat new and ugly dimension associated with powerful economic interests.[51] "Defensive preemption" is the term commonly extended to legal strikes that displace one body of law with another.[52] By way of example, healthy and vigorous state institutions can be obliterated at a stroke by unhealthy and shoddy federal moves.[53]

For instance, whatever happened to the usury laws, some might ask?[54]

The adversarial legal system can take over laws, rules, and agencies with the same enthusiasm it takes over the "facts of the case."[55] Think of it. As an attorney, would you rather win one case or one hundred just like it? Doesn't wholesale beat retail, not once but every time? So if you could, wouldn't you pass your own law or impose your own rule? And

---

[49] JAMES K. GALBRAITH, THE PREDATOR STATE: HOW CONSERVATIVES ABANDONED THE FREE MARKET AND WHY LIBERALS SHOULD TOO 144 (2008).

[50] Cheney v. U.S. Dist. Court for D.C., 542 U.S. 367 (2004), *discussed in* William H. Rodgers, Jr., *The Tenth U.S. Supreme Court Justice (Crazy Horse, J.) and Dissents Not Written—The Environmental Term of 2003-2004*, 34 ENVTL. L. REPORTER 11033 (2004). There has been an intervening election, of course. *See* John Vidal, *Obama Victory Signals Rebirth of U.S. Environmental Policy*, GUARDIAN (London), Nov. 5, 2008, *available at* http://www.guardian.co.uk/environment/2008/nov/05/climatechange-carbonemissions.

[51] GALBRAITH, *supra* note 49.

[52] *See, e.g.*, J.R. DeShazo & Jody Freeman, *Timing and Form of Federal Regulation: The Case of Climate Change*, 155 U. PA. L. REV. 1499, 1512–16 (2007).

[53] *Id.* at 1505–07.

[54] Answer: State usury laws were preempted by The Depository Institutions Deregulatory and Monetary Control Act of 1980 §501, 12 U.S.C. 1735f-7 (2008). *See* ROBERT J. SHILLER, THE SUBPRIME SOLUTION: HOW TODAY'S GLOBAL FINANCIAL CRISIS HAPPENED, AND WHAT TO DO ABOUT IT 51 (2008).

[55] *See* Carrie Menkel-Meadow, *The Trouble with the Adversary System in a Postmodern, Multicultural World*, 38 WM. & MARY L. REV. 5, 13 (1996) (arguing that a contested presentation of the facts will "best reveal the truth").

wouldn't you put your own compatriot in a key position in the agency?[56] Indeed, wouldn't you put all of your people into all of the agencies? Government by lobbyist, it could be called, and the G. W. Bush administration was accused of it.[57]

This phenomenon of private takeovers of government function has been called many things—privatization, capture, undue influence, corruption.[58] James K. Galbraith calls it the "Predator State," although the state appears to be the prey in his scheme until it is transformed into the wolf in sheep's clothing by the invisible hands of corrupt influence:[59]

> It is a coalition of relentless opponents of the regulatory framework on which public purpose depends, with enterprises whose major lines of business compete with or encroach on the principal public functions of the enduring New Deal. It is a coalition, in other words, that seeks to control the state partly in order to prevent the assertion of public purpose and partly to poach on the lines of activity that past public purpose has established. They are firms that have no intrinsic loyalty to any country. They operate as a rule on a transnational basis, and naturally come to view the goals and objectives of each society in which they work as just another set of business conditions, more or less inimical to the free pursuit of profit. They assuredly do not adopt any of society's goals as their own, and that includes the goals that may be decided on, from time to time, by their country of origin, the United States. As an ideological matter, it is fair to say that the very concept of public purpose is

---

[56] *See* NOMI PRINS, OTHER PEOPLE'S MONEY: THE CORPORATE MUGGING OF AMERICA 4 (2004).

[57] JOHN W. DEAN, WORSE THAN WATERGATE: THE SECRET PRESIDENCY OF GEORGE W. BUSH (2004). *See also* GALBRAITH, *supra* note 49, at 131 ("The administration, following the installation of George W. Bush, became little more than an alliance of representatives from the regulated sectors—mining, oil, media, pharmaceuticals, corporate agriculture—seeking to bring the regulatory system entirely to heel."); David E. Adelman & Kirsten H. Engel, *Adaptive Federalism: The Case Against Reallocating Environmental Regulatory Authority*, 92 MINN. L. REV. 1796, 1833 (2008) (condemning "ceiling preemption" that enables "powerful business interest groups" to "undercut diversity and innovation in environmental policymaking").

[58] WILLIAM H. RODGERS, JR., CORPORATE COUNTRY: A STATE SHAPED TO SUIT TECHNOLOGY 240 (1974).

[59] GALBRAITH, *supra* note 49, at 144.

> alien to, and denied by, the leaders and the operatives of this coalition.[60]

Nobody has ever believed that U.S. government agencies and their thousands of employees march in unison to execute the public trust.[61] These agencies hear many voices and are pulled in many directions as they form their policy conclusions and stake out the dimensions of their plans.[62] Nonetheless, they are robust—and even willful—in their clumsy but sometimes powerful ways.[63]

But the new world—and, in particular, this new issue called "climate change"—has subjected the agencies to novel selective forces that can be summed up as "corruption."[64] A "corrupt" process is one that works to "destroy or subvert the honesty or integrity" of the enterprise.[65] At its most blatant this corruption may extend to the desire of those insinuated into an agency to see its demise. For instance, it is certainly conceivable that an institution—including an agency of the federal government—can be deliberately "managed" into failure.[66] In such a context, creation of dysfunction is an asset, plummeting staff morale is a credit, and invention of unworkable procedure is a new value.[67] We do not know whether FEMA's response to Katrina can be explained this way. It's quite possible.[68] Environmental programs, in particular, run a risk of

---

[60] *Id.*

[61] For an interesting discussion of the government self-regulating through the courts, *see. e.g.*, Michael Herz, *United States v. United States: When Can the Federal Government Sue Itself?*, 32 WM. & MARY L. REV. 893, 894–99 (1991). For a scathing review of administrative agencies dereliction of the public interest, see Martin Halstuk & Charles Davis, *The Public Interest Be Damned: Lower Courts Treatment of the Reporters Committee "Central Purpose" Reformulation*, 54 ADMIN. L. REV. 983, 985-987 (2002).

[62] Herz, *supra* note 61, at 895–986.

[63] *Id.*

[64] *See, e. g.*, Complaint, *supra* note 24, at 57.

[65] AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 327 (4th ed. 2000), *available at* http://www.bartleby.com/61/27/C0662700.html (defining "corrupt").

[66] *See* Mirth White, Note, *Can Congress Draft a Statute Which Forces Federal Facilities to Comply with Environmental Laws in Light of the Holding in* U.S. Dep't of Energy v. Ohio?, 15 WHITTIER L. REV. 203, 230 (1994).

[67] *See* GALBRAITH, *supra* note 49.

[68] *Compare id.* at xi (saying Hurricane Katrina, like the Chernobyl accident, was "a disaster that exposed and laid bare the fallacies of an entire governing creed"), *with id.* at xii–xiii

being "managed to failure" because they are unwelcome intruders among aggressive managers with contrary worldviews.[69]

Scarcely noticed in passing is the disappearance of what we will call the "fair play" assumption in the administration of the U.S. environmental laws.[70] By this we mean that all parties would accept the goals as prescribed by Congress, quarreling only over means.[71] Under "fair play," we all want to save the polar bear; the only question is how.[72] The Statutes at Large, of course, are brimming with environmental goals and are often quite explicit on means.[73] But what happens when a manager arrives with a radical agenda of repudiation of goals, means, and all plans and methodologies for achieving them? What happens when the manager actively seeks to undermine the legislative goals and disrupt administrative compliance? What happens when failure becomes the principal criterion of success? Deliberate sabotage is a new phenomenon.[74] It should be as welcome to administrative regimes as it would be in armies who hope to lose, seek defeat, and try to squander resources.

Unfortunately, the rise of executive sabotage has coincided with the political selection of a federal judiciary that is trained in caution.[75] Presumptions of regularity are freely extended to bureaucratic misbehavior.[76] Deference is given to scandalous counter-knowledge on the strength of an "expertise" that is nonexistent.[77] Tangled procedures are honored on the spurious grounds that the agency "knows its own

---

("Katrina, and especially the aftermath of the disaster, . . . illustrated a second and more serious sort of rot in the system. This I will call *predation*: the systematic abuse of public institutions for private profit or, equivalently, the systematic undermining of public protections for the benefit of private clients. The deformation of the Federal Emergency Management Agency into a dumping ground for cronies under the government of George W. Bush—"Heckuva job, Brownie"—captured the essence of this phenomenon. But so too does the practice of turning regulatory agencies over to business lobbies.").

[69] *See supra* note 66 and accompanying text.

[70] *See* Thomas O. McGarity, *Regulatory Analysis and Regulatory Reform*, 65 TEX. L. REV. 1243, 1260 (1987).

[71] *Id.*

[72] *Id.*

[73] *See, e.g.*, 15 U.S.C. § 4728 (2006); 16 U.S.C. §1131 (2006); 42 U.S.C. §4331 (2006).

[74] *See generally* GALBRAITH, *supra* note 49, at xii–xiii.

[75] *See generally* JEFFERY TOOBIN, THE NINE 2–4 (2007) (suggesting that the Court is of late steered by moderate judges with "cautious instincts").

[76] *See* Kai Raustiala, *The "Participatory Revolution" in International Environmental Law*, 21 HARV. ENVTL. L. REV. 537, 562 (1997).

[77] *Id.*

business," although the unspoken purpose is to put itself out of business.[78] Courts who opt for these aggressive forms of non-review should answer for it. This is a research agenda that beckons.

It is true also that the glorious judicial review that we are urging upon you has been haltered and hampered by doctrinal inventions suitable for the purpose.[79] Most conspicuous among these is the invention of "standing" barriers, which offer a constitutionalized hindrance to those so rash as to quarrel with perversion of science and destruction of nature unsubtly disguised as federal policy.[80]

To the law students, we would say these "standing" barriers were swept away once two generations ago—and most of the heavy lifting was done by law students.[81]

Despite significant inertial hindrances, judicial review is alive and well today, and it is often provoked by the bad science and political stresses so common to serious environmental conflict.[82] For the law students, we want to point to some successes of judicial review and not simply excoriate the failures. Consider:

- Case one. Cynical agency staffers are unfazed even by losses in the courts. No one fears the customary "remand." Get caught with your

---

[78] David Barnhizer, *Waking from Sustainability's "Impossible Dream": The Decisionmaking Realities of Business and Government*, 18 GEO. INT'L ENVTL. L. REV. 595, 667 (2006) (discussing how governmental agencies use structure and policy to self-sabotage).

[79] *See* Sanford N. Caust-Ellenbogen, *Blank Checks: Restoring the Balance of Powers in the Post-*Chevron *Era*, 32 B.C. L. REV. 757, 812 (1991) (arguing in favor of judicial review as constitutionally fundamental).

[80] Summers v. Earth Island Inst., 129 S. Ct. 1142, (2009) (5-4 decision) (Scalia, J.) (holding that a deprivation of a procedural right with no particularized allegations of concrete injury is insufficient to establish standing).

[81] The tale is told (by one of the students!) by NEIL THOMAS PROTO, TO A HIGH COURT: THE TUMULT AND CHOICES THAT LED TO *UNITED STATES OF AMERICA V. SCRAP* (2006). In *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669 (1973), a group of five law students were deemed to have standing by Justice Stewart (writing for the majority) because they had "suffered economic, recreational and aesthetic harm directly as a result of the adverse environmental impact of the railroad freight structure." *Id.* at 678.

[82] *See generally* Thomas O. McGarity, *Our Science Is Sound Science and Their Science Is Junk Science: Science-Based Strategies for Avoiding Accountability and Responsibility for Risk-Producing Products and Activities*, 52 U. KAN. L. REV. 897 (2004) (arguing that industries employ science as part of a coordinated strategy to avoid regulatory responsibility).

hand in the cookie jar with what result? The case is sent back to you with instructions to remove the hand from the cookie jar. It doesn't work with five-year-olds, and it doesn't work with administrative agencies.

Is there any law beyond remand? There was in *Earth Island Institute v. Hogarth*,[83] where Judge Mary M. Schroeder invalidated the Secretary's finding that the deployment and encirclement of dolphins with purse seine nets in the tuna fishery was having no adverse impact on depleted dolphin stocks in the Eastern Tropical Pacific Ocean.[84] The court made clear that this was a politics-driven decision,[85] that a study that Congress called for could not be side-stepped by fakery and alibi,[86] and that there is an administrative price to pay for a tactic of noncompliance.[87] The court stopped short of adopting the serious directives of District Judge Thelton E. Henderson,[88] but the instructions on remand at least reintroduced the notion that courts have duties to compel compliance from administrative agencies.[89]

- Case two. A sordid campaign to corrupt the science to the detriment of endangered species was brought to light by The Honorable B. Lynn Winmill, Idaho's Chief District Judge, in the case of *Western Watersheds Project v. U.S. Forest Service*.[90] This was a successful challenge to the rejection of a petition to list the greater sage-grouse

---

[83] 484 F.3d 1123, *amended* 494 F.3d 757 (9th Cir. 2007) (modifying the part of the opinion we praise and substitutes: "The label of 'dolphin safe' will continue to signify that the tuna was harvested in compliance with the requirements of 6 U.S.C. § 1385.").

[84] *Earth Island*, 484 F.3d at 1135–36.

[85] *Id.* at 1134–35. The district court had found a "compelling portrait of political meddling." The court of appeals agreed, finding that the endeavor was "improperly influenced by political concerns." 484 F.3d. at 1134–35.

[86] *See id.* at 1131 ("There is no basis for the Secretary's position that Congress required a scientific study upon which an important environmental determination would turn, but did not demand reliable results from that study.").

[87] *See id.* at 1135 ("We agree with the district court that the government's intransigence in following Congress's mandate renders this case one of the rare circumstances where generic remand is not appropriate.").

[88] *See id.* at 1136 (declining to adopt the district court's further orders that NOAA not allow tuna products to be sold in the U.S. as dolphin-safe if the tuna were caught with purse-seine nets and to direct all employees who know of impermissible labeling to notify appropriate enforcement agencies).

[89] *See id.* at 1135–37 (holding that vacating a Final Finding by a Secretary is appropriate in circumstances where a remand is not appropriate); W. Watersheds Project v. U.S. Forest Serv., 535 F. Supp. 2d 1173, 1175–76 (D. Idaho 2007).

[90] 535 F. Supp. 2d at 1173.

under the ESA.[91] But Judge Winmill identified a deeper corruption-of-process within the case:[92]

> [T]he FWS decision was tainted by the inexcusable conduct of one of its own executives. Julie MacDonald, a Deputy Assistant Secretary who was neither a scientist nor a sage-grouse expert, had a well-documented history of intervening in the listing process to ensure that the "best science" supported a decision not to list the species. Her tactics included everything from editing scientific conclusions to intimidating FWS staffers. Her extensive involvement in the sage-grouse listing decision process taints the FWS's decision and requires a reconsideration without her involvement.[93]

Judge Winmill added these thoughts:[94]

> MacDonald had extensive involvement in the sage-grouse listing decision, used her intimidation tactics in this case, and altered the "best science" to fit a "not-warranted decision."[95]

This matter of science-twisting in the ESA process has spiraled into a full-scale investigation.[96] It affords revelations about how administrative buccaneers cover their legal tracks: They bring their own lawyers with them. Or they do it without lawyers:[97]

> The Portland Assistant Regional Solicitor stated that he has conducted approximately 15 [Endangered Species and Critical Habitat Designations] legal reviews and that the administrative

---

[91] *Id.*
[92] *Id.* at 1176.
[93] *Id.*
[94] *Id.* at 1188.
[95] *W. Watersheds Project*, 535 F. Supp. 2d at 1188 (citing Ctr. for Biological Diversity v. Fish and Wildlife Serv , 2005 WL 2000928 (N.D. Cal. 2005)) (another judicial set aside to repair a MacDonald "irregularity").
[96] *See* OFFICE OF INSPECTOR GEN., U.S. DEP'T OF THE INTERIOR, INVESTIGATIVE REPORT ON ALLEGATIONS AGAINST JULIE MACDONALD, DEPUTY ASSISTANT SEC'Y, FISH, WILDLIFE & PARKS, *available at* http://wyden.senate.gov/DOI_IG_Report.pdf (last visited May 12, 2009) (investigation of Julie MacDonald by the Office of Inspector General, Department of Interior, after receiving complaints about illegal and unethical behavior).
[97] *See id.* (emphasis added).

> record for these reviews generally consists of factual support, scientific data, public comments and peer review. When asked why he does not generally surname [these reviews], *the Assistant Regional Solicitor commented he has not surnamed a document in six years due to the legal insufficiency of the documents. He states that he looks at the rule, the rationale within the rule, past judicial decisions, whether it is factually supported, and whether there are any hopes of public support.*[98]

- Case three. It will take years to track down and repair the administrative damage done to the Forest Service by Assistant Secretary Mark Rey. Much of it will never be repaired. Chief Judge Donald Molloy of the District of Montana gives us a glimpse into the methodology of "privatization" of public values in our suffering forests. The case of *Forest Service Employees for Environmental Ethics v. U.S. Forest Service*[99] was a National Environmental Policy Act (NEPA)/ESA challenge to the agency's use of fire retardants,[100] an important matter, given the fact that climate change means dying trees and more fires.[101] Chief Judge Molloy ordered Secretary Rey to show cause why he should not be held in contempt and jailed.[102] The words are those of Judge Molloy:[103]
  - "[the agency embraced] a strategy of circumventing, rather than complying, with NEPA and the ESA."[104]
  - "In my view, the [FS] is in contempt of the law and the prior orders of this court."[105]
  - "[The FS] had no real intention to comply with the court's orders."[106]
  - The FS position is "duplicitous at best."[107]

---

[98] *Id.* at 11.
[99] Forest Serv. Employees for Envtl. Ethics v. U.S. Forest Serv., 530 F. Supp. 2d 1126 (D. Mont. 2008).
[100] *Id.* at 1128.
[101] Juliet Eilperin, *Study Ties Tree Deaths to Change in Climate*, WASH. POST, Jan. 22, 2009, at A8.
[102] *Forest Serv. Employees*, 530 F. Supp. 2d at 1135.
[103] *Id.*
[104] *Id.* at 1127.
[105] *Id.*
[106] *Id.* at 1131.

- The agency had "no intention to comply with the court's orders."[108]
- "Consistent with its apparent strategy to feign compliance with the law while in reality disregarding it."[109]

Young lawyers, please note: these three cases are more than citizen suits. They stopped the wrongdoing and they exposed the corruption.[110] They gave a new wind and legs to the practice of corrective justice. They continue to send a message to wayward officials: if you choose deliberately to undermine your government and your government's chosen policies, you will pay a price. It might be the pain of contempt, the stress of ongoing investigation, or the dread of a prosecution. Private attorneys who are patriotic in their own ways can be the keepers and the reminders of law, the investigators, and the instigators. Defense of system integrity (not unlike attempts to undermine it) can work at the wholesale level too.

B. Love Your Country

We will add a word about Loving Your Country. The word customarily associated with this idea is patriotism. A "patriot" is a person who loves, supports, and defends his country.[111] Sadly, "country" has become synonymous with "military" in many people's minds. The closest thing we have to a "patriotism" case in environmental law is *Winter v. Natural Resource Defense Council*,[112] where the Supreme Court recently reversed and remanded a NEPA-based preliminary injunction against Navy training exercises using MFA (high-intensity, mid-frequency active) sonar that would adversely affect thousands of

---

[107] *Id.* at 1134.
[108] *Forest Serv. Employees*, 530 F. Supp. 2d at 1131.
[109] *Id.* at 1134.
[110] *See* Earth Island Inst. v. Hogarth, 484 F.3d 1123 (9th Cir. 2007), *amended* 494 F.3d 757 (9th Cir. 2007); W. Watersheds Project v. Fish & Wildlife Serv., 535 F. Supp. 2d 1173 (D. Idaho 2007); *Forest Serv. Employees*, 530 F. Supp. 2d at 1126.
[111] AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 910 (4th ed. 2000).
[112] 129 S. Ct. 365 (2008).

marine mammals.[113] The members of the majority decision (Roberts, C.J., joined by Scalia, Kennedy, Thomas, and Alito, Justices) obviously believe themselves to be "patriots," and therefore this is what is expected of "patriots" in the context of military exercises and environmental compliance: (1) flagrant violations of law earn no injunction nor justification of one;[114] (2) objecting plaintiffs must go further to prove a likelihood of irreparable injury;[115] (3) though Congress has said otherwise, nonhuman life has no intrinsic value in this calculus other than that expressed by human sympathizers;[116] (4) any and all "irreparable injury" can be (and is in the particular case) "outweighed by the public interest and the Navy's interest in effective, realistic training of its sailors."[117]

This law, which apparently was invented to honor the warriors, immediately was heisted to serve the vandals. Thus the "patriotic" reformulation of the rules for injunctive relief in environmental cases was put to use quickly in the district courts to justify the denial of injunctions seeking to restrain polluting phosphate mining in Idaho[118] and destructive forestry practices in Georgia.[119]

Law students should read the *Winter* decisions and do their own "patriotism" checks. How will you define "country"—is there room to call this first and foremost a shared system of ideals, supported by its institutions? Our personal opinion is that ignoring violations of law, tolerating destruction of (and anguish to) marine life, and excusing noncompliance because an admiral said compliance would be inconvenient are poor measures of love of country. But trust your own judgment about the identity of the sunshine soldiers and summer

---

[113] *See* Natural Res. Def. Council v. Winter, 518 F.3d 658, 669 (9th Cir. 2008). The Navy estimated 564 instances of Level A "harassment," exposures that would injure marine mammals. "The Navy also estimated that the use of MFA [high-intensity, mid-frequency active] sonar would result in 8,160 exposures to Level B harassment with temporary hearing loss and 161,368 exposures to Level B harassment without hearing loss." *Id.*

[114] *Winter*, 129 S. Ct. at 372.

[115] *Id.* at 375–76.

[116] *See id.* at 378 ("For the plaintiffs, the most serious possible injury would be harm to an unknown number of marine mammals that they study and observe.").

[117] *Id.* at 376–77.

[118] Greater Yellowstone Coal. v. Timchak, No. CV-08-388-E-MHW, 2008 WL 5101754 (D. Idaho Nov. 26, 2008), *aff'd in part, vacated in part*, No. 08-36018, 2009 WL 971474 (C.A. 9, 2009).

[119] Sierra Club v. U.S. Forest Serv., 593 F.Supp.2d 1306 (N.D. Ga. Nov. 24, 2008).

patriots[120] in this judicial exercise about military preparedness and marine mammals. Ground yourself in your own generous instincts, and the world will eventually come around.

V. PLANNING AND CONDUCTING YOUR PERSONAL WAR ON BAD LAW

Climate change arrives on a U.S. legal scene that is not pristine, but is pocked and marked by the many signs of prior struggle.[121] This was the land where environmental law was born, reared, and guided to its maturity.[122] U.S. environmental law had radical roots in its repudiations of current technologies,[123] its litanies of health and environment first,[124] and its boastings of world transformation.[125] It was also pruned and hewn by corporate defense strategies and savvy businessmen who knew much more than birds and bees.[126] And they refined their own kitty of "environmental law defense mechanisms."[127] This thirty-year bombardment and rollback of the environmental laws thus arose in an environment where economic "goods" yielded environmental "bads."[128] This is the same environment writ large today by the ominous arrival of climate change. These "defense mechanisms," then, are "preadapted"[129]

---

[120] Thomas Paine, *The Crisis*, *in* THE POLITICAL WRITINGS OF THOMAS PAINE 75, 75 (G. Davidson, ed. 1824).

[121] *See* WILLIAM H. RODGERS, ENVIRONMENTAL LAW § 1.1, at 2 (West, 2d ed. 1994); *see generally* David A. Westbrook, *Liberal Environmental Jurisprudence*, 27 U.C. DAVIS L. REV. 619 (1994) (discussing the overall litigious history of environmental law).

[122] *See, e.g.*, KARL BOYD BROOKS, BEFORE EARTH DAY: THE DRAINS OF AMERICAN ENVIRONMENTAL LAW 1945-1970 (2009); RICHARD J. LAZARUS, THE MAKING OF ENVIRONMENTAL LAW (2004). *See generally* Westbrook, *supra* note 121, at 663-80.

[123] Eric W. Orts, *Reflexive Environmental Law*, 89 NW. U. L. REV. 1227, 1235–36 (1995).

[124] Philippe Sands, *The 'Greening' of International Law: Emerging Principles and Rules*, 1 IND. J. GLOBAL LEGAL STUD. 293, 293 (1994).

[125] Cyril Kormos et al., *U.S. Participation in International Environmental Law and Policy*, 13 GEO. INT'L ENVTL. L. REV. 661, 684–93 (2001).

[126] *See* Stan Millan, *Federal Facilities and Environmental Compliance: Toward a Solution*, 36 LOY. L. REV. 319, 395–401 (1990).

[127] *See id.*

[128] Westbrook, *supra* note 121, at 644–45.

[129] Thomas Earl Geu, *Chaos, Complexity, and Coevolution: The Web of Law, Management Theory, and Law Related Services at the Millennium*, 66 TENN. L. REV. 137, 197 (1998) (citing William H. Rodgers, Jr., *Where Environmental Law and Biology Meet: Of Pandas' Thumbs, Statutory Sleepers, and Effective Law*, 65 U. COLO. L. REV. 25, 55–66 (1993) ("Preadaptation is certainly an observable phenomenon in law, if it is understood to mean

for rear-guard actions against legal initiatives to combat climate change, although for the most part, they did not anticipate today's issues of climate change.

What are the "environmental law defense mechanisms" of which we speak? They are the roll-back of "worst-case" analysis,[130] the rise of cap-and-trade,[131] the redefinition of sustainability,[132] and the invention and elaboration of the impossibility/futility hypothesis.[133]

Let's address the first three.

It is understood, of course, that judgments about "bad law" are replete with personal opinions, predilections on justice, workability, ethics, and other matters.[134] We would call it "bad law" to enter the era of climate change with three legal debits we will mention—the smallish "worst-case" doctrine,[135] the large cap-and-trade legal tool,[136] and the indeterminate concept of "sustainability."[137] These three legal items are all in play; unfortunately, they are dysfunctional and not robust when we need them most.

A. The Roll-Back of "Worst-Case" Thinking

> The Bush-Cheney administration d[id] most of its planning based on "worst-case scenario" situations.[138]
>
> John W. Dean, 2004

There are a dozen ways a determined government could constrain NEPA, and a hundred targets to choose from. So it is passing strange that

---

application of a legal rule in a context not contemplated by the designers. 'Preadaptation' is the concept that allows for much creative legal work and for the evolution of law to fit new contexts. It helps explain the flexibility of law, and in that regard it can be seen as a legal virtue. Taken to its logical extreme, however, it may also become a legal vice.")).

[130] *See infra* Part V.A.

[131] *See infra* Part V.B.

[132] *See infra* Part V.C.

[133] *See infra* Part VI.

[134] *See* Bernard A. Weintraub, *Science, International Environmental Regulation, and the Precautionary Principle: Setting Standards and Defining Terms*, 1 N.Y.U. ENVTL. L.J. 173, 196–222 (1992).

[135] *See infra* Part V.A.

[136] *See infra* Part V.B.

[137] *See infra* Part V.C.

[138] DEAN, *supra* note 57, at 40.

the Reagan Administration, at the height of its powers, chose to make over the little rule on worst case analysis, whose genealogy goes back to the Carter years. This scrap of guidance, the "Worst Case Rule," originating in the Council on Environmental Quality, was downsized, repackaged, and redubbed the "Incomplete and Unavailable Information Rule."[139]

Thus, in 1986, the "Worst Case Rule" was rewritten and replaced by a dumber, weaker, and slimmer version.[140] All this occurred before the steady stream of climate changes' "worst cases" would come lumbering into view.[141] Cass R. Sunstein gives this downsizing of the "Worst Case Rule" the following explanation/justification:[142]

> Many people were troubled by a single question: What would be the effect of a total cargo loss by a supertanker, resulting in a massive oil spill? The government said that it need not investigate that highly improbable outcome. A federal court disagreed, ruling that a worst-case analysis was mandatory under the law.[143] In so saying, it pointed to a federal regulation specifically requiring government to explore worst-case scenarios.
>
> Responding to this decision and others like it, the Council on Environmental Quality, operating under President Ronald Reagan, acted aggressively. It deleted the requirement of worst-case analysis, and it issued a new regulation governing incomplete or unavailable information. The new regulation, still on the books, requires attention only to reasonably foreseeable adverse impacts. For low-probability risks of catastrophe, discussion is required only if "the analysis of the impacts is supported by credible scientific evidence, is not based on pure

---

[139] 40 C.F.R. § 1502.22 (2008) ("Incomplete or unavailable information" rule.), *previously* 43 Fed Reg. 55,994 (1978).
[140] § 1502.22.
[141] *See* Cass R. Sunstein, *On the Divergent Reactions of Americans to Terrorism and Climate Change*, 107 COLUM. L. REV. 503 (2007) (discussing the American reaction to the "worst case" scenarios of both terrorism and climate change.).
[142] CASS R. SUNSTEIN, WORST-CASE SCENARIOS 20–21 (2007).
[143] Sierra Club v. Sigler, 695 F.2d 957 (5th Cir. 1983).

> conjecture, and is within the rule of reason." If we view its decision sympathetically, the government did not want peoples' imaginations to run wild—or to allow scare tactics, or sheer speculation, to derail legitimate or promising projects. A more skeptical observer would say that the government sought to protect its decisions from public scrutiny by concealing the possibility of real disaster.
>
> Predictably, this regulation was challenged in court. The case involved a development project that had, as a worst-case scenario, the complete devastation of a local herd of mule deer. The Supreme Court upheld the regulation.[144] The Court said that the worst-case requirement had attracted "considerable criticism." If the government discusses a worst-case scenario in public, people might well fixate on it, even if it is most unlikely to come to fruition. If people fixate on that bad outcome, they might have serious qualms about a proposed course of action, even if it promises huge benefits and even if the small risk really should be ignored.[145]

This mild defense of the worst-case rollback has an information-containment strategy within it. Any "straight talk" to the American people is supposed to be sensitive to their bad hearing and wrong thinking. Some things would be best left unsaid to a testy public primed for "fixation" on wrong scenarios and prone to jumpiness. With regard to the "total cargo loss" from the supertanker, that quirky all-American brain is said to be especially vulnerable to the "pure conjecture," "scare tactics," and "sheer speculation" that public agencies can foster. Conveniently, the winding down of "worst case" analysis preceded the catastrophic 1989 oil spill of the *Exxon Valdez*.[146] In that context, "actual case" reality easily outdistanced any timid forays that might have been made into the new world of "Incomplete and Unavailable Information."

---

[144] Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989).

[145] SUNSTEIN, *supra* note 142.

[146] William H. Rodgers, Jr. et al., *The* Exxon Valdez *Reopener: Natural Resources Damage Settlements and Roads Not Taken*, 22 ALASKA L. REV. 135 (2005); Charles H. Peterson et al., *The Long-Term Ecosystem Response to the Exxon Valdez Oil Spill*, 19 SCI. MAG. 2032 (2003), *available at* http://www.afsc.noaa.gov/Publications/misc_pdf/peterson.pdf.

These days, the science is filled with talk of "tipping points" and the truly dire consequences that follow.[147] Many of these unmentionable "worst cases" are the product of the Global Circulation Models that climate researchers use.[148] We would have to discourage this modeling, too, lest the unsuspecting public become "fixated" on scenarios such as collapse of the ice sheets, a slowing down of ocean circulation, a conflagration of the Amazon, and other system collapses.

My recollection of the Supreme Court *Robertson* decision departs from that of Professor Sunstein. The Supreme Court clearly said that the authorities could kill all the deer (30,000 with a single swat),[149] and NEPA could not be raised in objection.[150] Strangely, I guess, this decision allows the agencies to do damage they couldn't even talk about—less the public become "fixated" on it—in the Environmental Impact Statement.[151] This dreadful decision was applied recently by the Eleventh Circuit, with the panel reasoning that if officials could kill all the deer in the Cascades, they certainly could destroy any and all of the Everglades.[152]

Of course Professor Sunstein is quite aware that public risks can be talked up and talked down by worst-case political entrepreneurs.[153] Terrorism was talked up by the George W. Bush administration, and the words touched the mind-motors of the general public (the cognitive drivers of availability, probability neglect, and outrage).[154] Climate

---

[147] Deepa Badrinarayana, *The Emerging Constitutional Challenge of Climate Change: India in Perspective*, 19 FORDHAM ENVTL. L. REV. 1, 4 (2009).

[148] *See* Daniel A. Farber, *Modeling Climate Change and Its Impacts: Law, Policy, and Science*, 86 TEX. L. REV. 1655 (2008). On the understatements of modeling, see JAMES LOVELOCK, THE VANISHING FACE OF GAIA: A FINAL WARNING 38 (2009) ("I greatly respect the climate scientists of the IPCC and would prefer to accept as true their conclusions about future climates. . . . [B]ut I cannot ignore the large differences that exist between their predictions and what is observed.").

[149] *Robertson*, 490 U.S. at 350–55.

[150] *Id.* at 350–51.

[151] *Id.* at 349–50.

[152] Sierra Club v. Van Antwerp, 526 F.3d 1353, 1360-62 (11th Cir. 2008) (Dubina, J.). A study should be done on the briefing, argument, and decisionmaking that succeeded in completely undoing a courageous decision by federal district judge James Hoeveler.

[153] Sunstein, *supra* note 141.

[154] SUNSTEIN, *supra* note 142, at 17–70; *see* Sunstein, *supra* note 141.

change was talked down. Law was made to move in the one case, but not in the other.

Professor Sunstein concludes his study of the "Worst Case" by having it both ways:

> For some people, contemplation of worst-case scenarios, and of the right ways of handling them, is a central part of their job description. We delegate authority to them in the hope that they will do much better than those of us who must rely on intuitions, limited experience, and partial knowledge. Without an appreciation of human weakness, and of the best ways of counteracting it, their jobs cannot be done well. For most of us, worst-case scenarios rarely deserve sustained attention. Life is short, and we might as well enjoy it. But if we are alert, on occasion, to the worst that might happen, we should be able to enjoy life a lot longer.[155]

The situation seems to us to be that policy responses to climate change are suffering from a "worst case" deficit. This is not the time for law to reinforce official tendencies that play down alarmism. For the law student, the take-home message is that the frenzy of legal activism now underway[156] is framing and advancing the public understanding of climate change. Institutional response will follow, and we will celebrate human "strength" in its insights and understanding and not its weakness or its proclivity to passion.[157]

---

[155] SUNSTEIN, *supra* note 142, at 285–86.

[156] *See, e.g.*, S.F. Chapter of A. Philip Randolph Inst. v. EPA, No. C07-04936, 2008 WL 859985 (N.D. Cal. March 28, 2008) (seeking an order from the court to compel the EPA to immediately determine whether carbon dioxide "cause[s], or contribute[s] to, air pollution which may reasonably be anticipated to endanger public health or welfare."); People of California v. Gen. Motors Corp., No. C06-05755 MJJ, 2007 WL 2726871 (N.D. Cal. Sept. 17, 2007) (California seeks damages against various automakers for creating and contributing to global warming as a public nuisance.); Connecticut v. Am. Elec. Power Co., 406 F. Supp. 2d 265 (2005) (suing electric utilities for abatement of the public nuisance of global warming) *rev'd* 582 F.3d 309 (2d Cir. 2009) (claims adequately stated under the federal common law of nuisance).

[157] Robert F. Blomquist, *Thinking About Law and Creativity: On the 100 Most Creative Moments in American Law*, 30 WHITTIER L. REV. 119 (2008).

B. The Rise of Cap-and-Trade

The U.S. had done virtually nothing on climate change and, as this is written,[158] the Obama administration has yet to unveil its recommendations. Yet, knowledgeable observers will tell you that the central component of any U.S. response is a "done deal."[159] The deal that is "done" is some version of cap-and-trade.[160] The student might ask: How can it be that, on an issue as grave as this one, the essential features of our national debate will end in a predictable way?

We would say to you that thinkers about U.S. environmental law are sapped of imagination and have been stuck on an empty called cap-and-trade for a generation. This "solution," which has risen to the dangerous level of mythology, came to prominence on the surge of confidence that the "market knows best" and it survives all refutation.

To qualify as "mythology," a concept must have its own "creation story."[161] It must be immune from empirical refutation and it must grow stronger each and every time it is shown to be unworkable. A good legal myth, in short, should survive a thorough trouncing in the trenches of reality. When the spaceship failed to arrive to save the little band of believers from the impending doom on Earth, it was obvious to all that

---

[158] May, 2009.

[159] *See* Cinnamon Carlarne, *Climate Change Policies an Ocean Apart: EU & US Climate Change Policies Compared*, 14 PENN ST. ENVTL. L. REV. 435, 435 (2006); Robert Stavins, *A U.S. Cap and Trade System to Address Global Climate Change*, BROOKINGS, Oct. 2007, http://www.brookings.edu/papers/2007/10climate_stavins.aspx.

[160] *See generally* J.R. DeShazo & Jody Freeman, *Timing and Form of Federal Regulation: The Case of Climate Change*, 155 U. PA. L. REV. 1499 (2007) (laying out the impetus for Federal regulation from the groundswell of state regulation, environmental and industrial lobbies, and the lack of cohesive national policy).

[161] For one fawning account of "cap and trade," see FRED KRUPP & MIRIAM HORN, EARTH: THE SEQUEL—THE RACE TO REINVENT ENERGY AND STOP GLOBAL WARMING 1 (2008) (Fred Krupp is the President of the Environmental Defense Fund); Sharon Tomkins et al., *Litigating Global Warming: Likely Legal Challenges to Emerging Greenhouse Gas Cap-and-Trade Programs in the United States*, 39 ENVTL. L. REP. NEWS & ANALYSIS 10389, 10389 (2009) ("In President Barack Obama's first speech to a joint session of the U.S. Congress, he asked Congress to send him 'legislation that places a market-based cap on carbon pollution,' dramatically increasing the chances of passing in 2009 a federal cap-and-trade program.").

the world had been spared only because of the sturdy belief of the truly faithful.[162]

The Kyoto Protocol, mentioned in the same breath as Munich by James Lovelock,[163] has its own market-trading measures.[164] There is frequently a path-dependence in law so that bad choices and poor designs have their own reasons for being perpetuated.

Cap-and-trade was born in the context of the U.S. acid rain program. It didn't work there because it was mostly trade and not much cap.[165] The "acidified lakes" claimed to have been improved are measured in tiny percentages,[166] though empirical refutation counts for naught in this cold business of political imagination. Exported to Europe and applied to climate change, cap-and-trade was—and is—an unmitigated disaster.[167] This was after the unmitigated disasters let loose in the name of cap-and-trade under Kyoto's so-called "Clean Development Mechanism."[168]

---

[162] TAVRIS & ARONSON, *supra* note 8, at 12–13 (Chapter 1—"Cognitive Dissonance: The Engine of Self-justification").

[163] JAMES LOVELOCK, THE REVENGE OF GAIA: EARTH'S CLIMATE CRISIS & THE FATE OF HUMANITY 10 (2006).

[164] Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 37 I.L.M. 22 (1998); Conference of the Parties to the Framework Convention on Climate Change, Kyoto, Japan, Dec. 10, 1997, *Kyoto Protocol*, 37 I.L.M 22 (1998).

[165] *See* Amy Sinden, *The Tragedy of the Commons and the Myth of a Private Property Solution*, 78 U. COLO. L. REV. 533, 571–76 (2007).

[166] *See* U.S. ENVTL. PROT. AGENCY, REPORT ON THE ENVIRONMENT: AIR 42–43 (2008) (lake acidity data that identifies acidified lakes).

[167] For a preliminary assessment of the European Union's Emissions Trading Scheme, see GEORGE MONBIOT, HEAT: HOW TO STOP THE PLANET FROM BURNING 46 (2007). Monbiot writes:

> This system, which has been running since the beginning of 2005, began by handing out carbon dioxide emission permits, free of charge, to big European companies. By and large, those who produced the most carbon emissions were given the most permits: the polluter was paid. This handout was so generous that, in May 2006, the British government's consultants calculated that power firms would be making a windfall profit from the scheme of around [1 billion pounds], while doing nothing to reduce their emissions. The Emissions Trading Scheme is a classic act of enclosure. It has seized something which should belong to all of us—the right, within the system, to produce a certain amount of carbon dioxide—and given it to the corporations.

[168] *See* Michael Wara, *Measuring the Clean Development Mechanism's Performance and Potential*, 55 UCLA L. REV. 1759 (2008) (demolishing the Clean Development Mechanism trading scheme). Additionally, the trading scheme is mocked by George Monbiot. *See* MONBIOT, *supra* note 167, at 210 ("Today you can find the tariffs for crimes about to be committed on noticeboards erected throughout cyberspace. 'Carbon offset' companies promise to redeem the environmental cost of your carbon emissions by means of intercession with the

There you have it: cap-and-trade. It does not work. It will not work. It is not supposed to work. And students around the world are urged to consider our fresh idea to tackle climate change: cap-and-trade.

Yet, persistence in the face of repeated failure has an admirable quality to it. As the "only game in town," many intelligent people obviously believe that cap-and-trade is not a pathetic social version of the quest to overcome the Second Law of Thermodynamics. As long as we are recycling old ideas, how about one that has been proven to work: regulation under existing environmental laws. This is where the real gains have been made in the past, and can still be made in the face of the climate threat. Have U.S. citizens become so jaded by the consumer culture that they must be sold a "new" item to replace last year's model, even though it still works perfectly?

The consideration of mechanisms for addressing climate change brings to mind the "Panda's Thumb."[169] Like the Panda, who evolved an "imperfect" (at least to the engineer) solution to the problem of a new environment and diet, there is nothing wrong with working from what tools and "spare parts" we currently possess; after all, the Panda's evolutionary solution has served it remarkably well.[170] The pitfall is failing to evolve the mechanism to fit the new use. This is where current

---

atmosphere: planting trees, funding renewable energy projects in distant nations and doubtless, somewhere, helping Andean villagers to build bridges. Just as in the fifteenth and sixteenth centuries you could sleep with your sister, kill and lie without fear of eternal damnation, today you can leave your windows open while the heating is on, drive and fly without endangering the climate, as long as you give your ducats to one of the companies selling indulgences. There is even a provision of the Kyoto Protocol permitting nations to increase their official production of pollutants by paying for carbon-cutting projects in other countries. I will not attempt to catalogue the land seizures, conflicts with local people, double counting and downright fraud that has attended some of these schemes. That has been done elsewhere. My objections are more general."). *See also* David M. Driesen, *Sustainable Development and Market Liberalism's Shotgun Wedding: Emissions Trading Under the Kyoto Protocol*, 83 IND. L.J. 21 (2008); Holly Doremus & Michael Hanemann, *Of Babies and Bathwater: Why the Clean Air Act's Cooperative Federalism Framework Is Useful for Addressing Global Warming*, 50 ARIZ. L. REV. 799 (2008) (for rare and refreshing voices urging a place for technology-based regulations).

[169] *See* Stephen J. Gould, *The Panda's Peculiar Thumb*, 87 NAT. HISTORY 20, 20 (1978); William H. Rodgers, Jr., *Where Environmental Law and Biology Meet: Of Pandas' Thumbs, Statutory Sleepers, and Effective Laws*, 65 U. COLO. L. REV. 25, 50–52 (1993).

[170] Gould, *supra* note 169; Rodgers, *supra* note 169.

proposals fall flat. Thus, let's put a tax on cap-and-trade and let's put a cap on the cap that resembles stringent regulation. We'll have a cap and trade that looks like the "same old bear" but with a different bite to it.

We are the first to concede that pontification about "something that actually works" rings hollow in a political-legal environment that prefers "something that appears to work" or "something that does not work."

C. *The Reformulation of Sustainability*

> "[S]ustainable development" is development "that meets the needs of the present without compromising the ability of future generations to meet their own needs."[171]
>
> The Brundtland Commission, 1987

The idea of sustainability is one of the most inspiring ideas in the history of environmental thought.[172] The notion, it seems, is that our natural world (in some dimension, form, or function) must be retained and continued to support life as we understand it. Works of scholarship extol the idea[173] and most of these are clustered around the notion of maintaining nature's paragons and the human institutions built around them. Our personal sentimental understanding of "sustainability" is captured in the 1946 will of Sampson Tulee, a Yakama Indian, who expressed this view of his world of fishing on the mid-Columbia River: "It is my wish that the rights now enjoyed by me on the aforementioned fishing sites be continued on and on, passing from generation to generation to the descendants of my children as aforementioned."[174]

The vulnerabilities of "sustainability" as a policy pillar were pre-advertised. The concept is monumentally ambiguous. It counsels restraint

---

[171] GRO H. BRUNTLAND, WORLD COMM'N ON ENV'T & DEV., OUR COMMON FUTURE 43 (1987).

[172] JOHN C. DERNBACH, AGENDA FOR A SUSTAINABLE AMERICA (2009).

[173] Search for Professor William H. Rodgers, Jr. by Cheryl Nyberg, Reference Librarian, Gallagher Law Library, University of Washington, School of Law, Jan. 2009 (law review articles with "sustainability" in the title number 206 (Westlaw's LRI database) or 134 (Westlaw's JLR database)). *See, e.g.*, Erik Bluemel, *Biomass Energy: Ensuring Sustainability Through Conditioned Economic Incentives*, 19 GEO. INT'L ENVTL. L. REV. 673 (2007); Enrique Rene De Vera, *The WTO and Biofuels: The Possibility of Unilateral Sustainability Requirements*, 8 CHI. J. INT'L L. 661 (2008).

[174] *See* JOSEPH C. DUPRIS, KATHLEEN S. HILL & WILLIAM H. RODGERS, JR., THE SI'LAILO WAY: INDIANS, SALMON AND LAW ON THE COLUMBIA RIVER 20 (2006).

in a world that shows little of it. It weds the lamb of environmental protection with the lion of economic development and hopes for the best. James Lovelock, in his inimitable and forthright way, identifies another problem: "The humanist concept of sustainable development and the Christian concept of stewardship are flawed by unconscious hubris. We have neither the knowledge nor the capacity to achieve them. We are no more qualified to be the stewards or developers of the Earth than are goats to be gardeners."[175]

Lovelock continues:

> Many consider this noble policy [of sustainable development] morally superior to the laissez faire of business as usual. Unfortunately for us, these wholly different approaches, one the expression of international decency, the other of unfeeling market forces, have the same outcome: the probability of disastrous global change. The error they share is the belief that further development is possible and that the Earth will continue, more or less as now, for at least the first half of this century.
>
> . . . .
>
> When there were only one billion of us in 1800, these ignorant policies were acceptable because they caused little harm. Now, they travel two different roads that will soon merge into a rocky path to a Stone Age existence on an ailing planet, one where few of us survive among the wreckage of our once bio-diverse (sic) Earth.[176]

Goats and gardeners? Quite compelling, one might say. At the very least, the idea of "sustainability" must protect the very climate that nurtures us. Surely, no person on Earth could believe that the very climate itself is but an elaborate tinker toy in the hands of creative and ambitious humans. Think again. And listen carefully to the comments of Michael Griffin, head of NASA (May of 2007) in the George W. Bush

---

[175] LOVELOCK, *supra* note 163, at 137.
[176] *Id.* at 3.

administration. This agency does more climate-related research than any other entity on earth:

> I have no doubt . . . that a trend of global warming exists. I am not sure that it is fair to say that it is a problem we must wrestle with. To assume that it is a problem is to assume that the state of Earth's climate today is the optimal climate, the best climate that we could have or ever have had, and that we need to make sure that it doesn't change. First of all, I don't think it's within the power of human beings to assure that the climate does not change, as millions of years of history have shown, and second of all, I guess I would ask which human beings—where and when—are to be accorded the privilege of deciding that what we have right here today, right now, is the best climate for all other human beings. I think that's a rather arrogant position for people to take.[177]

Less strident but equally assured are the comments of a leading legal academic, Cass R. Sunstein:

> To the extent that the idea of sustainable development is meant to require a specific policy of preserving *environmental* goods, it offers a useful suggestion that current actions can produce short-run economic benefits while also creating long-term environmental problems. The suggestion is especially important in the face of potentially irreversible environmental change. But environmental protection can burden the future too, especially if it is extremely costly, and we have no abstract reason to believe that preserving a particular environmental amenity (a forest, a lake) is always better for posterity than other investments that do not involve the environment in particular (expenditures on basic research, reductions in national debt). In any case, economic growth can be good for the environment, too, because it increases the resources available for protecting environmental amenities.[178]

---

[177] MARK BOWEN, CENSORING SCIENCE: INSIDE THE POLITICAL ATTACK ON DR. JAMES HANSEN AND THE TRUTH OF GLOBAL WARMING 297 (2008) (quoting Michael Griffin).
[178] SUNSTEIN, *supra* note 142, at 273–74 (emphasis in original).

There is a little bit of "goat" in this passage. We are left to wondering just what irreversible economic damage will be wrought by mindless environmental protection strategies, and importantly who holds the balancing scales. So posterity won't mind if we give up an "amenity" now and then to make everybody better off. Sunstein mentions small things—a "forest" (while the reader thinks "The Amazon") or a "lake" (while the reader thinks "Lake Chad" or "Lake Victoria" or maybe "Lake Roosevelt" where the Columbia River used to be). But the professor is not reckless in his hubris and his balancing. So we can hope: maybe this influential fellow will stop short of Michael Griffin to insist that our present climate is something we might wish to "sustain."

Unfortunately, the goat in Professor Sunstein's writing gets larger as you turn the prolific pages. Here he elaborates upon what he describes as the Principle of Intergenerational Neutrality ("one that requires that the citizens of every generation be treated equally"):

> But the Principle of Intergenerational Neutrality does not mean that the present generation should refuse to discount the future, or should impose great sacrifices on itself for the sake of those who will come later. If human history is any guide, the future will be much richer than the present; and it makes no sense to say that the relatively impoverished present should transfer its resources to the far wealthier future. And if the present generation sacrifices itself by forgoing economic growth, it is likely to hurt the future too, because long-term economic growth is likely to produce citizens who live healthier, longer, better lives. I shall have something to say about what intergenerational neutrality actually requires, and about the complex relationship between that important ideal and the disputed practice of "discounting" the future.[179]

The smallness in this thinking is the firm belief that "human history" should be the guide. This passage assumes the continuation of the very climate (commonly called the Holocene) in which human civilization has

---

[179] *Id.* at 11–12.

flourished,[180] while preaching the policy of unrequited economic expansion that is destroying it. The startling lesson of climate change is that we are transforming the world far beyond the four corners of the 10,000-year climate that served as the cradle of civilization. Many of the climate researchers are asking us to think not in 10,000-year increments, but in terms of 450 million years.[181] There are some very bad conditions in our deep history that we will not want to experience.[182]

Professor Sunstein appears to have a limited sense of what "wealth" constitutes.[183] Arguably those living today in a natural world that has been battered by previous abuses are much poorer than those living a century ago.[184] Our oceans have been over-fished, our children play in polluted streams with measurable levels of toxins in their bloodstream.[185]

---

[180] *See generally* Paul A. Mayewski et al., *Holocene Climate Variability*, 62 QUARTENARY RES. 3, 243–55 (2004) (examining the approximately 50 globally distributed paleoclimatic records, revealing that there may be as many as six periods of significant and rapid climate change during the Holocene period (9,500 B.C. to the present) that have had significant impact on human civilizations).

[181] Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie, 508 F. Supp. 2d 295, 316 (D. Vt. 2007) (Hansen testimony); *see also* J.B. Ruhl, *Climate Change and the Endangered Species Act: Building Bridges to the No-Analog Future*, 88 B.U. L. REV 1 (2008) (exploring the relationship of climate change to the current regulatory framework of the Endangered Species Act, and proposing a reformed view by the United States Fish and Wildlife Service in administering the Act that is broader in scope and application).

[182] Peter Ward, *Mass Extinctions in Deep Time as Clues to Potential Future Catastrophes: The Most Dangerous Threat from Global Warming*, *in* CLIMATE CHANGE READER, *supra* note *.

[183] *See generally* SUNSTEIN, *supra* note 142, at 258 (suggesting the contributions of current generations can be measured in an astounding increase in wealth that will surely benefit future generations).

[184] *See* THOMAS BENDER, RETHINKING AMERICAN HISTORY IN A GLOBAL AGE 172 (2002) (tracking the advent of environmental development and thought in America and its nascent awareness of harmful degradation and decay). *See generally* David Lowenthal, *Environmental History: From the Conquest to the Rescue of Nature*, *in* CULTURAL ENCOUNTERS WITH THE ENVIRONMENT: ENDURING AND EVOLVING GEOGRAPHIC THEMES 177, 177–79 (Alexander Murphy, Douglas L. Johnson & Viola Haarman eds., 2000) (describing the historical context of humans in identifying and decrying environmental degradation, albeit from conflicting causes and with differing proposed solutions).

[185] *See* RACHEL CARSON, SILENT SPRING 187 (Houghton Miflin Harcourt 2002) (1962) (Many watersheds contain organochlorides, chlorinated hydrocarbons, organic phosphates, and various synthetic insecticides, pesticides and medications, of which the impact on living things is still not fully understood); Robin K. Craig, *Protecting International Marine BioDiversity: International Treaties and National Systems of Marine Protected Areas*, 20 J. LAND USE & ENVTL. LAW 333, 343–45 (discussing the incredible declines in marine bio-diversity); Don Mayer, *The Precautionary Principle and International Efforts to Ban DDT*, 9 SE. ENVTL. L.J. 135, 167–69 (2002) (discussion of the impact of organochlorides on children, with particular emphasis on DDT).

Despite the major economic and non-economic impacts these circumstances have on human society, they apparently do not make it onto the balance sheet.[186]

And what of the infatuation with continual economic growth as a measure of wealth? Is this truly what future generations want or need? Professor Speth outlines the multitude of studies that indicate, beyond a minimal level of national per capita income, further increases are not correlated with greater subjective well-being.[187] The U.S. is well above the threshold income level.[188] It is now time to consider how non-currency assets will benefit future generations.[189]

VI. REJECTING DEFEATISM AND IMPOSSIBILITY THEOREMS

> A healthy human being, [Lionel Tiger] points out, tends to err on the side of optimism in estimating his or her chances of success, and this error paradoxically renders the desired outcome more likely. Nothing ventured, nothing gained, and the more commitment and spirit there is invested in an enterprise, the better its prospects for achievement. It is not as if inaction is a safe policy: as Henry David Thoreau put it, a man sits as many risks as he runs.

---

[186] *See* STEFAN SCHALTEGGER & ROGER BURRITT, CONTEMPORARY ENVIRONMENTAL ACCOUNTING 93 (2000) (giving an overview of how environmental intangibles could, and should, be incorporated in modern accounting methods); Nelson Goodell, Comment, *Making The "Intangibles" Tangible: The Need To Use Contingent Valuation Methodology in Environmental Impact Statements*, 22 TUL. ENVTL. L.J. 441, 448–50 (2009) (laying out the ineffectiveness of the EIS process without adequately accounting for environmental intangibles).

[187] James Gustave Speth, *Real Growth: Promoting the Well-being of People and Nature*, *in* THE BRIDGE AT THE EDGE OF THE WORLD: CAPITALISM, THE ENVIRONMENT, AND CROSSING FROM CRISIS TO SUSTAINABILITY 126 (2008); *see* FRANK ACKERMAN & LISA HEINZERLING, PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING (2004).

[188] Speth, *supra* note 187, at 127.

[189] *See generally* EDWARD H.P. BRANS, LIABILITY FOR DAMAGES TO PUBLIC NATURAL RESOURCES: STANDING, DAMAGE AND DAMAGE ASSESSMENT (2001) (informative book on the various methods available for litigators and decisionmakers to valuate natural resources that are both publicly and privately owned).

Frederick Turner, 1995[190]

Lionel Tiger has identified what he describes "as a ubiquitous, biologically based human propensity to unwarranted optimism," or positive self-deception.[191] Edward O. Wilson expresses the notion of "unwarranted optimism" somewhat differently: "Confidence in free will is biologically adaptive. Without it the mind, imprisoned by fatalism, would slow and deteriorate."[192] Unwarranted optimism of the human species is epitomized in the words of Andrew Revkin: "The erroneous belief that stabilizing emissions would quickly stabilize the climate supports wait-and-see policies but violates basic laws of physics."[193] Let us review the defeatism before urging all law students to ignore it in favor of the prospects of an uncertain future teeming with challenges and opportunities.

Admittedly, the extraordinary "facts" of climate change seem to mock human capacities and organization like the cynical hypothetical teasing of some malevolent God. We're very clever primates, to be sure, but have never been matched against the wicked combination of century-long lead times, enormous inertia in all drivers, and inscrutable systems of tips and flips[194] represented by this frightful parasite of greenhouse gases. Our grand thinking on how we have overcome the "tragedy of the commons" on many occasions is a popgun of inadequacy when tested against the demands of climate change.[195] One might as well walk into battle with a saber-toothed tiger armed with a shrill whistle and hoping she will listen to reason.

---

[190] Fredick Turner, *Introduction* to LIONEL TIGER, OPTIMISM: THE BIOLOGY OF HOPE xi (Kodansha America 1995) (1979). *See* EDWARD O. WILSON, THE CREATION: AN APPEAL TO SAVE LIFE ON EARTH (2006).

[191] MELVIN KONNER, WHY THE RECKLESS SURVIVE . . . AND OTHER SECRETS OF HUMAN NATURE 130 (1990) (quoting Lionel Tiger).

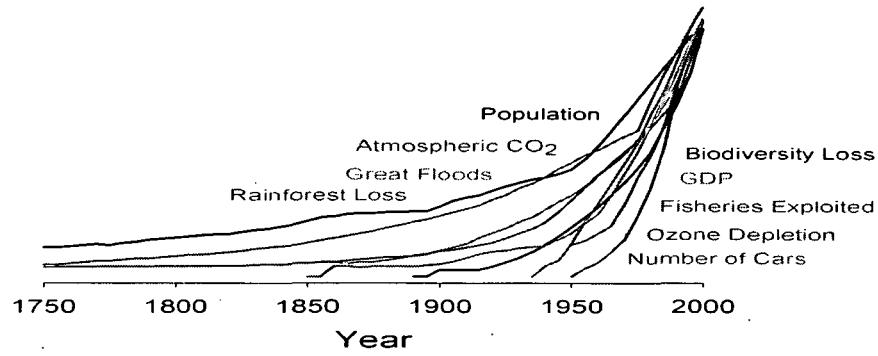
[192] EDWARD O. WILSON, CONSILIENCE: THE UNITY OF KNOWLEDGE 120 (1998).

[193] Andrew C. Revkin, *The Greenhouse Effect and the Bathtub Effect*, N.Y. TIMES, Jan. 28, 2009, http://dotearth.blogs.nytimes.com/2009/01/28/the-greenhouse-effect-and-the-bathtub-effect (quoting John Sterman, and discussing the work of Susan Solomon); *see* John D. Sterman, *Risk Communication on Climate: Mental Models and Mass Balance*, 322 SCIENCE, 532, 533 (Oct. 24, 2008), *available at* http://www.jantzmorgan.com/pdfs/Sterman_Risk_Communication_on_Climate.pdf.

[194] CALVIN, *supra* note 5, at 34.

[195] *See generally* Barton H. Thompson, Jr., *Tragically Difficult: The Obstacles to Governing the Commons*, 30 ENVTL. L. 241, 253 (2000).

However, it's worse than that. We've already fired our best conceptual shot—"sustainability"—and come up wanting. Here is a graphical depiction[196] of the speed and force of the drivers that are burying our world and our climate:



James Speth is an honest man so we would be wise to accept his description of the desolation of the international legal scene:[197]

> The results of two decades of international environmental negotiations are deeply disappointing. The bottom line is that today's treaties and their associated agreements and protocols cannot drive the changes needed. In general, the issue with the major treaties is not weak enforcement or weak compliance; the issue is weak treaties. Typically, these agreements are easy for governments to slight because the treaties' impressive—but nonbinding—goals are not followed by clear requirements, targets, and timetables. And even when there are targets and timetables, the targets are often inadequate and means of enforcement are lacking. As a result, the climate convention is

---

[196] Completed by Anna Moritz, 2009 J.D., University of Washington School of Law. *See* Speth, *supra* note 187. This graphic (or something like it) graced the cover recently of the British science magazine, *The New Scientist*, and was compiled from data collected and presented in Speth's chapter of the book, THE BRIDGE AT THE EDGE OF THE WORLD: CAPITALISM, THE ENVIRONMENT, AND CROSSING FROM CRISIS TO SUSTAINABILITY 126 (2008).

[197] SPETH, *supra* note 196, at 71–72.

> not protecting climate, the biodiversity convention is not protecting biodiversity, the desertification convention is not preventing desertification, and even the older and stronger Convention on the Law of the Sea is not protecting fisheries. The same can be said for the extensive international discussions on world forests, which never have reached the point of a convention.[198]

It's worse than this. Impossibility theorems stalk the scientific and policy stage. It can't be done. It's already too late.[199] Impossibility travels in close proximity to futility. Why try, goes the argument, since the cooperation you will need won't possibly be forthcoming? This form of "reasoning" appears in court decisions preventing local entities from taking positive steps to combat climate change.[200] One might as well burn the money of the taxpayers, they say.[201]

And it's worse yet. U.S. environmental law is already well-schooled in strategies of too late, long-since-gone, triage, sacrifice zones, and reluctance to send "good money after bad." Impoverished "baselines" are accepted everywhere under mindless strategies of warning statements, empty precautions, and "institutional controls" that do not control and have no institutions behind them.[202] Once the shellfish are gone, goes the argument, they will not be doubly gone if we continue to pollute. It's

---

[198] *Id.* at 71–72.

[199] *E.g.*, Anthony C. Grayling, *The World Needs a Slogan to Stave Off Catastrophe*, NEW SCIENTIST, Feb. 14, 2009, at 25.

[200] Okeson v. City of Seattle, 150 P.3d 556 (Wash. 2007) (successful challenge to Seattle City Light's program to mitigate greenhouse gas emissions to a "net-zero" by paying public and private entities to reduce those emissions; the Washington Supreme Court holds that Seattle City Light lacks authority to use ratepayer money to implement these offset contracts). For an in-depth chart that outlines all climate change litigation currently filed in the United States, *see* MICHAEL B. GERRARD & J. CULLEN HOWE, ARNOLD & PORTER, L.L.P., CLIMATE CHANGE LITIGATION IN THE U.S. (2009), *available at* http://www.climatecasechart.com/; *see generally* Hari Osofsky & Janet K. Levit, *The Scale of Networks?: Local Climate Change Coalitions*, 8 CHI. J. INT'L L. 409, 414 (2008) (interesting discussion of the legal impacts that local efforts can have on transnational issues like climate change).

[201] *Okeson*, 150 P.3d at 556.

[202] *Compare* Jeremy B.C. Jackson et al., *Historical Overfishing and the Recent Collapse of Ecosystems*, 293 SCIENCE 627 (2001), *and* John C. Jackson, *Is There a Standard Measuring Rod in the Universe?*, MON. NOT. R. ASTRON. SOC., Aug. 26, 2008, at 1-5 (the "baseline" paper, which demonstrates declining expectations of people), *with* Howard Latin, *"Good" Warnings, Bad Products, and Cognitive Limitations*, 41 UCLA L. REV. 1193 (1994) *and* Catherine O'Neill, *No Mud Pies: Risk Avoidance as Risk Regulation*, 3 VT. L. REV. 273 (2007) ("warning statements").

always a good defense against a charge of homicide to claim that the victim is long deceased.

Some would make it still worse. This is the idea that "human nature" (with its self-deceptions, misperceptions, worst-case exaggerations, and countless other foibles)[203] is an overall liability as we make our plans and take our actions. Two points need emphasis. One is that the "wrong-thinking" we are told to guard against reaches the leadership as well as the rest of us. Supreme Court Justice Antonin Scalia is vulnerable to it (in this instance self-justification and dissonance):

> When the public learned that Supreme Court Justice Antonin Scalia was flying to Louisiana on a government plane to go duck hunting with Vice President Dick Cheney, despite Cheney's having a pending case before the Supreme Court, there was a flurry of protest at Scalia's apparent conflict of interest. Scalia himself was indignant at the suggestion that his ability to assess the constitutionality of Cheney's claim—that the vice president was legally entitled to keep the details of his energy task force secret—would be tainted by the ducks and the perks. In a letter to the Los Angeles Times explaining why he would not recuse himself, Scalia wrote, "I do not think my impartiality could reasonably be questioned."[204]

Though none could question his impartiality, this open-minded Justice still found a way to support Dick Cheney's cause, which represents a stunning defeat for open government.[205] Cass Sunstein is vulnerable to it, accepting money from Exxon to study "mock juries" and their responses

---

[203] For a small sample of this fascinating literature, see Michael Brooks, *Born Believers: How Your Brain Creates God*, NEW SCIENTIST, Feb. 7, 2009, at 5 ("During the leanest of times, the strictest, most authoritarian churches saw a surge in attendance."); David Robson, *How to Control Your Herd of Humans*, NEW SCIENTIST, Feb. 7, 2009, at 13 (describing the "herd instinct" that lends itself to organized marching and copy-cat mimicry—the fine stuff of propaganda).

[204] TAVRIS & AARONSON, *supra* note 8, at 40.

[205] *See* Cheney v. U.S. Dist. Court for Dist. of Columbia, 542 U.S. 367 (2004).

to identical hypothetical cases.[206] Amazingly, his findings of wide unpredictability were compatible with the interests of Exxon. The Supreme Court is vulnerable to this same drift of self-justification, actually citing this research in the course of drastically cutting punitive damages from the Exxon oil spill while telling us: "Because this research was funded in part by Exxon, we decline to rely on it."[207] This isn't a tragedy, but it's a farce. The Supreme Court draws comfort from this research, cites it and draws our attention to it, and then disclaims reliance upon it.

Another point to keep in mind is that our legal system can be remarkably selective, in the "right thinking" that needs elevation and the "wrong thinking" that needs discouragement. In the footnote,[208] we will share with you the opinions of two of the fishing people who were

---

[206] *See* David Schkade, Cass Sunstein & Daniel Kahneman, *Deliberating About Dollars: The Severity Shift*, 100 COLUM. L. REV. 1139 (2001); Cass Sunstein, Daniel Kahneman & David Schkade, *Assessing Punitive Damages (with Notes on Cognition and Valuation in Laws)*, 107 YALE L.J. 2071 (1998).

[207] Exxon Shipping Co. v. Baker, 128 S. Ct. 2605, 2626-27 n.17 (2008).

[208] *See* KELLIE KVASNIKOFF, *EXXON VALDEZ*: 18 YEARS AND COUNTING *passim* (2007) (protesting and discussing the eradication of food supply, crushing of elders' spirits, dysfunctional cleanup program, flawed contingency plans, copious motion and litigation extravagance designed to discourage adversaries, misuse of "limited fund" theory to prevent "opt-outs" from the class, extravagant claims of privilege for 12,000 documents, a secret deal between Exxon and the Seattle Seven fishing companies to undercut the punitive damages award, numerous fines and penalties on environmental matters, destruction of indigenous peoples' rainforest with the Chad-Cameroon pipeline project, participation in climate-change cover-up, recognition as the "sixth-worst" polluter in the U.S., cozy relationships with the brutal Indonesian military, a "History of Pollution and Theft," numerous hazardous waste violations, withdrawal of oil and gas from Texas lands without permission, and defrauding Alabama on royalties due from natural gas wells in state waters); RIKI OTT, NOT ONE DROP: BETRAYAL AND COURAGE IN THE WAKE OF THE EXXON VALDEZ OIL SPILL *passim* (2008) (discussing numerous issues on the Exxon Valdez vessel, including false promises of double-bottom tankers and state-of-the-art vessel traffic control, reduced minimum crew sizes, the nonexistence of contingency plans, dysfunctional ballast water treatment plant, and failure to build the promised sludge incinerator. Ott also discusses the cover-up of sickness among oil clean-up workers, which she describes as more "charade" than "cleanup." Further, Ott describes the politicization of science, and incessant public relations. Additionally, Ott describes cover up attempts including tanker operators laundering hazardous wastes at Valdez—a "Ballast Watergate," Wackenhut spies, distortion of truth, the pledge of the Exxon chairman to "use every legal means available to overturn this unjust verdict," the Seattle Seven and the "fraud on the Court," Exxon's legal efforts to bring the *Exxon Valdez* back to Prince William Sound, and arrests at the Exxon shareholder meeting. Still, seventeen years after the spill, nine of twenty-four species originally injured are listed as "recovered." Finally, Ott describes the profit Exxon gained by stalling, "Some Corporate Defense Strategies in Adversarial Legislation," and Native creation of a "Shame Pole" dedicated to Exxon Mobil).

members of the class and, thus, the victims of the infamous *Exxon Valdez* oil spill. They are saying what the jurors were thinking when they set the punitive damages at $5 billion. In these opinions, we don't see the "outlier" behavior and "unpredictability" that the Supreme Court sought to quash, when it cut the punitive award by an order of magnitude equal to the compensatory award of $507.5 million. What we see (personal opinions, of course) is a well-informed expression of outrage doing what juries are supposed to do.

So, where does this leave us on climate change? First of all, this "worst-case scenario is not a bad approach. It captures the power of negative thinking. It allows us to draw on the best of science, the highest of learning, and the enormous information spawned by our institutions. It is a useful stance for would-be guardians of the future. Knowing your circumstance is a good place to start.

Knowing your circumstance is followed by the occasion of improving your circumstance. This captures the power of positive thinking. If the flaws in human nature that are so celebrated by pessimists could stop effective action, human progress would have been stanched long ago. Despite all talk of futility, impossibility, and resignation, the entire legal scene is a frenzy of hope, effort, creative initiative, and change.[209] That "unwarranted optimism" of the human species and of the legal profession appears to have seized momentary control in the rush to protect our world and our climate from unprecedented challenge.

It's a nice place to end a legal story. Impossible problems can only succumb to implacable convictions. Humans created the conditions for this climate change catastrophe. Perhaps they can stumble into ultimate triumph.

---

[209] *See* MICHAEL B. GERRARD & J. CULLEN HOWE, ARNOLD & PORTER, L.L.P., CLIMATE CHANGE LITIGATION IN THE U.S. (2009) http://www.climatecasechart.com/ (an excellent website that tracks scores of legal and administrative climate change initiatives now active.) *See also* Michael B. Gerrard, *What the Law and Lawyers Can and Cannot Do About Global Warming*, 16 S.E. ENVTL. L. J. 33 (2007).