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Commentary

Globalization and Its Losers

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I. THE END OF AN EPOCH

Globalization marks the end of an epoch. Not merely an epoch in the colloquial sense, but an epoch in the geological sense. The spread of *Homo sapiens* around the earth has brought about mass extinctions and related ecological changes on a scale not seen since the Cretaceous period. In its evolutionary impact, comprehensive human colonization of the planet easily outclasses an ice age, or even twenty. The previous geological event of comparable magnitude ushered out the dinosaurs; the one before that, the mass extinction that closed out the Permian period, nearly ended the terrestrial tenure of what we arrogantly call "higher" life forms.² In the last 600 million years of geological history, only five previous extinction spasms have taken place.³ We are living — or perhaps more accurately, dying — through the sixth.4 "[H]alf the world's species will be extinct or on the verge of extinction" by the end of the twenty-first century.⁵ In environmental terms, globalization merely continues what humanity has been doing since the glaciers last retreated: subdue every niche within its reach.6

^{1.} See Jared M. Diamond, Quaternary Megafaunal Extinctions: Variations on a Theme by Paganini, 16 J. Archaeol. Sci. 167 (1989) (observing that large mammals such as mammoths and ground sloths had survived 22 glacial cycles before succumbing to the Paleo-Indian colonization of North America, 11,000 to 12,000 years before our time). See generally Quaternary Extinctions: A Prehistoric Revolution (Paul S. Martin & Richard G. Klein eds., 1984).

^{2.} See, e.g., Stephen Jay Gould, Ever Since Darwin: Reflections in Natural History 134 (1977) (describing the "great dying" of marine organisms "[a]bout 225 million years ago, at the end of the Permian period," as "the most profound of several mass extinctions that have punctuated the evolution of life"); D.H. Erwin, The End-Permian Mass Extinction, 21 Ann. Rev. Ecol. & Systematics 69 (1990); David M. Raup, Diversity Crises in the Geological Past, in Biodiversity 51, 52 (E.O. Wilson ed., 1988) (noting how the world of higher organisms had "an extremely close brush with total destruction" at the end of the Permian period). The notion of "higher" versus "lower" life forms stems from a fallacious view of evolution. The true hallmark of evolution is diversity among and within species, not "progress" in the sense of an inexorable march toward increasing complexity. See Stephen Jay Gould, Full House: The Spread of Excellence from Plato to Darwin 15-16, 172-73 (1996).

^{3.} See David M. Raup, Extinction: Bad Genes or Bad Luck? 65-66 (1991).

^{4.} See Edward O. Wilson, The Diversity of Life 187-94 (1992).

^{5.} Jared Diamond, World of the Living Dead, 30 NATURAL HIST. 32, 32 (1991); cf. Wilson, supra note 4, at 278 (projecting that the extinction rate solely from rainforest destruction "might easily reach 20 percent by 2022 and rise as high as 50 percent or more thereafter").

^{6.} See generally Peter Vitousete et al., Human Domination of the Earth's Ecosystems, 277 Science 494 (1997).

The spectacle of mass extinction gives rhetorical ammunition to all opponents of globalization — not just environmentalists, but also those who resist free trade as a threat to labor standards, cultural independence, religious values, declining languages, agricultural self-sufficiency, and the like. Just as the global expansion of a single "Terminator" primate species has sparked the Holocene epoch's ecological holocaust, the emergence of a global society threatens a host of human institutions. Where a geological clock once marked the entrance and exit of species, an accelerated human stopwatch now tracks the rise and fall of regimes, religions, languages, and civilizations. Time and chance happen to them all.⁷

The extinction metaphor describes not only a natural world in ecological cataclysm, but also a human society buffeted by changes of unprecedented scope and seemingly relentless acceleration. In this dual sense, globalization is nothing short of the end of the world.⁸ So apocalyptic an assertion deserves nothing less than the most grandiose of intellectual frameworks. I will examine globalization through a Darwinian lens, in the hope that an application of natural evolution as "universal acid" will "eat[] through just about every traditional concept, and leave[] in its wake a revolutionized world-view, with most of the old landmarks still recognizable, but transformed in fundamental ways."9

In economic, cultural, and environmental realms, globalization unleashes the same Darwinian dynamics of adaptation, natural selection, and extinction. But the natural world and human society do differ fundamentally. For natural species, extinction truly is forever. The ecosystems they inhabit will not recover in any time frame that humans can meaningfully contemplate. Human institutions, by contrast, are much more readily preserved and revived. To the extent that globalized society must choose, it should systematically favor the environment over jobs and even culture.

One final observation bears notice. Received wisdom in American intellectual circles distrusts almost any extension of evolutionary metaphors and analogies outside the strictly bio-

^{7.} Ecclesiastes 9:11.

^{8.} See Richard Fortey, Life: A Natural History of the First Four Billion Years of Life on Earth 253, 260 (1997) (describing the end of the Cretaceous as "the apocalypse" and the debate over the precise terms of that catastrophe as the end of "the innocence of the world").

^{9.} Daniel C. Dennett, Darwin's Dangerous Idea: Evolution and the Meanings of Life 63 (1995).

logical domain.¹⁰ And not altogether without reason, for "social Darwinism" has a sorry history.¹¹ But I shall persist. If nothing else I hope that a creative infusion of Darwinian reasoning may foster more fruitful analysis of the interlocking economic, political, cultural, and environmental issues raised by globalization. Perhaps such a step "holds the seed of a new intellectual harvest, to be reaped in the next season of the human understanding."¹²

II. ALL TORMENT, TROUBLE, WONDER, AND AMAZEMENT¹³

New York Times columnist Thomas Friedman observes that globalization is erasing "the traditional boundaries between politics, culture, technology, finance, national security and ecology." These six frontiers mark the legal battlegrounds where free trade as a universal norm is still contested. The North American Free Trade Agreement (NAFTA), the European Union's Maastricht treaty, and the Uruguay Round all include labor, environmental, and cultural exceptions. ¹⁵ Now that the

^{10.} See Carl N. Degler, In Search of Human Nature: The Decline and Revival of Darwinism in American Social Thought 317-27 (1991).

^{11.} See generally Stephen Jay Gould, The Mismeasure of Man (rev. ed. 1996); Richard Hofstadter, Social Darwinism in American Thought (rev. ed. 1959).

^{12.} SUZANNE K. LANGER, PHILOSOPHY IN A NEW KEY: A STUDY IN THE SYMBOLISM OF REASON, RITE, AND ART 25 (3d ed. 1957).

^{13.} WILLIAM SHAKESPEARE, THE TEMPEST, act V, sc. 1, l. 112 (Louis B. Wright & Virginia A. LaMar eds., 1961) (1623).

^{14.} THOMAS L. FRIEDMAN, THE LEXUS AND THE OLIVE TREE: UNDERSTANDING GLOBALIZATION 15 (1999). For further background, see the reviews of Thomas Friedman's book in this issue of the *Minnesota Journal of Global Trade*. See Alfred E. Eckes, Book Review, 9 Minn. J. Global Trade (2000); Deirdre McCloskey, Book Review, 9 Minn. J. Global Trade (2000); Thomas W. Zeiler, Book Review, 9 Minn. J. Global Trade (2000).

^{15.} See North American Agreement on Environmental Cooperation, Sept. 14, 1993, U.S.-Can.-Mex., 32 I.L.M. 1499; North American Agreement on Labor Cooperation, Sept. 14, 1993, U.S.-Can.-Mex., 32 I.L.M. 1499; 19 U.S.C. § 3311(b)(2) (1994) (incorporating these "side agreements" on environmental protection and labor standards into the North American Free Trade Agreement); id. § 3471 (labor standards); id. § 3472 (environmental standards); Exec. Order No. 12,915, 59 Fed. Reg. 25,775 (May 13, 1994) (implementing NAFTA's environmental side agreement); Treaty on the European Union, Feb. 7, 1992, art. 36, O.J. (C 224) 1 (1992), [1992] 1 C.M.L.R. 573 (1992) (allowing trade restrictions "justified on grounds of public morality, public policy or public security; the protection of health and life of humans, animals or plants; the protection of national treasures possessing artistic, historical or archaeological value; or the protection of industrial and commercial property"); id. arts. 117-122 ("social policy" provisions of the Maastricht treaty); Single European Act,

economic case for free trade lies beyond reasonable dispute, "social issues" affecting employment and income, community and culture, and health and environment supply the primary — perhaps even exclusive — fault lines for legal debate. 16

The remainder of Part II explores the evolutionary pressures that globalization has placed on labor markets, local cultures, and the environment itself. *Citius, altius, fortius* blow the winds of globalization, but mostly *citius*. Today's world is simply faster.¹⁷ But not everyone can sustain this olympic pace. Economic and cultural "turtles," no less endangered than their zoological counterparts, are leading the backlash against contemporary international economic law. As long as these losers continue to wield political leverage, globalization's fate rests largely on the law's response.

A. Pax Mercatoria

Modernity was supposed to make everyone rich, and equally so. The world's nations, poor and rich alike, have agreed that "development is a universal and inalienable right and an integral part of fundamental human rights."²⁰ But globalization has

- Feb. 17-28, 1986, O.J. (L 169) 1 (1987) (recognizing environmental protection as an explicit objective of the European Community); General Agreement on Tariffs and Trade, art. XX, Oct. 30, 1947, 61 Stat. 1411, 1460, 55 U.N.T.S. 187, 262 (permitting exceptions to free trade principles, *inter alia*, to the extent "necessary to protect public morals," "human, animal or plant life or health," "national treasures of artistic, historic or archaeological value," and "the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption"); Agreement on the Application of Sanitary and Phytosanitary Measures, Dec. 15, 1993, GATT Doc. MTN/FA II-AIA-4. See generally Steven Charnovitz, NAFTA: An Analysis of Its Environmental Provisions, 23 Envil. L. RPIR. 10067 (1993).
- 16. See Steven Charnovitz, The WTO and Social Issues, 28 J. WORLD TRADE L. 17 (1994); Michael B. Smith, GATT, Trade, and the Environment, 23 ENVIL. L. 533 (1993).
- 17. See James Gleick, Faster: The Acceleration of Just About Everything (1998).
 - 18. See Friedman, supra note 14, at 267-83.
- 19. See Loggerhead Turtle v. County Council of Volusia County, 148 F.3d 1231 (11th Cir. 1998), cert. denied, 119 S. Ct. 1488 (1999); Report of the Panel on United States: Import Prohibition of Certain Shrimp & Shrimp Prods., 37 I.L.M. 832 (1998).
- 20. See, e.g., Vienna Declaration and Programme of Action, U.N. Doc. A/CONF.157/24, adopted at Vienna, June 14-25, 1993, reprinted in 32 I.L.M. 1661 (1993); Report of the International Conference on Population and Development, U.N. Doc. A/CONF.171/13, preamble, princ. 3, adopted at Cairo, Sept. 5-13, 1994; see also Report of the U.N. Secretary-General, Development and International Economic Cooperation: An Agenda for Development, ¶ 3, U.N. Doc. A/48/935 (48th sess., agenda item 91, May 6, 1994); Richard Bilder & Brian Z.

subordinated people, places, and things to skills, mobility, and ideas. Insofar as this shift widens the gap between haves and have-nots, globalization bears the blame for the fading of the dream of development as a universal norm.

The twentieth century witnessed an irreversible shift in the global economy. Where the wealth of nations once stemmed from manufacturing, advanced economies now run principally on information.²¹ Just as the industrial society of the early twentieth century outgrew the so-called "law of the horse,"²² to-day's information-based economy is rapidly eclipsing commercial laws designed to facilitate the sale of goods.²³ Human brains continue to assert their preeminence over natural brawn.²⁴ The United States, to name but one example, has expressed a two-to-one preference for investments in human capital over investments in physical infrastructure.²⁵ A single communications medium, the Internet, has so cheapened com-

- 21. See generally, e.g., Office of Technology Assessment, U.S. Congress, Electronic Enterprises Looking to the Future 13-15 (1994); Frederick M. Abbott, Public Policy and Global Technological Integration: An Introduction, 72 Chi.-Kent L. Rev. 345 (1996).
- 22. See Frank H. Easterbrook, Cyberspace and the Law of the Horse, 1996 U. Chi. Legal F. 207, 214; cf. Karl N. Llewellyn, Across Sales on Horseback, 52 Harv. L. Rev. 725, 735, 737 (1939) (lamenting the application of agrarian legal doctrines to transactions among merchants in an industrial setting); Karl N. Llewellyn, The First Struggle to Unhorse Sales, 52 Harv. L. Rev. 873 (1939) (same).
- 23. Compare U.C.C. art. 2 (1989) with National Conference of Commissioners on Uniform State Laws, Uniform Computer Information Transactions Act (draft of Oct. 15, 1999) http://www.law.upenn.edu/library/ulc/ucita/cita10st.htm and United Nations Convention on Contracts for the International Sale of Goods, U.N. Doc. AL CONF 97/18 (1980), reprinted in 19 I.L.M. 671 (1980) with Report of the United Nations Commission on International Trade Law on the Work of its Twenty-Ninth Session, U.N. GAOR, 51st Sess., Supp. No. 17, Annex I at 70, U.N. Doc. A/51/17 (1996).
- 24. See, e.g., Jean-Marie Guéhenno, The End of the Nation-State 8-9 (Victoria Elliot trans., 1995); John O. McGinnis, The Decline of the Western Nation-State and the Rise of the Regime of International Federalism, 18 Cardozo L. Rev. 903, 905-06 (1996); cf. Robert Reich, The Work of Nations 85-86 (1991) (asserting and documenting the economic dominance of the services and information sectors over manufacturing).
- 25. See United States v. Lopez, 514 U.S. 549, 621 (1995) (Breyer, J., dissenting); Theodore W. Schultz, Investment in Human Capital, 51 Am. Econ. Rev. 1, 26 (1961).

Tamanaha, The Lessons of Law-and-Development Studies, 89 Am. J. Int'l L. 470, 479 (1995) (reviewing Law and Development (Anthony Carty ed., 1992)) (describing the promotion of "the right to development as a fundamental human right [as] the most ambitious wing" of dependency theory in international law). See generally James C.N. Paul, The United Nations and the Creation of an International Law of Development, 36 Harv. Int'l L.J. 307 (1995).

munication that its "effect . . . on information is much like the effect of free trade on commerce." ²⁶

Free-market globalization shares at least one overriding characteristic with its putatively defeated competitor, communist internationalism.²⁷ Both ideologies assert the irrelevance of place. Whereas the communist vision of globalization depended on public actors' ability to export class struggle across national boundaries, the free-market version hinges on private actors' ability to move the means of production. By making "[r]aw materials, components, machinery, and many services... available globally on comparable terms," the internationalization of the modern economy "decouples [individual] firm[s] from the factor endowment of a single nation."²⁸ This phenomenon dooms entire classes of economic actors and institutions. In a globalized economy, no "place-based" community should expect to endure so much as a single human generation.²⁹ "The economy," in a word, "is global."³⁰

An economy that emphasizes knowledge and permits free movement handicaps workers who are readily displaced by poorer, hungrier counterparts. Globalization exerts downward pressure on wages. In the United States, described by fans and critics alike as the epicenter of free-market globalization,³¹ competition is arguably *the* defining national characteristic. You might not "want to compete, and yet this seem[s] the only way to

^{26.} Daniel A. Farber, Expressive Commerce in Cyberspace, GA. St. L. Rev. (forthcoming 2000). See generally Lawrence Lessig, The Zones of Cyberspece, 48 Stan. L. Rev. 1403 (1996) (discussing issues of legal extraterritoriality connected with the rise of the Internet).

^{27.} Cf. John Gray, False Dawn: The Delusions of Global Capitalism 3 (1998) (describing global capitalism and global communism as equally flawed efforts at achieving an unattainable "Enlightenment Utopia"). Elsewhere in this volume, Gray's book is reviewed in conjunction with Thomas Friedman's The Lexus and the Olive Tree. See sources cited supra note 14.

^{28.} Michael E. Porter, The Competitive Advantage of Nations 14 (1990).

^{29.} See generally Daniel Kemmis, Community at the Politics of Place 109-42 (1990) (articulating a "place-based" approach to environmental regulation); Bryan G. Norton & Bruce Hannon, Environmental Values: A Place-Based Approach, 19 Envil. Ethics 227, 244-45 (1997) (same).

^{30.} Richard B. Stewart, International Trade and Environment: Lessons from the Federal Experience, 49 Wash. & Lee L. Rev. 1329, 1366-67 (1992).

^{31.} Compare Friedman, supra note 14, at 309 ("America is blamed for [economic and social dislocations in other countries] because, in so many ways, globalization is us.") with Gray, supra note 27, at 101 ("Only in the United States is the Enlightenment project of a global civilization still a living political faith.").

be an American. Be stretched or strike."³² Worse still, "cost disease" makes human labor immune (or at least highly resistant) to cost-reducing technology.³³ Employers will either relocate or acquire technological substitutes for expensive labor.³⁴

The evolutionary metaphor, already well established in contemporary economics, 35 illuminates the plight of place-based communities and unskilled workers. By this analogy, place-based communities are the economic equivalents of ecological niches. Workers who are confined to a specific location or a limited skill set run a high risk of elimination. In economics and evolution alike, scarcity precedes extinction: "during fluctuations in the seasons or in the number of its enemies," members of a rare species "run a good chance of utter extinction." The increasingly "complex modern economy" erases entire lines of business; "the family farm," to pick but one example, becomes "an all-too-rapidly-vanishing remnant of [the industrialized world's] rural past." Some localities supposedly have the economic equivalent of "keystone" species. Sea otters, for instance, keep urchins in check and thereby maintain the health

^{32.} JOHN UPDIKE, IN THE BEAUTY OF THE LILIES 139 (1996). See generally JEAN-JACQUES SEVRAN-SCHRIEBER, THE AMERICAN CHALLENGE (Ronald Steel trans., 1968) (describing the American model of capitalism and distinguishing it from the European variant).

^{33.} William J. Baumol & W.E. Oates, *The Cost Disease of the Personal Services and the Quality of Life*, 1:2 Skandinaviska Enskilda Banken Q. Rev. 44 (1972).

^{34.} See George J. Stigler, The Division of Labor Is Limited by the Intent of the Market, 59 J. Pol. Econ. 1 (1951).

^{35.} See generally Richard R. Nelson & Sidney G. Winter, An Evolutionary Theory of Economic Change (1982); The Elgar Companion to Institutional and Evolutionary Economics (Geoffrey M. Hodgson et al. eds., 1994); Armen A. Alchian, Uncertainty, Evolution, and Economic Theory, 58 J. Pol. Econ. 211 (1950); Giovanni Dosi & Richard R. Nelson, An Introduction to Evolutionary Theories in Economics, 4 J. Evolutionary Econ. 153 (1994); E. Donald Elliott, The Evolutionary Tradition in Jurisprudence, 85 Colum. L. Rev. 38 (1985); Mark J. Roe, Chaos and Evolution in Law and Economics, 109 Harv. L. Rev. 641 (1996).

^{36.} Charles Darwin, On the Origin of Species by Means of Natural Selection 109 (1859) (Harvard U. reprint, 1964).

^{37.} Williamson v. Commissioner, 974 F.2d 1525, 1536 (9th Cir. 1992) (Reinhardt, J., dissenting).

^{38.} See Oregon Natural Resources Council, Inc. v. Kantor, 99 F.3d 334, 339 (9th Cir. 1996) (describing how some organisms provide crucial ecological services to their ecosystems); J.B. Ruhl, Biodiversity Conservation and the Ever-Expanding Web of Federal Laws Regulating Nonfederal Lands: Time for Something Completely Different?, 66 U. Colo. L. Rev. 555, 591 (1995) (same). See generally Peter B. Landres et al., Ecological Uses of Vertebrate Indicator Species: A Critique, 2 Conservation Biol. 16 (1988).

of kelp beds.³⁹ In like fashion, so it is often said, farmers are the indispensable lifeblood of rural communities.⁴⁰ Extirpate them, and the economic, social, and cultural fabric of their communities will be ripped beyond repair.⁴¹

Such endemicity arises from the "asset-specific" nature of human capital.⁴² The longer human beings work in one setting and with a single set of tools or skills, the more "specific" they become to that niche.⁴³ Among the many brutal truths that evolutionary theory could teach workers,⁴⁴ one might stand supreme: mastery of a bygone era's technology perversely spells quick doom when market conditions change.⁴⁵ The list of threatened, endangered, and extinct occupations is long and impressive:⁴⁶ cotton sharecropper,⁴⁷ traveling sales representative,⁴⁸ Linotype operator.⁴⁹ Exotics in the guise of multinational corporations invade declining niches, and the economic environment at large becomes increasingly homogenized.

39. See David O. Duggins, Kelp Beds and Sea Otters: An Experimental Approach, 61 Ecology 447 (1980).

40. See, e.g., Thomas Jefferson, Notes on the State of Virginia 164-65 (William Peden ed., 1954) ("Those who labour in the earth are the chosen people of God, . . . whose breasts he has made his peculiar deposit for substantial and genuine virtue."); id. at 174-75 (describing farmers as "the chosen people of God," a flawless "mass of cultivators" immune from "[c]orruption of morals"). See generally Linda A. Malone, Reflections on the Jeffersonian Ideal of an Agrarian Democracy and the Emergence of an Agricultural and Environmental Ethic in the 1990 Farm Bill, 12 Stan. Envil. L.J. 3, 4-7 (1993) (describing Jefferson's agrarian philosophy).

41. Cf., e.g., William Jennings Bryan, The Cross of Gold Speech (July 9, 1896), in Selected American Speeches on Basic Issues (1850-1950), at 182, 189 (Carl G. Brandt & Edward M. Shafter, Jr., eds. 1960) ("[T]he great cities rest upon our broad and fertile prairies. Burn down your cities and leave our farms, and your cities will spring up again as if by magic; but destroy our farms and the grass will grow in the streets of every city in the country.").

42. See Oliver E. Williamson, Credible Commitments: Using Hostages to Support Exchange, 73 Am. Econ. Rev. 519 (1983).

43. See Harold Demsetz, The Theory of the Firm Revisited, in The NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT 159, 169 (Oliver E. Williamson & Sidney G. Winter eds., 1993).

44. See generally Jim Chen, The American Ideology, 48 Vand. L. Rev. 809, 851-59 (1995) (describing the economic prospects of farmers in evolutionary terms).

45. Cf. David Tilman et al., Habitat Destruction and the Extinction Debt, 371 NATURE 65 (1994) (observing that any habitat's best adapted species are among the first to become extinct when that habitat is destroyed, largely because adaptation to one habitat impairs colonization in another).

46. Cf. Endangered Species Act of 1973, § 4, 16 U.S.C. § 1533 (1994) (providing for the listing of endangered and threatened plant and animal species).

47. See Toni Morrison, Jazz (1992).

48. See Arthur Miller, The Death of a Salesman (1949).

49. See John Updike, Rabbit, Run (1960).

Worst of all, these developments widen existing disparities in the distribution of wealth.⁵⁰ As "[t]he production of *things*... become[s] steadily cheaper," postindustrial society further polarizes its labor: "hamburger flipping on the one side and bourgeois occupations on the other."⁵¹ Inequality, too, has its ecological analogue. Ecosystems are not truly diverse unless they are "equitable" in the sense that multiple species coexist in some sort of rough numerical balance.⁵²

Globalization menaces the very idea of the nation-state. Inequality within nations and on a global scale challenges the power of the positive state to redistribute wealth. Especially for progressives, who prefer "gains for the relatively disadvantaged" over "gains for the relatively prosperous,"⁵³ government is less important as a source of property rules than as a mechanism for transferring wealth.⁵⁴ But globalization has shrunk the degrees of freedom in the making of public policy. The defeat of all other economic models leaves nations today with few choices beyond what Thomas Friedman calls the "Golden Straitjacket":

making the private sector the primary engine of . . . economic growth, maintaining a low rate of inflation and price stability, . . . maintaining as close to a balanced budget as possible, . . . eliminating and lowering tariffs on imported goods, . . . getting rid of quotas and domestic monopolies, . . . [and] opening [domestic] industries, stock, and bond markets to direct foreign ownership and investment ⁵⁵

Any society wishing to adapt globalization has exactly one choice. "Unfortunately, [the] Golden Straitjacket is pretty much 'one size fits all." The number of distinct economic niches is shrinking even as the overall level of wealth increases.

The sun is setting on the welfare state. Traditional tax-andspend responses to globalization inflict "Eurosclerosis,"⁵⁷ a cure

^{50.} Cf. Frederick M. Abbott, The WTO TRIPS Agreement and Global Economic Development, 72 CHI.-KENT L. REV. 385, 393-95 (1996) (describing the growing gap between technology "haves" and "have-nots").

^{51.} D.N. McCloskey, Bourgeois Virtue, 63 Am. Scholar 177, 178 (1994) (emphasis in original).

^{52.} See Anne E. Magurran, Ecological Diversity and Its Measurement 7, 34-39 (1988); Wilson, supra note 4, at 151-52.

^{53.} Mark Kelman, Could Lawyers Stop Recessions? Speculations on Law and Macroeconomics, 45 Stan. L. Rev. 1215, 1224 (1993).

^{54.} See Jim Chen, Fugitives and Agrarians in a World Without Frontiers, 18 CARDOZO L. REV. 1031, 1040-41 (1996).

^{55.} FRIEDMAN, supra note 14, at 86-87.

^{56.} Id. at 87.

^{57.} See, e.g., Per-Martin Meyerson, Eurosclerosis: The Case of Sweden: A Critical Examination of Some Central Problems in the Swedish Economy and in Swedish Politics (Victor J. Kayfetz trans., 1985); Unemployment Policy: Government Options for the Labour Market (Dennis J.

arguably worse than the disease of industrial decay. Nowadays nation-states and smaller political units compete vigorously among each other for mobile citizens and corporations.⁵⁸ Subsidies, taxes, environmental and labor regulations, and government services profoundly affect decisions to build new facilities or relocate old ones.⁵⁹ Nation-states in a globalized economy arguably conduct a "race to the bottom" in an effort to avoid expelling fugitive capital.⁶⁰ If anything, governments target the least mobile for the few rents that can still be extracted through taxation.⁶¹

On the other hand, it is not always certain that jurisdictions will compete rather than cooperate. Sometimes nations, states, and even smaller political subdivisions will harmonize legal standards in the face of economic or technological change.⁶² Economic union fosters values cherished in constitutional law and in international law.⁶³ Any measures designed to soften globalization's impact must arise multilaterally. "[Given] the difficulty of government regulation of international economic be-

- 58. See, e.g., Dennis Mueller, Public Choice 126-27 (1979); George J. Stigler, Economic Competition and Political Competition, 13 Pub. Choice 91, 93 (1972); Charles M. Tiebout, A Pure Theory of Local Expenditures, 64 J. Pol. Econ. 416, 422 (1956).
- 59. See Roger Schmenner, Making Business Location Decisions 152 (1982); John R. Moore et al., The Efficacy of Public Policy, in Industry Location and Public Policy 257, 269 (Henry W. Herzog & Alan M. Schlottmann eds., 1991).
- 60. See, e.g., Jacob A. Frenkel, Assaf Razin & Efraim Sadka, International Taxation in an Integrated World 213-14 (1991); Robert Z. Lawrence, Albert Bressand & Takatoshi Ito, A Vision of the World Economy 31 (1996).
- 61. See William W. Bratton & Joseph A. McCahery, The New Economics of Jurisdictional Competition: Devolutionary Federalism in a Second-Best World, 86 Geo. L.J. 201, 233-34 (1997); David E. Wildasin & John D. Wilson, Imperfect Mobility and Local Government Behavior in an Overlapping-Generation Model, 60 J. Pub. Econ. 177, 180-81 (1996).
- 62. See Barry Friedman, Federalism's Future in the Global Village, 47 VAND. L. REV. 1441, 1448-53 (1994).
- 63. See Richard B. Collins, Economic Union as a Constitutional Value, 63 N.Y.U. L. Rev. 43 (1988).

Snower & Guillermo de la Dehesa eds. 1997); Stephen Nickell, Unemployment and Labor Market Rigidities, 11 J. Econ. Perspectives 55 (1997); see also McGinnis, supra note 24, at 921 ("The neglect of laissez-faire policies among continental members of the European Union is now so notorious that a new word—Eurosclerosis'—has been coined to describe the high unemployment and slow growth engendered by excessive regulation and taxation."). See generally David J. Gerber, The Transformation of European Community Competition Law?, 35 HARV. INT'L L.J. 97, 114-23 (1994) (describing how European law facilitated the rise of Eurosclerosis after the oil crisis of the 1970s).

havior . . . there is today hardly any subject that can be said to be effectively controlled by a single national sovereign."⁶⁴

Globalization is helping to dismantle a system of international relations that stems from the Peace of Westphalia in 1648.⁶⁵ For now the nation-state remains "the building block[] of international relations."⁶⁶ But citizenship in a globalized age hinges less on blood and soil and more on mind and toil. Those who describe nationalism as a spent force⁶⁷ hold the upper hand over detractors who predict that "[t]oday's regime of global *lais-sez-faire*" will collapse in the fashion of "the *belle époque* of 1870 to 1914, which ended in the trenches of the Great War."⁶⁸

To be sure, the more modest degree of globalization that prevailed at the turn of the twentieth century did not prevent World War I. Those who expected otherwise were tragically mistaken.⁶⁹ The difference today lies in the democratization of wealth. Nearly half of American families hold some stake in the stock market.⁷⁰ Stock-market participation in other wealthy, post-industrial countries is not much further behind.⁷¹ Canadi-

^{64.} John H. Jackson, Reflections on International Economic Law, 17 U. Pa. J. Int'l. Econ. L. 17, 24-25 (1996).

^{65.} See, e.g., Hans Kohn, The Idea of Nationalism 188 (1944); Mark Movsesian, The Persistent Nation State and the Foreign Sovereign Immunities Act, 18 Cardozo L. Rev. 1083, 1085 (1996); Daniel Philpott, Sovereignty: An Introduction and Brief History, 48 J. Int'l Aff. 353, 364 (1995). See generally C.V. Wedgwood, The Thirty Years War (1938).

^{66.} William Alonso, Citizenship, Nationality and Other Identities, 47 J. Int'l Aff. 585, 599 (1995).

^{67.} See, e.g., Francis Fukuyama, The End of History and the Last Man 271-75 (1992); Richard W. Perry, The Logic of the Modern Nation-State and the Legal Construction of Native American Tribal Identity, 28 Ind. L. Rev. 547, 559-60 (1995); cf. Philip P. Frickey, Domesticating Federal Indian Law, 81 Minn. L. Rev. 31, 77-78 (1996) (advocating the application of norms developed in the law of international human rights to questions of federal Indian law); William H. Lash III, The Decline of the Nation State in International Trade and Investment, 18 Cardozo L. Rev. 1011, 1011 (1996) ("I do not wish to praise the nation state, nor to bury it.").

^{68.} Gray, supra note 27, at 7.

^{69.} See Norman Angell, The Foundations of International Polity 54 (1914) (arguing that the "financial interdependence" which had arisen in Europe between 1871 and 1914 rendered war obsolete); J.D.B. Miller, Normal Angell and the Futility of War 9 (1986) (quoting a disciple of Angell who predicted in 1913 that the "ever threatening, ever impending" "Great War of Europe" would never come to pass).

^{70.} See David R. Francis, Stock Markets Win the Masses, Christian Sci. Monitor, March 25, 1998, at 1 (finding that 40% of American households have some direct or indirect stake in the stock market).

^{71.} See id. (reporting stock-ownership rates of 40.4% in Australia, 37% in Canada, and 26% in Great Britain); see also id. (reporting that China has 10 million owners of stock and India has 30 million).

ans have invested more heavily in foreign equity markets than in their own.⁷² These citizens, in turn, are exporting democratic values. Even where they are despised as scourges against local business interests, multinational corporations introduce investment capital and perhaps even moral values in countries that have yet to realize globalization's full benefits.⁷³ At the opposite end of the ideological spectrum, nongovernmental organizations have stepped into the power vacuum and contributed significantly to policing the morals of globalized society.⁷⁴

In medieval times, commercial transactions across national borders gave rise to *lex mercatoria*, a distinctive body of law governing relationships among merchants. Today, global mercantile practice provides even more. The Cold War troika of Oceania, Eastasia, and Eurasia has yielded to a new bilateral order: the globalized "McWorld" and its sworn foe, "Jihad." Thomas Friedman's hypothesis on world peace, the "Golden Arches Theory of Conflict Avoidance," held true for nearly half a century. Until NATO bombed Yugoslavia in 1999,79 no two countries with a McDonald's franchise had ever waged war on each other. Globalization's peace dividend deserves a name of its own: pax mercatoria.

Although globalization has surely created its share of losers, the class of winners in the post-Cold War era is vastly deeper and richer. Most economic propositions are contestable.⁸⁰ Com-

^{72.} See James Brooke, Is the Dollar Leaving Canada Feeling Drained?, N.Y. Times, Nov. 13, 1999, at B1, B4 (reporting the results of a study issued by Statistics Canada in August 1999).

^{73.} See, e.g., Robert T. Kudrle, No Entry: Sectoral Controls on Incoming Direct Investment in the Developed Countries, in Multinationals in the Global Political Economy 142 (Lorraine Eden & Evan H. Potter eds., 1992).

^{74.} See, e.g., Peter J. Spiro, New Global Potentates: Nongovernmental Organizations and the Marketplace, 18 Cardozo L. Rev. 957 (1996); A. Dan Tarlock, The Role of Non-Governmental Organizations in the Development of International Environmental Law, 68 Chi.-Kent L. Rev. 61 (1992).

^{75.} See Harold J. Berman, Law and Revolution: The Formation of the Western Legal Tradition 333-56 (1983); Theodore F.T. Plucknett, A Concise History of the Common Law 657-70 (5th ed. 1956); cf. Ingrid Michelsen Hillinger, The Article 2 Merchant Rules: Karl Llewellyn's Attempt to Achieve The Good, The True, The Beautiful in Commercial Law, 73 Geo. L.J. 1141 (1985) (describing Llewellyn's effort to update and reconstruct the law merchant as a part of 20th century commercial law).

^{76.} See George Orwell, Nineteen Eighty-Four (1948).

^{77.} See Benjamin R. Barber, Jihad vs. McWorld (1995).

^{78.} See Friedman, supra note 14, at 195-98.

^{79.} See Thomas Friedman, Was Kosovo World War III?, N.Y. TIMES, July 2, 1999, at A17.

^{80.} See generally D.N. McCloskey, The Rhetoric of Economics (1985).

parative advantage is not one of them. Globalization unequivocally shows that free trade enhances overall wealth.⁸¹ Incredibly, comparative advantage may actually *understate* the economic gains from free trade. "[S]tatic gains and losses" from legal efforts to shape private economic relations "are probably small compared to the historical gains in welfare resulting from innovation and productivity growth."⁸² The historical evidence confirms this suspicion: since 1820 global wealth has expanded tenfold, thanks largely to technological advances and the erosion of barriers to trade.⁸³

Nor can we reliably measure the positive impact of global trade on democratic institutions. Economically vibrant societies tend to favor and adopt beneficent legal institutions and policies. State Cheaper, easier access to channels of communication has empowered the heretofore oppressed and dispossessed. State Globalization has advanced democracy not only by raising overall wealth, but also by disciplining the rogue governments that can destroy wealth and freedom in one fell swoop. The ability of multinational corporations and skilled workers to "fight or

^{81.} See, e.g., Robert S. Pindyk & Daniel L. Rubenfeld, Microeconomics 597-99 (2d ed. 1992) (defining comparative advantage in terms of access to superior transportation, natural resources, and labor); cf., e.g., Strategic Trade Policy and the New International Economics 1, 7-8 (Paul R. Krugman ed. 1986) (distinguishing between natural "factor endowments" and human capital); Robert E. Hudec, Differences in National Environmental Standards: The Level-Playing-Field Dimension, 5 Minn. J. Global Trade 1, 21-22 (1996) (same). See generally Robert J. Carbaugh, International Economics 17-50 (5th ed. 1995); Christopher R. Drahozal, On Tarrives Versus Subsidies in Interstate Trade: A Legal and Economic Analysis, 74 Wash. U. L.Q. 1127, 1142-60 (1996).

^{82.} Paul L. Joskow & Nancy L. Rose, The Effects of Economic Regulation, in 2 Handbook of Industrial Organization 1449, 1484 (Richard Schmalensee & Robert D. Willig eds., 1989); see also Clifford Winston, Economic Deregulation—Days of Reckoning for Microeconomists, 31 J. Econ. Lit. 1263, 1268 (1993).

^{83.} See Angus Maddison, Monitoring the Global Economy, 1820-1992 (1995); McCloskey, supra note 14, at ____.

^{84.} See Milton Friedman, The Relation Between Economic Freedom and Political Freedom, in The Libertarian Reader: Classic and Contemporary Readings from Lao-Tzu to Milton Friedman 292 (David Boaz ed., 1997) (arguing that economic freedom fosters broadly applicable social norms that give rise in turn to political freedom); Thomas G. Moore, An Economic Analysis of the Concept of Freedom, 77 J. Pol. Econ. 532 (1969). But cf. Amy L. Chua, Markets, Democracy, and Ethnicity: Toward a New Paradigm for Law and Development, 108 Yale L.J. 1, 5-6 (1998) (observing that initial economic advances in developing countries tend to "foment[] ethnic envy and hatred" toward an economically dominant but politically disadvantaged minority).

^{85.} See Jack L. Goldsmith, Against Cyberanarchy, 65 U. Chi. L. Rev. 1199, 1237 (1999); Eugene Volokh, Cheap Speech and What It Will Do, 104 YALE L.J. 1805 (1995).

flight"⁸⁶ encourages governments to adopt transparent policies and to broaden political participation. Exit, as we should have suspected all along, is the *sine qua non* of voice and loyalty in firms, organizations, and nations.⁸⁷

B. THE SELFISH MEME

Beyond political economy and natural ecology, a new form of evolution is catching fire. Globalization facilitates the creation and exchange of "memes" as no other social phenomenon ever has. A "meme" is "a unit of cultural transmission," such as "tunes, ideas, catch-phrases, clothes fashions, ways of making pots or of building arches." The sociological equivalent of a gene, the meme as "a new kind of replicator" may "still [be] drifting clumsily about in its primeval soup, but already it is achieving evolutionary change at a rate that leaves the old gene panting far behind."

But globalization's very capacity to transmit culture is upsetting the balance of power among memes. Like every other "living thing," the meme is a selfish "imperialist, seeking to transform as much of its environment as it can into itself and its seed."90 The worldwide spread of certain memes threatens the viability of others. Many local cultures lose their distinctiveness; cultural diversity evaporates. The whole world looks as if it is "everywhere and nowhere" at once.91 Threatened losers court political support by arguing that unfettered free trade will make the world unbearably homogeneous. Again, the objection stems from globalization's tendency to trivialize place. Worse still, the rise of a global culture disrupts the traditional transmission of memes across generations, pitting child against parent. "There are now . . . tens of millions of teenagers around the world who . . . have a lot more in common with each other than they do with members of older generations in their own cultures."92

^{86.} Kent van de Graaf, Human Anatomy 399, 429 (2d ed. 1988); accord Dan L. Burk, Virtual Exit in the Global Information Economy, 73 Chi.-Kent L. Rev. 943, 944 (1998).

^{87.} See generally Albert O. Hirschman, Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States (1970).

^{88.} RICHARD DAWKINS, THE SELFISH GENE 192 (new ed. 1989).

^{89.} Id.

^{90.} Bertrand Russell, An Outline of Philosophy 30 (1974).

^{91.} George W.S. Trow, The Harvard Black Rock Forest, New Yorker, June 11, 1984, at 44.

^{92.} Kenichi Ohmae, The End of the Nation State: The Rise of Re-Gional Economies 15 (1995); hear also David Bowie, Young Americans, on

Much of the debate over globalization's cultural impact centers on two interrelated subjects, mass media and language. Lurking beneath these debates is diversity's sinister side. Human cultural diversity sometimes masks threats to democracy and decency. Globalization therefore poses a twofold challenge. Not only must legal actors seek to preserve desirable diversity in a world of cultural collapse; they must retain enough discretion to identify and eradicate destructive memes.

1. Speak locally, sell globally.

Rootlessness is at once the most striking and the most feared aspect of the American character. The great American hero is constantly chasing dreams "somewhere back in that vast obscurity beyond the city, where the dark fields of the republic roll[] on under the night."93 "O lost!"94 There are those who decry the "enforced lack of commitment to a place" among Americans.95 These wayward detractors point with evident pride at how even British workers, "more unsettled" than most of their European counterparts, "are twenty-five times less likely than American workers to move to a different region of the country."96 Criticism in this vein simply misunderstands the American soul. In America, it is the *losers* who stay put, who never leave their hometowns in pursuit of education, adventure or opportunity.97

Impatience and restlessness have literally made America great. In stark contrast with the planned economies of the socialist bloc and the crony corporatist states of east Asia, America has risen to economic dominance through technological and organizational innovation and the ruthless pruning of outmoded firms, industries, and institutions. Joseph Schumpeter called it "creative destruction." It is the wellspring of this country's

YOUNG AMERICANS (EMD/Virgin 1975); KIM WILDE, Kids in America, on Original Gold (Millenium Hits 1999).

^{93.} F. Scott Fitzgerald, The Great Gatsby 141 (Matthew J. Bruccoli ed., 1991) (1st ed. 1925).

^{94.} Thomas Wolfe, Look Homeward Angel, passim (1929).

^{95.} GRAY, supra note 27, at 112.

⁹⁶ *Id*

^{97.} See, e.g., Theodore Dreiser, An American Tragedy 269 (1953; 1st ed. 1925) ("[B]ecause of her innate imagination, she was always thinking of something better. Maybe, some day, who knew, a larger city like Albany or Utica! A newer and greater life."); Edith Wharton, Ethan Frome 13 (Alfred Kazin afterword, 1987) (1st ed. 1911) ("'Guess he's been in Starkfield too many winters. Most of the smart ones get away.").

^{98.} See Joseph A. Schumpeter, Capitalism, Socialism, and Democracy 81-86 (1942).

might. "Nothing in America [lasts]. If a product or enterprise doesn't constantly reinvent itself, it is superseded, cast aside, abandoned without sentiment in favor of something bigger, newer, and, alas, nearly always uglier." Coarser perhaps, but definitely richer.

In matters of mass media and pop culture, America rocks. Not only does the United States boast a large, monolingual market of wealthy, modestly literate consumers; the youth, tenuousness, and scarcity of its traditions make the American idiom the voice of choice for the world's cultural vagabonds. No other language, dialect, or accent so elegantly expresses fear and passion. The scale of the American market merely expresses a variation on the theme of network effects. The sheer number of consumers demanding a product can make it more valuable. America's justly envied social openness suggests that creative people pay a lower price to express themselves in the United States than anywhere else in the world. In cultural markets as in all others, higher profit margins coupled with lower costs of production usually translate into market dominance.

Hence spring the roots of anti-American resentment. Virtually every other nation on earth treats the United States as a cultural menace. But Canada and the European Union, not the former victims of Western colonialism and imperialism, are responsible for the sternest measures against American cultural exports. ¹⁰² Evolutionary theory readily explains the defensiveness of the United States' coziest cousins. Any naturalist understands that the fiercest competition for food and habitat comes from similar rather than dissimilar species. ¹⁰³ Or, to borrow a different biological metaphor, cultural intermingling leads to hybridization, which in cultural and biological settings alike can crimp reproduction. From either perspective, this much is undeniable: affinity with the United States renders Canada and Europe especially vulnerable to cultural conquest. Look homeward

^{99.} BILL BRYSON, A WALK IN THE WOODS: REDISCOVERING AMERICA ON THE APPALACHIAN TRAIL $104\ (1998)$.

^{100.} See generally Mark A. Lemley & David McGowan, Legal Implications of Network Economic Effects, 86 Cal. L. Rev. 479 (1998).

^{101.} See Marci A. Hamilton, Copyright and the Constitution (forthcoming 2000).

^{102.} See generally Samuel Huntington, The Clash of Civilizations and the Remaking of World Order 46-47 (1996) (defining the "West" as "Europe, North America, plus other European settler countries such as Australia and New Zealand" and "Western Civilization" as "Euroamerican or North Atlantic civilization").

^{103.} See Wilson, supra note 4, at 173-74.

Yankee: within NAFTA, Quebec fears its English-speaking compatriots at least as much as it fears the United States, while Mexico scarcely stirs amid North America's cultural trade wars. Anglophone Canada is America's closest cousin within the continental trade zone and therefore its unhappiest partner in cultural exchange.

It is hard to overstate how vigorously Canada and Europe have resisted American cultural imports. The European Union's Orwellian-sounding directive, "Television Without Frontiers," orders member-states to reserve at least half of all television airtime for programs of European origin. 104 One sympathetic commentator agrees "that Europe indeed suffers from a cultural crisis" and argues that the European Union should be given space to resist the "irreversible, deeply rooted changes" wrought by American cultural imports. 105

Canada has gone even further, augmenting its own content quotas with an extensive system of subsidies, discriminatory taxes, and discriminatory tax deductions. The World Trade Organization has condemned Canada's hard line against "splitrun" magazines with American content but Canadian advertising. Canadian resistance to American culture may be the hottest dispute — except those involving fish — across the

^{104.} Council Directive 89/522, 1989 O.J. (L 298) 23.

^{105.} Laurence G.C. Kaplan, Comment, The European Community's "Television Without Frontiers" Directive: Stimulating Europe to Regulate Culture, 8 EMORY INT'L L. REV. 255, 256 (1994).

^{106.} See generally Oliver R. Goodenough, Defending the Imaginary to the Death? Free Trade, National Identity, and Canada's Cultural Preoccupation, 15 ARIZ. J. INT'L & COMP. L. 203 (1998); Andrew M. Carlson, Note, The Country Music Television Dispute: An Illustration of the Tensions Between Canadian Cultural Protectionism and American Entertainment Exports, 6 MINN. J. GLOBAL TRADE 585 (1997); Amy E. Lehmann, Note, The Canadian Cultural Exemption Clause and the Fight to Maintain an Identity, 23 Syracuse J. Int'l L. & Commerce 187 (1997); Robin L. Van Harpen, Note, Mamas, Don't Let Your Babies Grow Up to Be Cowboys: Reconciling Trade and Cultural Independence, 4 MINN. J. GLOBAL TRADE 165 (1995).

^{107.} See Report of the Appellate Body in Canada — Certain Measures Concerning Periodicals, AB-1997-2, WT/DS31/AB/R (adopted June 30, 1997); Sean C. Aylward & Caroline M-L. Presber, Trade, Culture, and Competition: WTO Overturns Canada's Excise Tax on "Split-Run" Publications, 8 J. Int'l Tax'n 548 (1997); Aaron Scow, The Sports Illustrated Canada Controversy: Canada "Strikes Out" in Its Bid to Protect Its Periodical Industry from U.S. Split-Run Periodicals, 7 MINN. J. GLOBAL TRADE 245 (1998).

^{108.} See, e.g., Canada: Measures Affecting Exports of Unprocessed Herring & Salmon, GATT: Basic Instruments and Selected Documents 98 (35th Supp. 1989); In re Canada's Landing Requirements for Salmon & Herring, 12 Int'l Trade Rep. (BNA) 1026 (1991); James Brooke, The Walleye War: A Trade Dispute Roils the U.S. Canadian Border, N.Y. Times, Nov. 26, 1999, at C1, C5

world's longest undefended border. Canadians fear that an annual intake of 700 hours of American television is transforming their children into "unarmed American[s] with Medicare." Margaret Atwood laments Canada's cultural crisis:

Canada as a separate but dominated country has done about as well under the U.S. as women, worldwide, have done under men; about the only position they've ever adopted toward us, country to country, has been the missionary position, and we were not on top. I guess that's why the national wisdom vis-à-vis Them has so often taken the form of lying still, keeping your mouth shut, and pretending you like it. 110

2. Mother tongue.

Globalization is also assaulting human linguistic diversity. The "loss of cultural and intellectual diversity" that occurs when "politically dominant languages and cultures simply overwhelm indigenous local languages and cultures" poses risks akin to "the dangers inherent in the loss of biological diversity." Language does not merely serve as the primary transmission medium for memes; diversity among languages also generates new ideas and novel perspectives. The use of semantically significant tones in Sino-Tibetan languages, to name just one example, reportedly fosters perfect musical pitch. When a language dies, outsiders are left to imagine "the nature of things that have been lost and of what can be lost if linguistic and cultural diversity disappears." Half the world's 6,000 languages are expected to die out by the end of the twenty-first century. A

(describing a NAFTA-mediated dispute over Ontario rules restricting the taking of walleye and sauger fish by non-Canadian anglers in the Lake of the Woods). See generally Daniel A. Farber & Robert E. Hudec, Free Trade and the Regulatory State: A GATT's-Eye View of the Dormant Commerce Clause, 47 Vand. L. Rev. 1401, 1435 (1994) (discussing U.S.-Canada conflicts over salmon and other fishing interests).

- 109. Lehmann, supra note 106, at 200 (quoting a Canadian cultural critic).
 110. Frank E. Manning, Reversible Resistance: Canadian Popular Culture
- 110. Frank E. Manning, Reversible Resistance: Canadian Popular Culture and the American Other, in The Beaver Bites Back? American Popular Culture in Canada 4, 4 (David H. Flaherty & Frank E. Manning eds., 1993) (quoting Margaret Atwood).
- 111. Ken Hale, On Endangered Languages and the Safeguarding of Diversity, 68 Languages 1, 1 (1992); see also Michael Krauss, The World's Languages in Crisis, 68 Language 4, 4 (1992) ("Language endangerment is significantly comparable to and related to endangerment of biological species in the natural world.").
- 112. See James Glanz, Study Links Perfect Pitch to Tonal Language, N.Y. Times, Nov. 5, 1999, at A1.
- 113. Ken Hale, Language Endangerment and the Human Value of Linguistic Diversity, 68 Language 35, 40-41 (1992).
 - 114. See Krauss, supra note 111, at 6.

worst-case scenario projects "either the death or the doom of 90% of mankind's languages." ¹¹⁵

Even languages with extensive literary traditions and millions of speakers cannot completely resist the American steam-roller. To a German bemoaning American hegemony, linguistic diversity serves as the last bulwark against cultural homogenization. "Against rampant globalization, against all of these epidemics of our insane desire for unification," this critic argues, "no warning is as piercing" as the biblical story of the Tower of Babel. "Mankind should not yearn for the uniting of all peoples, for world government, for a universal language." In Europe as in the rest of the world, the chief culprit is the "cultural nerve gas" called television. Television as "vast wasteland," 118 so it seems, has a global rather than local footprint. In the most dystopian vision of the future, German, French, and Polish will be dimly remembered as "dead languages."

^{115.} Id. at 7.

^{116.} Rolf Hochhuth, *Deutsch? Bye-bye!*, DER SPIEGEL, March 16, 1998, at 271, 275 ("Gegen die weltweit marschierende Globalisierung, gegen alle diese Epidemien unseres Einheitswahns gibt es keine eindringlichere Warnung: Wir Menschen sollten nicht zur Vereinigung aller kommen wollen, zum Einheitsstat, zur Universalsprache.") (translation from the German by the author). For a legally and religiously literate exegesis of the Babel story (recounted at Genesis 11:1-9), see Harold J. Berman, *Law and Logos*, 44 DEPAUL L. REV. 143, 165 (1994).

^{117.} Krauss, supra note 111, at 6.

^{118.} The description of television as a "vast wasteland" is attributed to former FCC Chairman Newton Minow:

You will see a procession of game shows, violence, audience participation shows, formula comedies about totally unbelievable families, blood and thunder, mayhem, violence, sadism, murder, western badmen, western good men, private eyes, gangsters, more violence, and cartoons. And endlessly, commercials — many screaming, cajoling, and offending. And most of all, boredom.

Newton N. Minow, Address to National Association of Broadcasters (1961), quoted in Jonathan W. Emord, Freedom, Technology, and the First Amendment 198 (1991).

^{119.} See generally ROGER G. NOLL ET AL., ECONOMIC ASPECTS OF TELEVISION REGULATION 98-120 (1973) (describing American policymakers' failure to recognize that television markets are essentially national rather than local); Jim Chen, The Last Picture Show (On the Twilight of Federal Mass Communications Regulation), 80 Minn. L. Rev. 1415, 1443-50 (1996) (same).

^{120.} ALDOUS HUXLEY, BRAVE NEW WORLD 25 (1932). It may already be too late. Consider the following advertisement by Deutsche Telekom:

Hol Dir mit T-ISDN und T-Online Deine Hits in HiFi-Qualität online auf den PC — www.audio-on-demand.de ist die Homepage für den ultimativen MusikspaB. Auf diesen Websites findest Du auBerdem die aktuellsten News aus der Musikszene, viele Tips, neue Trends und wichtige Termine. Hör einfach mal rein. Der Internet-Musicshop ist natürlich Tag & Nacht geöffnet.

Although "the ability to use a natural language belongs more to the study of human biology than human culture," linguistic diversity is perhaps the truest measure of cultural diversity. "Language is not merely a learned ability, like dancing the foxtrot. Conversation around the tea table is what it is to be human." At a minimum, legal measures aimed at suppressing a minority language deserve condemnation under domestic law as discrimination. At worst, such measures can be genocidal. 124

Relative to the cultural claims pressed against American mass media, the preservation of linguistic diversity presents a far more compelling case for departing from free-trade norms. Measures designed to exclude American cultural imports tvpically fail to specify the essential local culture — Canadian, European, or other — that merits protection. Instead, these laws simply reserve chunks of the mass media market for preferred programmers. The FCC's recent decision to prescribe minimum levels of and standards for children's television, 125 extraordinary even by standards of American law, shows that it is possible to regulate content directly without resorting to measures based on the identity of a broadcaster or producer. 126 The preference for programmer-based measures suggests that cultural protection is really a pretext for securing a share of the entertainment market for local performers and programmers. "[I]n a world where information can be pulled or pushed from

A native speaker of American English hardly needs a translation from the "Neu-Deutsch."

^{121.} Steven Pinker & Paul Bloom, Natural Language and Natural Selection, in The Adapted Mind: Evolutionary Psychology and the Generation of Culture 451, 451 (Jerome H. Barkow et al. eds., 1992).

^{122.} Fortey, supra note 8, at 308 (emphasis in original).

^{123.} Cf. Hernandez v. New York, 500 U.S. 352, 354 (1991) ("[F]or certain ethnic groups and in some communities, proficiency in a particular language, like skin color, should be treated as a surrogate for race under equal protection analysis."); Lau v. Nichols, 414 U.S. 563, 568-69 (1974) (condemning under Title VI a public school system's failure to educate children whose native language is not English).

^{124.} See Convention on the Prevention and Punishment of the Crime of Genocide, 78 U.N.T.S. 277 (1948).

^{125.} See Final Rule: Children's Television, 61 Fed. Reg. 43,981 (Aug. 27, 1996). See generally Laurence H. Winer, Children Are Not a Constitutional Blank Check, in Rationales and Rationalizations: Regulating the Electronic Media 69 (Robert Corn-Revere ed., 1997) (criticizing the FCC's historical preference for content control over subsidies and incentives in shaping children's television programming).

^{126.} See Jim Chen, Diversity in a Different Dimension: Evolutionary Theory and Affirmative Action's Destiny, 59 Ohio St. L.J. 811, 841 (1998).

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every corner of the planet," the obsolete notion of "localism" bears no connection to "modern information services." Under no circumstances should regulation of the cultural marketplace become a corrupt "jobs program for favored broadcasters." In the international context as in domestic law, "structural regulation of mass communications" has generated and secured local "managerial jobs without improving the diversity or quality of broadcast speech." 129

In other words, Canada and the European Union have championed quotas, set-asides, and other forms of affirmative action for domestic programmers in the name of cultural diversity. Iso Ironically, this war on American popular culture borrows heavily from American legal discourse. Casual conversation and careless scholarship throughout the United States have transmogrified "diversity" into a dishonest synonym for racial preferences in hiring, government contracting, and school admissions. Iso empty has the term "diversity" become that the Virginia Military Institute was able temporarily to justify its exclusion of women on that basis. Iso European Union have

^{127.} Glen O. Robinson, The Electronic First Amendment: An Essay for the New Age, 47 Duke L.J. 899, 942-43 (1998).

^{128.} Chen, supra note 119, at 1482.

^{129.} Id. at 1487.

^{130.} See Chen, supra note 126, at 846-48.

^{131.} See Lutheran Church-Missouri Synod v. FCC, 141 F.3d 344, 356 (D.C. Cir. 1998) (remarking "how much burden the term 'diversity' has been asked to bear . . . in the United States," not only "as a permanent justification for policies seeking racial proportionality in all walks of life" but also "as a synonym for proportional representation itself"); Jim Chen, Diversity and Damnation, 43 UCLA L. Rev. 1839, 1849 (1996) ("Everybody talks about diversity, but no one knows what it means."); Chen, supra note 126, at 828 ("No one has offered a meaningful definition of diversity"); cf. Eugene Volokh, Diversity, Race as Proxy, and Religion as Proxy, 43 UCLA L. Rev. 2059, 2059 (1996) ("[Diversity] is not based on controversial views of compensation for past discrimination. It does not require a different level of justification for programs that disadvantage whites than for programs that disadvantage minorities. It does not even require a social consensus about the magnitude of present discrimination.").

^{132.} Compare United States v. Virginia, 976 F.2d 890, 899 (4th Cir. 1992) (describing VMI's "desire for educational diversity"), cert. denied, 508 U.S. 946 (1993) and Mississippi Univ. for Women v. Hogan, 458 U.S. 718, 745 (1982) (Powell, J., dissenting) (defending single-sex education as an expression of "respect for diversity") with United States v. Virginia, 518 U.S. 515, 539 (1996) (rejecting VMI's diversity claim) and Bennett L. Saferstein, Note, Revisiting Plessy at the Virginia Military Institute: Reconciling Single-Sex Education with Equal Protection, 54 U. Pitt. L. Rev. 637, 656 (1993) (describing VMI's invocation of "diversity" as "a clever rhetorical device" designed to exploit "positive, politically correct connotations").

of crying "racial wolf!" ¹³³ In a world where university students and their teachers are far richer than "the wretched of the earth," ¹³⁴ "diversity" should denote far more than a cry for identity-based patronage by any means necessary. ¹³⁵ Almost any other cause would be worthier. ¹³⁶

At this point globalization comes to the rescue as *deus ex machina*. What the loss of linguistic or biological diversity means is the death of a language or a species. The cultural equivalent is called genocide. Properly understood, "diversity" is the understated counterpoint to what is truly at stake: violent assassination, permanent extinction. Perhaps it is time to confine the term "diversity" to those extraordinary circumstances in which a significant gene or meme faces a realistic prospect of utter erasure.

3. Of transcendent truth and the Taliban.

A third front in the battle between globalization and incumbent memes marks the frontier of the extinction metaphor. Against secular globalism, traditional religion hardly has a prayer. Profits are pounding the prophets. Within the United States, many a minority religion confronted with a crushing legal burden invokes the right to free exercise. Compulsory education would annihilate the Amish;¹³⁷ education among *goyim* would harass the Hasidim into destructive assimilation.¹³⁸ Native American religions challenge peyote prohibitions¹³⁹ and protest the destruction of tribal cemeteries.¹⁴⁰ Claims of religious and linguistic diversity often converge: "Because Native religions depend on the oral tradition for their transmission, the

^{133.} Cf. generally John Hart Ely, The Wages of Crying Wolf: A Comment on Roe v. Wade, 82 Yale L.J. 920 (1973).

^{134.} Mark A. Graber, The Clintonification of American Law: Abortion, Welfare, and Liberal Constitutional Theory, 58 Ohio St. L.J. 731, 818 (1998).

^{135.} See Paul D. Carrington, Diversity!, 1992 UTAH L. REV. 1105.

^{136.} See Chen, supra note 126, at 906, 908 (describing American legal academia's obsession with affirmative action as "a colossal waste" and a "ridiculous misallocation of scarce resources").

^{137.} See Wisconsin v. Yoder, 406 U.S. 205 (1972).

^{138.} See Board of Educ. of Kiryas Joel Village School Dist. v. Grumet, 510 U.S. 1107 (1994).

^{139.} See Employment Div. v. Smith, 494 U.S. 872 (1990).

^{140.} See Lyng v. Northwest Indian Cemetery Protective Ass'n, 485 U.S. 439 (1988); see also Sarah B. Gordon, Note, Indian Religious Freedom and Governmental Development of Public Lands, 94 YALE L.J. 1447, 1448 (1985) ("Adherents of traditional Indian religions claim that development of certain areas threatens their religions with extinction." (footnote omitted)).

death of a language often means the death of a religion."¹⁴¹ The plausibility of an extinction claim can prove decisive: though the Amish successfully resisted compulsory education, they lost their claim that refusing Social Security benefits should exempt them from Social Security taxes. ¹⁴² Whereas the Social Security scheme imposed a mere "inconvenience," at most "unfairness," compulsory education posed a "serious[]" threat to their way of life. ¹⁴³

But not every claim rooted in religion deserves legal protection. Consider three possibilities, in increasing order of their offensiveness to the international order. First, frustrated by the Supreme Court's refusal to permit the teaching of so-called "creation science" in public schools, ¹⁴⁴ Kansas officials have removed Darwin's theory of evolution from the curricular requirements for that state's public schools. ¹⁴⁵ In a similar spirit, Alabama has ordered its public school textbooks to display a disclaimer devaluing evolution's scientific significance. ¹⁴⁶ Second, although federal ¹⁴⁷ and state ¹⁴⁸ laws ban female genital mutilation, neither the United States nor most other Western nations have consistently prosecuted the African immigrants who perpetuate this practice. ¹⁴⁹ Finally, the Taliban regime has

^{141.} Mark A. Michaels, Indigenous Ethics and Alien Laws: Native Traditions and the United States Legal System, 66 FORDHAM L. Rev. 1565, 1571 (1998).

^{142.} See United States v. Lee, 455 U.S. 252 (1982).

^{143.} Fred P. Bosselman, Extinction and the Law: Protection of Religiously-Motivated Behavior, 68 Chi-Kent L. Rev. 15, 28 (1992).

^{144.} See Edwards v. Aguillard, 482 U.S. 578, 591-92 (1987) (describing "creation science" as an attempt to shroud religious doctrine in scientific garb).

^{145.} See Pam Belluck, Board for Kansas Deletes Evolution from Curriculums, N.Y. Times, Aug. 12, 1999, at A1.

^{146.} See id.

^{147.} See Federal Prohibition of Female Genital Mutilation Act, 8 U.S.C.A. §§ 116(a), 1374 (West Supp. 1999); cf. Abankway v. INS, 185 F.3d 18 (2d Cir. 1999) (upholding a Ghanian's petition for refugee status based on her reasonable fear of being subjected to genital mutilation). See generally Khadijah F. Sharif, Note, Female Genital Mutilation: What Does the New Federal Law Really Mean?, 24 FORDHAM URB. L.J. 409 (1997).

^{148.} See, e.g., Cal. Penal Code § 273.4 (West Supp. 1998); Minn. Stat. Ann. § 609.2245 (West Supp. 1998).

^{149.} See Doriane Lambelet Coleman, Individualizing Justice Through Multiculturalism: The Liberals' Dilemma, 96 Colum. L. Rev. 1093, 1111-13 (1996) (describing prosecutions of female genital mutilation cases as relatively rare). See generally Michael Fischer, The Human Rights Implications of a "Cultural Defense," 6 S. Cal. Interdiscip. L.J. 663 (1998); Adam Karp, Note, Genitorts in the Global Context: Female Genital Mutilation as a Tort under the Alien Tort Claims Act, the Torture Victim Protection Act, and the Foreign Sovereign Immunities Act, 18 Women's Rts. L. Rep. 315 (1997). Alice Walker is credited with

systematically removed women from all aspects of public life in Afghanistan.¹⁵⁰

Creationism, female genital mutilation, and Taliban-style theocracy are all distinctive memes whose destruction would reduce the total amount of cultural diversity. Yet few critics of globalization, even those who vigorously advocate language laws and programming quotas, would defend these religiously rooted memes. Hostility to religion in certain elite circles provides no defensible basis for evaluating memes.¹⁵¹ How then can globalized society draw principled distinctions in crafting legal responses to potentially undesirable memes? Why do the norms underlying globalization seem more willing to tolerate a craving for creationism than the terrors of the Taliban?

The answer lies in these memes' variable levels of toxicity. If misguided American school boards want to inflict an inferior education on their children, so be it.¹⁵² Never mind Charles Darwin's disbelief at the prospect "that all [the] facts [supporting evolution] should speak falsely."¹⁵³ At worst, such fatuousness will merely delude gullible foreigners into believing that "America's secular traditions are weaker than Turkey's."¹⁵⁴ The very real fear of competitive disadvantage in a scientifically intense world will correct this folly soon enough.¹⁵⁵

By contrast, a small but palpable number of Western commentators advocate a "cultural difference" defense in criminal

introducing this subject to a wider American audience. See Alice Walker, Possessing the Secret of Joy (1992); Alice Walker & Prathiba Parmar, Warrior Masks: Female Genital Mutilation and the Sexual Blinding of Women (1993).

^{150.} See generally Marjon E. Ghasemi, Islam, International Human Rights and Women's Equality: Afghan Women Under Taliban Rule, 8 S. Cal. Rev. L. & Women's Stud. 445 (1999).

^{151.} See Stephen L. Carter, The Culture of Disbelief: How American Law and Politics Trivialize Religious Devotion 1-11, 23-24 (1993) (noting widespread hostility to religion in most American intellectual circles).

^{152.} *Cf.* San Antonio Indep. School Dist. v. Rodriguez, 411 U.S. 1, 35-36 (1973) (refusing to recognize education as a fundamental right under American constitutional law).

^{153.} Charles Darwin, The Descent of Man and Selection in Relation to Sex 630 (2d ed. 1874).

^{154.} Gray, supra note 27, at 126 (reacting to a British news report on a proposed "constitutional amendment that could make the teaching of creationism in American schools mandatory").

^{155.} See, e.g., Robert E. Hemenway, The Evolution of a Controversy in Kansas Shows Why Scientists Must Defend the Search for Truth, Chron. Higher Educ., Oct. 29, 1999, at B7 (article by the chancellor of the University of Kansas).

law.¹⁵⁶ Such a defense might be broad enough to shield female genital mutilation.¹⁵⁷ A cultural difference defense is justified, at least in its advocates' eyes, as a stopgap enabling recent immigrants to integrate more successfully.¹⁵⁸ One need not support this position to recognize that Western liberalism, the political order friendliest to globalization, gives the cultural difference defense its very air supply.¹⁵⁹

At the other extreme, the international human rights community has roundly condemned the Taliban, ¹⁶⁰ precisely because that group has eliminated any prospect that Afghan women can ever defend their rights in a remotely democratic fashion. The concept of representation-reinforcement, so familiar in American constitutional theory, ¹⁶¹ explains this response. The international community can tolerate memes that preserve the essential political and economic mechanisms by which memes compete for attention and transmission to future generations. Memes that more insidiously corrode their victims' ability to respond through the usual markets for ideas and votes deserve far less patience.

Except in those rare instances, if any, where rival species pose an overriding threat to humanity's survival, 162 ecological

^{156.} See, e.g., Nancy S. Kim, The Cultural Defense and the Problem of Cultural Preemption: A Framework for Analysis, 27 N.M. L. Rev. 101 (1997); Note, The Cultural Defense in the Criminal Law, 99 Harv. L. Rev. 1293 (1986); cf. Leti Volpp, (Mis)identifying Culture: Asian Women and the "Cultural Defense," 17 Harv. Women's L.J. 57, 59 (1994) (rejecting "the formalization of a 'cultural defense'" and advocating in its place "a commitment towards ending all forms of subordination" when courts engage in "the informal use of cultural information on behalf of a defendant in a given case").

^{157.} See, e.g., Deborah M. Boulette Taylor, Paying Attention to the Little Man Behind the Curtain: Destroying the Myth of the Liberal's Dilemma, 50 ME. L. Rev. 446, 462-65 (1998). But see Karen Hughes, The Criminalization of Female Genital Mutilation in the United States, 4 J.L. & Poly 321, 326-27 (1995) (opposing the recognition of a "cultural defense" for this practice).

^{158.} See Doriane Lambelet Coleman, The Seattle Compromise: Multicultural Sensitivity and Americanization, 47 DUKE L.J. 717 (1998); cf. Holly Maguigan, Will Prosecutions For "Female Genital Mutilation" Stop The Practice in The U.S.?, 8 Temp. Pol. & Civ. Rts. L. Rev. 391 (1999) (opposing the prosecution of female genital mutilation under existing statutes as well as the creation of special statutes targeting the practice).

^{159.} For what it is worth, I disagree emphatically with those commentators who would shield female genital mutilation from domestic criminal law or the international law of human rights.

^{160.} See U.N. Sec. Council Res. 1214, S/RES/1214 (Dec. 8, 1998).

^{161.} See generally John Hart Ely, Democracy and Distrust: A Theory of Judicial Review (1980).

^{162.} Cf. Endangered Species Act of 1973, § 3(6), 16 U.S.C. § 1532(6) (1994) (excluding from the definition of "endangered species," and therefore from legal

diversity approximates an unmitigated good. Human cultural diversity does not. Many of the memes that contribute to today's cultural diversity arose under social conditions we can no longer tolerate: "It took oppressive political and social systems, rife with many evils, to create the rich soil in which many of our greatest works of art could grow: slavery and despotism . . . , obscene differences in living standards . . . and a huge amount of ignorance."163 Despite their undemocratic pedigrees, many memes can peacefully coexist with pax mercatoria. Others cannot. Toxic memes deserve no shelter from the hostile winds of globalization. Nor should we, in the name of shielding human cultural diversity, condone memes that infringe inalienable, internationally recognized human rights. A religious faith, cultural tradition, or any other human institution, "like a species, must evolve or go extinct when the environment changes."164 Global society is "obliged, reluctantly, to [contain] or disarm" any jihad designed to preserve "only the purest and wildest strain of [a contested] heritage."165

C. The Ecosystem Ethic

The notion of a "golden age" is perhaps the oldest myth in Western environmentalism. Jean-Jacques Rousseau idealized the preindustrial victims of European colonization as "noble savages," living in perfect harmony with nature and wholly innocent of civilization's injustices. ¹⁶⁶ Such romanticism, alas, did not end with James Fenimore Cooper. Contemporary critics of NAFTA, for instance, openly describe that treaty's environmental concerns as a pitched battle between evil Anglo industrialism and virtuous Mexican traditionalism:

protection, "a species of the Class Insecta determined . . . to constitute a pest whose protection . . . would present and overwhelming and overriding risk to man"). But cf. National Ass'n of Home Builders v. Babbitt, 130 F.3d 1041 (D.C. Cir. 1997) (upholding protection under the Endangered Species Act for the Delhi Sands Flower-Loving Fly), cert. denied, 118 S. Ct. 2340 (1998). This entomological obsession ignores himanity's more serious foes in the viral and microbial worlds. See generally Laurie Garrett, The Coming Plague: Newly Emerging Diseases in a World out of Balance (1994).

^{163.} Dennett, supra note 9, at 514.

^{164.} Id. at 516.

^{165.} Id. ("[W]e will do our best to disable the memes [you] fight for.").

^{166.} See Jean-Jacques Rousseau, Discourse on the Origin of Inequality (Franklin Philip trans. & Patrick Coleman ed., 1994). See generally Philip P. Frickey, Marshalling Past and Present: Colonialism, Constitutionalism, and Interpretation in Federal Indian Law, 107 Harv. L. Rev. 381 (1993) (assessing the enduring legal legacy of colonialism in North America).

[T]he most effective control over the predatory incursions of large, agro-industrial enterprises, oil exploration and refineries, and tourist meccas that are the principal cause of most of the current environmental deterioration, could be exercised by small plot cultivators and artisans who draw on centuries of experience and knowledge in their exploitation of resources. 167

This simplistic view is the environmental equivalent of "racial fundamentalism": "Dark skin good, white skin bad."¹⁶⁸ It is also dead wrong. The mirage of a golden age stems from the foulest of environmental fallacies, "forgetting that we live, after all, in a 'fallen world.'"¹⁶⁹ A cold survey of environmental disasters, from wildlife extermination on New Zealand and Madagascar to habitat destruction in Anasazi country and on Easter Island, shows that the propensity to destroy the environment flourishes in any cultural setting.¹⁷⁰

In other words, neither globalization nor the economic growth it has spurred can bear all the blame for today's environmental degradation. Real and imagined conflicts with environmental protection, however, probably inspire more litigation and literature than any other aspect of free trade. The extensive commentary on the "race to the bottom" in environmental standards mirrors the debate over free trade's impact on wages and labor conditions. The hypothesis is simple enough: "Given the mobility of industry and commerce, any individual state or community may rationally decline unilaterally to adopt high environmental standards that entail substantial costs for industry and obstacles to economic development for fear that the resulting environmental gains will be more than offset by movement of capital to other areas with lower standards." 171

^{167.} June Nash, The Challenge of Trade Liberalization to Cultural Survival on the Southern Frontier of Mexico, 1 Ind. J. Global Legal Stud. 367, 370 (1994).

^{168.} Jim Chen, Unloving, 80 Iowa L. Rev. 145, 156 (1994).

^{169.} Elizabeth Mensch & Alan Freeman, The Politics of Virtue: Animals, Theology and Abortion, 25 Ga. L. Rev. 923, 961 (1991); see also Donald Worster, Nature's Economy: A History of Ecological Ideas 115-29 (1988) (noting how observers as Charles Darwin, Herman Melville, and Henry David Thoreau recognized the moral ambivalence of nature).

^{170.} See Jared Diamond, The Third Chimpanzee: The Evolution and Future of the Human Animal 317-38 (1992). See generally, e.g., Patrick V. Kirch, The Evolution of Polynesian Cheifdoms (1984) (describing the deforestation of Easter Island); A. Grant Anderson, Mechanics of Overkill in the Extinction of New Zealand Moas, 16 J. Archaeol. Sci. 137 (1989).

^{171.} Richard B. Stewart, Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy, 86 Yale L.J. 1196, 1212 (1977); see, e.g., Natural Resources Defense Council, Inc. v. Train, 510 F.2d 692, 709 (D.C. Cir. 1975); Kirsten H. Engel, State Environmental Policy State

At an extreme, the race to the bottom argument posits that free trade is incompatible with environmental integrity and leads to an inexorable degradation of standards. Localities within the United States evidently do lower their environmental standards in an effort to lure businesses from localities with more stringent standards. But to the extent that workers and local governments understand that they can accept slightly lower wages in exchange for relatively stringent environmental protection, competition among jurisdictions need not harm the environment. Richard Revesz¹⁷⁵ and Robert Hudec¹⁷⁶ have concluded that the gains from trade outweigh the relatively modest advantage from lower environmental standards.

Two other extensive bodies of law and commentary focus on the legal restraints on the extraterritorial application of domestic environmental standards and on trade that in itself harms the environment. Both of these subjects concern the adoption and interpretation of multilateral trade agreements. The United States' decision to apply the Marine Mammal Protection Act of 1972¹⁷⁷ to the tuna fishing fleets of other nations yielded

172. See Herman Daly, From Adjustment to Sustainable Development: The Obstacle of Free Trade, 15 Loy. L.A. Int'l. & Comp. L.J. 33, 36 (1992).

173. See Peter P. Pashigan, Environmental Regulation: Whose Self-Interests Are Being Protected?, 23 Econ. Inquiry 551 (1985).

174. See Wallace E. Oates & Robert M. Schwab, Economic Competition Among Jurisdictions: Efficiency Enhancing or Distortion Inducing?, 35 J. Pub. Econ. 333, 336 (1988).

175. See Richard L. Revesz, Rehabilitating Interstate Competition: Rethinking the "Race to the Bottom" Rationale for Federal Environmental Regulation, 67 N.Y.U. L. Rev. 1210 (1992); Richard L. Revesz, Federalism and Interstate Environmental Externalities, 144 U. Pa. L. Rev. 2341, 2410 (1996); Richard L. Revesz, Federalism and Environmental Regulation: A Normative Critique, in The New Federalism: Can the States Be Trusted? 97 (John Ferejohn & Barry R. Weingast eds., 1997); Richard L. Revesz, The Race to the Bottom and Federal Environmental Regulation: A Response to Critics, 82 Minn. L. Rev. 535 (1997).

176. See Hudec, supra note 81.

177. Pub. L. No. 92-522, 86 Stat. 1072 (codified as amended in scattered sections of 16 U.S.C.); see also Marine Mammal Protection Act Amendments of

tal Standard-Setting: Is There a "Race" and Is It "to the Bottom"?, 48 Hastings L.J. 271 (1997); Daniel C. Esty, Revitalizing Environmental Federalism, 95 Mich. L. Rev. 570 (1996); Joshua D. Sarnoff, The Continuing Imperative (But Only from a National Perspective) for Federal Environmental Protection, 7 Duke Envil. L. & Pol'y F. 225 (1997); Peter P. Swire, The Race to Laxity and the Race to Undesirability: Explaining Failures in Competition Among Jurisdictions in Environmental Law, 14 Yale J. on Reg. 67 (1996). See generally John Douglas Wilson, Capital Mobility and Environmental Standards: Is There a Theoretical Basis for a Race to the Bottom?, in 1 Fair Trade and Harmonization: Prefequisites for Free Trade? 393 (Jagdish N. Bhagwati & Robert E. Hudec eds., 1996) (describing the race to the bottom in economic terms).

two prominent GATT decisions.¹⁷⁸ Both of these "tuna/dolphin" cases turned on the interpretation of available exceptions to free trade under article XX of GATT.¹⁷⁹ In 1998 the WTO disapproved the American ban on shrimp harvested by fishing boats that fail to use "turtle excluder devices," even though that restriction was applied to domestic and foreign harvesters alike.¹⁸⁰ As for trade in environmentally harmful goods, the international community has agreed to restrict the transboundary movement of hazardous wastes¹⁸¹ and trade in endangered species.¹⁸²

As humans subdue the last of earth's remaining ecosystems, however, there may be no set of environmental concerns more pressing than the depletion and destruction of the global commons. Climate change, ozone depletion, and habitat alteration

^{1988,} Pub. L. No. 100-7111, 102 Stat. 4755; Marine Mammal Protection Act Amendments of 1990, Pub. L. No. 101-627, 104 Stat. 4467.

^{178.} See United States: Restrictions on Imports of Tuna, GATT Doc. DS21/R (1992), compiled in GATT: Basic Instruments and Selected Documents 155 (39th Supp. 1993); United States: Restrictions in Imports of Tuna, 33 I.L.M. 1397 (1994); see also Earth Island Inst. v. Mosbacher, 785 F. Supp. 826, 832-33 (N.D. Cal. 1992) (interpreting the MMPA to prohibit all tuna imports from countries purchasing tuna from other countries not complying with the statute's restrictions on purse seines), vacated sub nom. Earth Island Inst. v. Brown, 17 F.3d 1241 (9th Cir. 1994). See generally Steven Charnowitz, Green Roots, Bad Pruning: GATT Rules and Their Application to Environmental Trade Measures, 7 Tul. Envtl. L.J. 299, 335-43 (1994) (examining the first tuna/dolphin decision); Steven Charnovitz, Dolphins and Tuna: An Analysis of the Second GATT Panel Report, 24 Envtl. L. Rep. 10,567 (1994).

^{179.} See General Agreement on Tariffs and Trade, art. XX, Oct. 30, 1947, 61 Stat. 1411, 1460, 55 U.N.T.S. 187, 262 (permitting exceptions to free trade principles, inter alia, to the extent "necessary to protect...human, animal or plant life or health" or needed for "the conservation of exhaustible natural resources"). See generally Padideh Ala'i, Free Trade or Sustainable Development? An Analysis of the WTO Appellate Body's Shift to a More Balanced Approach to Trade Liberalization, 14 Am. U. Int'l L. Rev. 1129 (1999).

^{180.} See Report of the Panel on United States: Import Prohibition of Certain Shrimp & Shrimp Prods., 37 I.L.M. 832 (1998); see also Earth Island Inst. v. Christopher, 890 F. Supp. 1085 (Ct. Int'l Trade 1995) (applying the requirement of turtle excluder devices under 16 U.S.C. § 1537 (1994) to domestic and foreign shrimping boats). See generally Susan L. Sakmar, Free Trade and Sea Turtles: The International and Domestic Implications of the Shrimp-Turtles Case, 10 Colo. J. Int'l Envil. L. & Pol'y 345 (1999).

^{181.} See Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 28 I.L.M. 657 (1989) (entered into force May 5, 1992); Bamako Convention on the Ban of Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa, 30 I.L.M. 775 (1991) (concluded Jan. 29, 1991; not in force).

^{182.} See Convention on International Trade in Endangered Species of Wild Fauna and Flora, 993 U.N.T.S. 243, 27 U.S.T. 1087, T.I.A.S. No. 8249, 12 I.L.M. 1085 (1973) (entered into force July 1, 1975).

and the attendant loss of biodiversity constitute top environ-The international community has remental priorities. 183 sponded decisively to the threat posed by chlorofluorocarbons and other ozone-depleting substances. 184 It remains to be seen whether multilateral efforts to reduce greenhouse gas emissions enjoy comparable success. 185 All the while, polar ice continues to melt. 186 The hydrosphere, from the world's diminishing fresh water reserves 187 to the devastated ocean fishery, 188 epitomizes the tragedy of the commons. Overfishing has destroyed the commercial viability of at least half of the world's fish stocks. In the United States, some 45 percent of fish stocks are overfished; the populations of some species have fallen below 10 percent of optimum levels. 189 Our inability to ascertain safe harvest levels for even intensely studied fish stocks undermines our confidence in the evidently illusory notion of "sustainable" fishing. 190 The crisis is all the more pressing in a world of shaky food security, 191 which itself is destabilized further by global warming. 192

^{183.} See Environmental Protection Agency, Science Advisory Bd., Reducing Risk: Setting Priorities and Strategies for Environmental Protection 13 (1990).

^{184.} See Montreal Protocol on Substances That Deplete the Ozone Layer, 26 I.L.M. 1550 (1987) (entered into force Jan. 1, 1989); Adjustments and Amendments to the Montreal Protocol on Substances That Deplete the Ozone Layer, 32 I.L.M. 874 (1993) (adopted at Copenhagen Nov. 23-25, 1992).

^{185.} See Kyoto Protocol to the United Nations Framework Convention on Climate Change (Dec. 10, 1997); Unived Nations Framework Convention on Climate Change, 31 I.L.M. 849 (1992) (entered into force March 21, 1994).

^{186.} See D.M. Johannessen et al., Satellite Evidence for an Arctic Ice Cover in Transformation, 286 Science 1937 (1999); K. Y. Vinnikov et al., Global Warming and Northern Hemisphere Sea Ice Extent, 286 Science 1934 (1999).

^{187.} See generally Stephen McCaffrey, The Coming Fresh Water Crisis: International Legal And Institutional Responses, 21 Vt. L. Rev. 803 (1997).

^{188.} See generally H. Scott Gordon, The Economic Theory of a Common-Property Resource: The Fishery, 62 J. Pol. Econ. 124 (1954).

^{189.} See Bob Holmes, Biologists Sort the Lessons of Fisheries Collapse, 264 Science 1252 (1994).

^{190.} See Donald Ludwig et al., Uncertainty, Resource Exploitation, and Conservation: Lessons from History, 260 Science 17 (1993). See generally Michael Harris, Lament for an Ocean: The Collapse of the Atlantic Cod Fishery (1998).

^{191.} See generally Luther Tweeten, Dodging a Malthusian Bullet in the 21st Century, 14 Agribusiness 15 (1998).

^{192.} Compare Herman Daly, Ecological Economics, 254 SCIENCE 358 (1991) (arguing that the inelasticity of demand for food counsels more circumspect assessment of the agricultural component of global warming's economic impact) with Jesse H. Ausubel, Does Climate Still Matter?, 350 Nature 649 (1991) (noting that plant cultivars are replaced every seven to ten years and that the effects of global climate change sometimes offset each other, as in the case of drought versus higher atmospheric levels of carbon).

The breadth and depth of these threats to the commons puts the extinction crisis in its proper context. The stunning and ongoing decline in biological diversity not only contributes to but also dramatizes the larger, deeper phenomenon of environmental destruction through human activity. This lesson has never been clearer. Several high-profile extinctions coincided roughly with the final stages of European conquest and colonization. The most notorious extinctions of the belle époque — Carolina parakeet, passenger pigeon, greater auk, quagga - pointed an accusing finger at the excesses of Edwardian society and the Industrial Revolution. But this stylized version of Joseph Conrad's Heart of Darkness¹⁹³ treats mass extinction solely as the product of hunter's vanity. Though overharvesting surely pushes many species to extinction, we now understand that habitat destruction and the proliferation of exotic species 194 pose far greater threats to biodiversity. As we struggle to master environmental protection as a learning experience. 195 we are only beginning to understand how an "Evil Quartet" of extermination mechanisms — overkill, habitat destruction, introspecies, and secondary extinctions — destroys biodiversity. 196 We often fail to perceive the threat to a species until it is too late. 197 Nor is the pressure evenly distributed. Biodiversity's "hot spots," where the greatest proportion of the world's threatened and endangered species live, are disproportionately located on islands, in tropical rainforests, and in coral reefs. 198 And speaking of heat, global warming may be delivering the most devastating blow of all. 199

Just how destructive is the human steamroller? During the twentieth century, mammals and birds died out 40 to 400 times

^{193.} See Joseph Conrad, Heart of Darkness (Verlyn Klinkenborg ed., 1993) (1st ed. 1902).

^{194.} See Ian Atkinson, Introduced Animals and Extinctions, in Conservation for the 21st Century 54 (David Western & Mary C. Pearl eds., 1989).

^{195.} See generally Daniel A. Farber, Environmental Protection as a Learning Experience, 27 Loy. L.A. L. Rev. 791 (1994).

^{196.} See Jared Diamond, "Normal" Extinctions of Isolated Populations, in Extinctions 191 (M.H. Nitecki ed., 1984); Jared Diamond, Overview of Recent Extinctions, in Conservation for the 21st Century, supra note 194, at 37, 39-41.

^{197.} See National Research Council, Science and the Endangered Species Act 170-85 (1995).

^{198.} See Wilson, supra note 4, at 259-71.

^{199.} See Robert L. Peters, Conservation of Biological Diversity in the Face of Climate Change, in Global Warming and Biological Diversity 15, 21-22 (Robert L. Peters & Thomas E. Lovejoy eds., 1992).

faster than they would have in the absence of human contact. The disaster is even more extensive if the body count stretches beyond the charismatic species that humans typically notice. Because biologists have not established an exact census of species, "[t]here is no way to measure the absolute amount of biological diversity vanishing year by year." Edward Wilson nevertheless offers his "most conservative estimate" of the current extinction rate from rainforest destruction alone: 27,000 species per year — 74 per day or three per hour. This rate is four orders of magnitude faster than estimates of extinction rates over geological time — two species per year since the beginning of the Cambrian period 590 million years ago. 203

A focus on top-level ecological crises subtly alters our view of the precise relationship between trade and the environment. Globalization's environmental impact does not consist of a one-to-one, linear exchange between trade liberalization and increased pollution, but rather a cluster of interrelated threats to global ecology. In an exquisitely tangled world, incremental efforts to tweak the law of international trade are "second best" alternatives to unattainably perfect environmental policies.²⁰⁴ In ecology as in economics, second-best solutions may offer little more than the illusion of progress.²⁰⁵ In a world full of economic imperfection and environmental uncertainty, a "third-best ap-

^{200.} See Paul R. Ehrlich & Anne H. Ehrlich, Extinction: The Causes and Consequences of the Disappearance of Species (1981); Paul R. Ehrlich, Anne H. Ehrlich & John P. Holdren, Ecoscience: Population, Resources, Environment 142 (1977).

^{201.} Wilson, supra note 4, at 280.

^{202.} Id.

^{203.} See David M. Raup, Cohort Analysis of Generic Survivorship, 4 Pale-obiology 1 (1978) (deriving from the fossil record an estimated extinction rate of 9 percent per million years, or roughly one species every five years in a biosphere containing 2 million species); David M. Raup, Diversity Crises in the Geological Past, in Biodiversity 51, 54 (E.O. Wilson ed., 1988) (increasing the slower extinction rate by "a factor of 10" in order to account for "local endemic species" not detectable by paleontologists); Edward O. Wilson, Conservation: The Next Hundred Years, in Conservation for the Twenty-First Century, supra note 194, at 3, 5 (estimating an "annual rate of reduction" in species diversity in tropical rainforests alone, which translates to a "per-species rate" of loss and an "absolute loss" of "about one to ten thousand times that prior to human intervention").

^{204.} See Peter Huber, Safety and the Second Best: The Hazards of Public Risk Management in the Courts, 85 Colum. L. Rev. 277 (1985); cf. Gregory S. Crespi, Market Magic: Can the Invisible Hand Strangle Bigotry?, 72 B.U. L. Rev. 991, 1010-11 (1992) ("Thou Shalt Not Optimize in Piecemeal Fashion").

^{205.} See Mario J. Rizzo, The Mirage of Efficiency, 8 HOFSTRA L. REV. 641, 652-53 (1980). See generally R.G. Lipsey & Kelvin Lancaster, The General Theory of Second Best, 24 REV. ECON. STUD. 11 (1956).

proach" holds greater promise: simply choose "among alternative general policies" and "adopt the policy that on average has the most favorable . . . implications" for preservation of the global commons and for the attainment of other environmental objectives. 206

We should begin by acknowledging what no longer can be denied: David Ricardo was the true winner of the Cold War. Relative to all of its alternatives, comparative advantage generates vast wealth. This matters because, to put it bluntly, the bill for saving the environment will be big:

[T]he Western industrial democracies are the only group of countries in the world that have the economic wherewithal to finance a serious effort to tackle such problems. If the most serious environmental threats to future generations are to be alleviated as a practical matter, then the Western industrial democracies will have to assume primary responsibility for doing so, partly by putting their own houses in order and partly by providing less developed countries with the aid that will allow them to do the same.²⁰⁷

To the extent that poverty and isolationism threaten the environment, trade liberalization is a singular boon. This proposition carries an even weightier corollary: autarky is incompatible not only with free trade, but also with environmental integrity. "[A]bove all else, . . . human degradation and deprivation . . . constitute the greatest threat not only to national, regional, and world security, but to essential life-supporting ecological systems upon which all depend"²⁰⁸

Whatever environmental risks may attend a world of liberalized trade, we cannot assess those risks without considering the alternative risks posed by the *absence* of free trade, or even its active suppression.²⁰⁹ Poverty leads to ignorance, overpopulation, and maldistribution of persons and resources. The fuel consumption "associated with pastoral life appears to be rather

^{206.} F.M. Scherer & David Ross, Industrial Market Structure and Economic Performance 37 (3d ed. 1990) (emphases added).

^{207.} Paul A. Barresi, Beyond Fairness to Future Generations: An Intragenerational Alternative to Intergenerational Equity in the International Environmental Arena, 11 Tul. Envil. L.J. 59, 65 (1998).

^{208.} James A. Lee, Conservation in a World in Search of a Future, in Conservation for the Twenty-First Century, supra note 194, at 284, 287.

^{209.} See Frank B. Cross, Paradoxical Perils of the Precautionary Principle, 53 Wash. & Lee L. Rev. 851, 854-55 (1996); cf. Corrosion Proof Fittings v. EPA, 947 F.2d 1201, 1221 (5th Cir. 1991) (declining to endorse any assessment that an environmental "regulation will increase workplace safety" unless the relevant agency "evaluate[s] the harm that will result from the increased use of substitute[s]").

deadly."²¹⁰ Because they "tend to buy in much smaller quantities," low-income persons "impose a heavier per capita load of packaging waste."²¹¹ Richer, as a rule, is safer.²¹² Moreover, "environmental policy and trade policy are complementary, at least in the sense that increasing world welfare can lead to citizen demands and governmental actions to improve protection for the environment. The poorest nations in the world cannot afford such protection, but as welfare increases protection becomes more affordable."²¹³

In other words, the demand for environmental protection goes up with per capita income.²¹⁴ An enhanced taste for all things green may inspire a virtuous cycle of improved economic and environmental performance. Domestic environmental regulation is a form of "technology forcing,"²¹⁵ especially to the extent it imposes "strict minimum compliance requirements."²¹⁶ Far from inflicting economic losses, aggressive environmental protection often spurs domestic firms to develop innovative technologies meeting the environmental challenge and eventually to dominate the global market for these technologies.²¹⁷

^{210.} American Trucking Ass'ns, Inc. v. EPA, 175 F.3d 1027, 1038 n.4 (D.C. Cir. 1999).

^{211.} Public Citizen v. United States Trade Representative, 970 F.2d 916, 921 n.6 (D.C. Cir. 1992).

^{212.} See, e.g., International Union, United Autoworkers v. OSHA, 938 F.2d 1310, 1326 (D.C. Cir. 1991); Frank B. Cross, When Environmental Regulations Kill: The Role of Health/Health Analysis, 22 Envil. L.Q. 729, 736-40 (1995). See generally Aaron B. Wildawsky, Searching for Safety 59-71 (1988).

^{213.} John H. Jackson, World Trade Rules and Environmental Policies: Congruence or Conflict?, 49 Wash. & Lee L. Rev. 1227, 1228 (1992).

^{214.} See, e.g., Gene M. Grossman & Alan D. Krueger, Environmental Impacts of a North American Free Trade Agreement 5 (1991); Office of Technology Assessment, U.S. Congress, Trade and Environment: Conflicts and Opportunities 4-6, 22-24 (1992).

^{215.} The concept of technology-forcing in environmental law refers to the issuance of "standards which require improvements in existing technology or which require the development of new technology." Chrysler Corp. v. Department of Transp., 472 F.2d 659, 673 (6th Cir. 1972); accord Corrosion Proof Fittings v. EPA, 947 F.2d 1201, 1220 (5th Cir. 1991); see also United Steelworkers of Am. v. Marshall, 647 F.2d 1189, 1264-65 (D.C. Cir. 1980) (noting that OSHA has the authority to force employers to adopt technology not yet developed or deployed); AFL-CIO v. Brennan, 530 F.2d 109, 121 (3d Cir. 1975) (same).

^{216.} Union Elec. Co. v. EPA, 427 U.S. 246, 257 (1976); see also Chemical Mfrs. Ass'n v. Natural Resources Defense Council, Inc., 470 U.S. 116, 155-56 (1985) (Marshall, J., dissenting) (arguing that the Clean Water Act "seeks to foster technological innovation" in water pollution control devices); Train v. Natural Resources Defense Council, Inc., 421 U.S. 60, 91 (1975) (describing the "technology-forcing character" of the Clean Air Act).

^{217.} See Michael Porter, America's Green Strategy, 264 Sci. Am. 168 (1991).

Global improvements in environmental quality will pay immeasurable intangible benefits. Not least among these advantages is a decisive increase in human mobility, at once globalization's sine qua non and its greatest dividend. Comprehensive, multilateral environmental protection enables everyone to travel and live without regard to boundaries.²¹⁸ Rather than forcing sensitive individuals to choose between health and freedom, we should pursue global environmental integrity as the practical equivalent of laws against forcible exile.²¹⁹

In effect, I am advocating across-the-board globalism. Absent compelling countervailing reasons, both trade liberalization and preservation of the global commons should prevail over local sovereignty. Simultaneous advocacy of free trade and aggressive environmentalism may seem incongruous, but it should not. The arguments for centralized environmental protection are structurally identical to those for free trade; some sort of "multijurisdictional legal intervention" in both realms is justified whenever, among other rationales, "[p]ublic choice problems distort local decisions" or individual "[j]urisdictions are large enough to affect global prices." Each side in the prevailing debate on trade and the environment tends to stress only half of the globalist equation. Free trade advocates tend to be "environmental localists, but . . . economic globalists." Environmentalists adopt the opposite combination of views. Neither side

^{218.} See, e.g., Daniel C. Esty, Revitalizing Environmental Federalism, 95 Mich. L. Rev. 570, 596 (1996); Eric T. Freyfogle, Owning the Land: Four Contemporary Narratives, 13 J. Land Use & Envil. L. 279, 305 (1998) ("A country [is] not fit to live in . . . 'when a man must be afraid to drink freely from his country's rivers and streams.'" (quoting Edward Abbey, Desert Solitaire: A Season in the Wilderness 185 (1971))); cf. A. Dan Tarlock, Safe Drinking Water: A Federalism Perspective, 21 Wm. & Mary Envil. L. & Pol'y Rev. 233, 252 (1997) (describing Safe Drinking Water Act amendments as an arguable "exercise in congressional protection of the implied right to travel"). See generally Richard B. Stewart, Environmental Quality as a National Good in a Federal State, 1997 U. Chi. L.F. 199.

^{219.} See Universal Declaration of Human Rights, art. 9, G.A. Res. 217, U.N. GAOR, 3d Sess., at 7, U.N. Doc. A1810 (1948) ("No one shall be subjected to arbitrary arrest, detention or exile."); cf. Arthur C. Helton, Forced International Migration: A Need for New Approaches by the International Community, 18 FORDHAM INT'L L.J. 1623 (1995) (calling for comprehensive legal measures against forcible exile across national boundaries).

^{220.} Daniel A. Farber, Environmental Federalism in a Global Economy, 83 Va. L. Rev. 1283, 1289, 1305 (1997).

^{221.} Daniel A. Farber, Stretching the Margins: The Geographic Nexus in Environmental Law, 48 STAN. L. REV. 1247, 1273 n.192 (1996).

seems to realize that they are accepting the same arguments in one sphere that they regard as illegitimate in the other."222

All that remains is to adopt criteria for assessing and addressing economic, cultural, and environmental claims that arise from the clash of global forces with local interests. To that daunting task I now turn.

III. BRAVE NEW McWORLD²²³

A. APOCALYPSE NOW

The word *extinction* is as fearsome as it is final. "Of all the words in the vocabulary, none is bleaker than extinction."²²⁴ But to defer a decision is tantamount to dying. "In biological terms, stasis is death; only growth and change keep the organism alive."²²⁵ Like all other organic beings, human institutions must adapt or die.

Even the United States' Endangered Species Act, perhaps the most uncompromising law of its kind, requires decisionmakers to make tragic choices — to play Noah, if you will.²²⁶ American law prescribes "a particular sort of careful and informed decisionmaking process" that ensures full consideration of "environmental issues . . . at every important stage."²²⁷ The National Environmental Policy Act of 1970 (NEPA),²²⁸ which or-

^{222.} Id.; see also id. at 1273 ("Globalism and localism are both fundamentally incomplete. Each contains a partial normative vision that deemphasizes the values promoted by the other."). On occasion these groups do cooperate to vanquish a common localist enemy. Business, labor, and environmental groups uniformly opposed and eventually defeated the Federalism Accountability Act of 1999, S. 1214, 106th Cong., 1st Sess. (1999), 145 Cong. Rec. S6857, S6873-74 (June 10, 1999), which would have required Congress and federal agencies to explain all decisions to preempt state or local laws. See Ron Eckstein, Federalism Bills Unify Usual Foes, Legal Times, Oct. 18, 1999, at 1, 16-17.

^{223.} Cf. Shakespeare, supra note 13, act V, sc. 1, ll. 211-14 ("O, wonder! / How many goodly creatures are there here! / How beauteous mankind is! O brave new world / That has such people in't!").

^{224.} Bosselman, supra note 143, at 15.

^{225.} Marci A. Hamilton, Art Speech, 49 Vand. L. Rev. 73, 76 (1996); see also J.H. Woodger, Biological Principles: A Critical Study 442 (1967) (describing "continual intrinsic change" as "essential to [the] persistence" of any living organism).

^{226.} See John Copeland Nagle, Playing Noah, 82 Minn. L. Rev. 1171 (1998); cf. Charles C. Mann & Mark L. Plummer, Noah's Choice: The Future of Endangered Species (1995) (arguing as a descriptive matter that it is impossible to save all endangered species and as a prescriptive matter that society ought not to try).

^{227.} Calvert Cliffs Coordinating Comm. v. United States Atomic Energy Comm'n, 449 F.2d 1109, 1115, 1118 (D.C. Cir. 1971).

^{228. 42} U.S.C. §§ 4321-4370d (1994).

dinarily instructs American decisionmakers when and how to prepare an environmental impact statement,²²⁹ can and should be mined for sound guidelines on reconciling potential conflicts between globalization and its losers.²³⁰

Admittedly, the actual administration of NEPA in American law is arcane and has limited direct relevance to international economic law. NEPA lacked the power, for instance, to force judicial review of NAFTA's potential environmental impact. ²³¹ But its provisions suggest a three-step approach toward understanding and responding to economic, cultural, and environmental threats posed by globalization. First, NEPA's definition of the "human environment" suggests that we should strenuously decouple the environmental component of trade disputes from the corresponding economic component. Almost any trade dispute can be characterized as environmental in nature, even when the dispute turns largely on the competing economic interests of producers. This sort of manipulative, dishonest legerdemain undermines the credibility of environmental objections to globalization.

Second, international decisionmakers should adopt a set of priorities informed by NEPA's requirement that American decisionmakers consider not only the "relationship between local short-term use of [the] environment and the maintenance and enhancement of long-term productivity," but also any "irreversible and irretrievable commitments of resources." First priority unequivocally belongs to interests that are irretrievable and incommensurate. As rapidly as jobs turn over in a technologically driven global economy, decisionmakers should turn an especially deaf ear to extinction pleas rooted in concerns over unemployment. Rigorous consideration of alternatives not only lies "at the heart of [NEPA and] the environmental impact statement" process it prescribes²³³ but also animates an entire body

^{229.} See id. § 4332(c).

^{230.} For another effort to apply insights drawn from American administrative law to problems in a foreign legal system, see Francesca E. Bignami, *The Democratic Deficit in European Community Rulemaking: A Call for Notice and Comment in Comitology*, 40 HARV. INT'L L.J. 451 (1999).

^{231.} See Public Citizen v. United States Trade Representative, 5 F.3d 549 (D.C. Cir. 1993) (disclaiming jurisdiction to review the President's NAFTA negotiations before final submission of the treaty to Congress). For an argument that international law and federal power in American law are much more closely linked than most Americans assume, see Curtis A. Bradley, The Treaty Power and American Federalism, 97 Mich. L. Rev. 390 (1998).

^{232. 42} U.S.C. § 4332(c)(iv), (v) (1994).

^{233. 40} C.F.R. § 1502.14 (1999).

of environmental law dedicated to the assiduous avoidance of incommensurable damage. 234

NEPA's own limits suggest the final step of this decision-making algorithm. NEPA cannot affect agencies' requests for congressional appropriations.²³⁵ Moreover, once an agency has fulfilled procedures designed to ensure consideration of environmental values, a reviewing court cannot "interject itself within the area of discretion of the executive as to the choice of the action to be taken.'"²³⁶ These limits reinforce the conventional public law wisdom that spending decisions belong squarely in the political realm. Some "significant group of . . . citizens . . . can be counted upon to use their votes" whenever any government proposes to raise taxes or spend scarce public funds.²³⁷

Globalization's contribution to the process is twofold. The cheapening of information²³⁸ and the democratization of its dissemination raise public awareness, in all nations, of losers' grievances against the global economic order. At the same time, trade liberalization so dramatically increases worldwide wealth that lawmakers can and should contemplate a different sort of remedy in the place of trade sanctions: naked wealth transfers from those enriched by globalization to those who bear its brunt.

Among other advantages, this three-step approach helps channel the usual (and legitimate) debates over the proper use

^{234.} See, e.g., 16 U.S.C. 1536(h)(1)(A)(i) (restricting exemptions under § 7 of the Endangered Species Act to circumstances in which "there are no reasonable and prudent alternatives to the [challenged] agency action"); 23 U.S.C. § 138 (1994) (forbidding the approval of federal highways on public parkland "unless . . . there is no feasible and prudent alternatives to the use of such land"), cited in Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 411 (1971); 40 C.F.R. § 230.10(a) (1999) (prohibiting "the discharge of dredged or fill material" under § 404 of the Clean Water Act, 33 U.S.C. § 1344 (1994), as long as "there is a practicable alternative . . . which would have less adverse impact on the aquatic ecosystem").

^{235.} See Andrus v. Sierra Club, 442 U.S. 347, 361, 364-65 (1979) (holding that such requests are neither "proposals for legislation" nor "major federal actions" within the meaning of NEPA).

^{236.} Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976) (quoting Natural Resources Defense Council, Inc. v. Morton, 458 F.2d 827, 838 (D.C. Cir. 1972)); accord Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227-28 (1980); see also Scenic Hudson Preservation Conference v. FPC, 453 F.2d 463, 481 (2d Cir. 1971) (restricting the discretion of a reviewing court to substitute its own judgment for that of an expert agency with respect to a proposed action's environmental consequences), cert. denied, 407 U.S. 926 (1972).

^{237.} Washington v. United States, 460 U.S. 536, 545 (1983); accord West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 200 (1994); South Carolina v. Baker, 485 U.S. 505, 525 n.15 (1988).

^{238.} See generally Volokh, supra note 85.

of economic techniques in environmental policymaking. Disputes over discount rates²³⁹ and the very use of contingent valuation²⁴⁰ most appropriately inform the extent to which compensable injuries should be repaid. Conversely, in the realm of the irretrievable and the incommensurate, this approach gives much needed weight to considerations of intergenerational equity,²⁴¹ an otherwise disgracefully "underenforced norm" in domestic and international law.²⁴²

In explaining this NEPA-inspired approach, I will frequently adopt agricultural examples. Among contemporary trade disputes, agricultural controversies exhibit an extraordinary degree of bitterness precisely because they involve the collision of labor, cultural, and environmental interests. The transatlantic tussle over growth hormones²⁴³ and the European contretemps over bovine spongiform encephalopathy²⁴⁴ share a great deal in common. In both beefs, the losing side fears the

^{239.} See generally David W. Pearce & R. Kerry Turner, Economics of Natural Resources and the Environment 148-53 (1990); Daniel A. Farber & Paul A. Hemmersbaugh, The Shadow of the Future: Discount Rates, Later Generations, and the Environment, 46 Vand. L. Rev. 267 (1993); Richard L. Revesz, Environmental Regulation, Cost-Benefit Analysis, and the Discounting of Human Lives, 99 Colum. L. Rev. 941 (1999).

^{240.} See, e.g., Howard F. Chang, An Economic Analysis of Trade Measures to Protect the Global Environment, 83 Geo. L.J. 2131, 2169-70 (1995); Richard H. Pildes & Cass R. Sunstein, Reinventing the Regulatory State, 62 U. Chi. L. Rev. 1, 66-72 (1995); Douglas R. Williams, Valuing Natural Environments: Compensation, Market Norms, and the Idea of Public Goods, 27 Conn. L. Rev. 365 (1995).

^{241.} See generally Edith Brown Weiss, In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity (1989); Edith Brown Weiss, Our Rights and Obligations to Future Generations for the Environment, 84 Am. J. Int'l L. 198 (1990); David A. Westbrook, Liberal Environmental Jurisprudence, 27 U.C. Davis L. Rev. 619, 702-08 (1994); James Wood, Intergenerational Equity and Climate Change, 8 Geo. Int'l Envil. L. Rev. 293 (1996).

^{242.} See generally Lawrence G. Sager, Fair Measure: The Status of Underenforced Constitutional Norms, 91 Harv. L. Rev. 122 (1978).

^{243.} See Report of the Appellate Body, World Trade Org., European Community Measures Concerning Meat & Meat Prods. (Hormones), AB-1997-4, WT/DS26/AB/R, WT/DS48/AB/R (Jan. 16, 1998); see also Council Directive 85/649, arts. 5 & 6(1), 1985 O.J. (L 382) 229-30; Adrian Halpern, Comment, The U.S.-E.C. Hormone Beef Controversy and the Standards Code: Implications for the Application of Health Regulations to Agricultural Trade, 14 N.C. J. INT'L L. & COM. Reg. 135 (1989). See generally, e.g., Dale E. McNiel, The First Case Under the WTO's Sanitary and Phytosanitary Agreement: The European Union's Hormone Ban, 39 Va. J. INT'L L. 89 (1998); Michele D. Carter, Selling Science Under the SPS Agreement: Accommodating Consumer Preference in the Growth Hormone Controversy, 6 Minn. J. Global Trade 625 (1997).

^{244.} See, e.g., Stephen Castle & Colin Brown, Britain Denies Concessions as Beef War Heads for the Courts, The Indep., Nov. 13, 1999, at 1.

"unsettling" prospect that it will lose not only preeminence in agriculture, but also control of its own culture. The coming storm over the use of genetically modified organisms in agriculture, too inchoate to withstand closer scrutiny in this article, will surely intensify the debate.

B. DECOUPLING IN A DIFFERENT VOICE

1. A shibboleth for all seasons.

The notion of sustainability provides a useful starting point. The agreement establishing the World Trade Organization seeks to reconcile "trade and economic endeavour" with "the objective of sustainable development" in an effort "both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with . . . needs and concerns at different levels of economic development." Of course, weasel words such as "sustainability" and "stewardship" can be coopted. For instance, one group advocating the primacy of "private property rights" over "environmental and political extremism" has the audacity to call itself "Stewards of Family Farms, Ranches, and Forests."

Borrowing a precise definition of "sustainability" from agricultural scholarship helps us distinguish the word's environmental and economic connotations. "Sustainable agriculture consists" strictly of "processes involving biological activities of growth or reproduction intended to produce crops, which do not undermine our future capacity to successfully practice agriculture" and which do not "exhaust any irreplaceable resources which are essential to agriculture." Neither protection for incumbent labor nor preservation of existing market structures is implied. Such a strict definition approximates the Rio con-

^{245.} Cf. Wendell Berry, The Unsettling of America: Culture and Agriculture (3d ed. 1996).

^{246.} Agreement Establishing the World Trade Organization, April 15, 1994, pmbl., 33 I.L.M. 1125, 1144 (1994).

^{247.} See Frances Cairncross, Costing the Earth: The Challenges for Governments, the Opportunities for Business 13 (1992) (describing "sustainable development" as "a convenient phrase, meaning different things to different people").

^{248.} Slawson v. Alabama Forestry Comm'n, 631 So. 2d 953, 955 (Ala. 1994).

^{249.} Hugh Lehman, E. Ann. Clark & Stephan F. Weise, Clarifying the Definition of Sustainable Agriculture, 6 J. Agric. & Envil. Ethics 127, 139 (1993). 250. Cf. Exxon Corp. v. Governor of Maryland, 437 U.S. 117, 127 (1978) (ob-

^{250.} Cf. Exxon Corp. v. Governor of Maryland, 437 U.S. 117, 127 (1978) (observing that "neither half of the commerce clause protects the particular structure or methods of operation in a . . . market"); CTS Corp. v. Dynamics Corp. of Am., 481 U.S. 69, 93-94 (1987) (same).

vention's definition of "sustainable use" as "the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations."²⁵¹

At stake is the political economy of globalization. Equating agricultural protectionism with environmental protection is probably the gravest shortcoming in contemporary agricultural policy. It is also one of the most frequent, for farmers, other producers, and their advocates hold a powerful advantage in the political arena *vis-à-vis* consumers at large.²⁵² The decline of nature follows the same trajectory as the decline of nations.²⁵³ Failing to decouple issues of environmental protection and sustainable resource management "from issues of [producer] income and economic viability" will surely "make environmentalism contingent upon the pecuniary preferences of [politically influential] environmentalists."²⁵⁴

Distinguishing environmental from economic claims is as challenging as it is important. Even when stripped of its environmental pretensions, agricultural regulation lacks coherent economic justifications. Complex law demands and deserves complex analysis: only by distinguishing economic from environmental objectives can we possibly hope to distinguish legitimate claims sounding of diversity and extinction from illegitimate claims sounding of mere economic obsolescence.

^{251.} Convention on Biological Diversity, concluded at Rio de Janeiro, June 5, 1992, art. 2, 31 I.L.M. 818, 824 (1992).

^{252.} See Geoffrey P. Miller, Public Choice at the Dawn of the Special Interest State: The Story of Butter and Margarine, 77 CAL. L. Rev. 93 (1989); Geoffrey P. Miller, The True Story of Carolene Products, 1987 Sup. Ct. Rev. 397.

^{253.} See Mancur Olson, The Logic of Collective Action: Public Goods and the Theory of Groups 153-59 (1971) (describing the rent-seeking, welfare-destroying political behavior that occurs when the a concentrated lobby stands to reap the potential benefits and the potential costs are distributed across the population at large); Mancur Olson, The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities (1982).

^{254.} Jim Chen, The Agroecological Opium of the Masses, Choices, 4th Q. 1995, at 16, 20 (emphases in original).

^{255.} See Steven C. Bahls, Preservation of Family Farms — The Way Ahead, 45 Drake L. Rev. 311, 324-25 (1997).

^{256.} Cf. Market Street Ry. Co. v. Railroad Comm'n, 324 U.S. 548, 567 (1945) (noting that judicial intervention in regulation "has not and cannot be applied to insure values or to restore values that have been lost by the operation of economic forces").

2. The economic/ecological divide.

Consider what at first glance appears an unlikely source of anxiety over globalization. Governmental support for agricultural research and development, thought so benign that the Uruguay Round's Annex on Agriculture consigned the whole matter to a "green box" immune from further scrutiny. 257 was actually one of the earliest targets of putatively environmental litigation in American agricultural law. Between the Civil War and the New Deal, federal agricultural legislation — from the monumental Morrill Land-Grant Acts of 1862²⁵⁸ and 1890²⁵⁹ to the Hatch Act of 1887,260 the Adams Act of 1906,261 the Smith-Lever Act of 1914,262 the Purnell Act of 1925,263 and the Bankhead-Jones Act of 1935²⁶⁴ — "gradually expanded the original handful of agricultural colleges into a full-blown educational and research network of land grant universities, experiment stations, and cooperative extension offices."265 This "diffuse network of laboratories and research stations" even supplies some modest ex situ protection for plant genetic resources through the National Seed Storage Laboratory.²⁶⁶

Federal support for "research into the laws and principles underlying the basic problems of agriculture in its broadest aspects'"267 sparked an extraordinary protest against agricultural

^{257.} See Agreement on Agriculture, opened for signature April 15, 1994, in GATT Secretariat, The Results of the Uruguay Round of Multilateral Trade Negotiations 39, annexes 2, 4:2 (GATT Sales No. 1994-4) (1994).

^{258. 7} U.S.C. §§ 301-29 (1994).

^{259.} Act of Aug. 30, 1890, ch. 841, 26 Stat. 417.

^{260. 7} U.S.C. §§ 361a-361i (1994).

^{261.} Act of Mar. 16, 1906, ch. 951, 34 Stat. 63.

^{262. 7} U.S.C. §§ 341-349 (1994); see also Bazemore v. Friday, 478 U.S. 385, 389 (1986) (Brennan, J., concurring in part) (describing the work of the Extension Service in "home economics, agriculture, 4-H and youth, and community resource development").

^{263.} Act of Feb. 24, 1925, ch. 308, 43 Stat. 970.

^{264. 7} U.S.C. §§ 427, 427i (1994); see also Smith-Hughes Vocational Education Act of 1917, 20 U.S.C. §§ 11-28 (1994) (providing federal support for agriculturally oriented vocational education in high schools).

^{265.} Chen, supra note 44, at 838. See generally M.C. Hallberg, Policy for American Agriculture: Choices and Consequences 303-23 (1992) (chronicling American agricultural legislation since 1862); Don Paarlberg, Farm and Food Policy: Issues of the 1980s, at 14-15 (1980) (describing the first generation of agricultural statutes after 1862 as establishing the "developmental" agenda in American agricultural law).

^{266.} See National Research Council, Managing Global Genetic Resources: The U.S. National Plant Germplasm System 1 (1991).

^{267.} Foundation on Econ. Trends v. Lyng, 943 F.2d 79, 80-81 (D.C. Cir. 1991) (quoting the Bankhead-Jones Act of 1935, 7 U.S.C. § 427).

modernization and globalization. In the late 1980s, a California trial court invalidated all federally funded agricultural research at the University of California on the ground that the university had encouraged "the development of machines and other technology to reduce the use of labor as a means of agricultural production" without developing a "process designed to ensure consideration" of the economic impact on "small family farmer[s]."268 Only on appeal did the university establish that federal support does not oblige agricultural researchers to "establish an administrative process to ensure . . . primary consideration to the needs of the small family farmer."269 Though conducted under other statutory authority, this litigation is properly regarded as an unsuccessful attempt to apply NEPA to controversies involving farm incomes and agriculture's economic prospects.²⁷⁰ Since the 1970s, legal scholars had been urging the use of NEPA as a procedural check on mechanization research.271

No litigation strategy of this sort could — or should — succeed as long as it equates the economic well-being of farmers with environmental protection.²⁷² Of themselves, "socio-economic" consequences such as farmworker displacement or farm bankruptcy cannot trigger NEPA obligations; major federal action must have a "primary impact on the *physical* environment."²⁷³ Whether "the gains from [a] technological advance" "are worth its attendant risks" to economically endangered ac-

^{268.} J.W. Looney, The Changing Focus of Government Regulation of Agriculture in the United States, 44 Mercer L. Rev. 763, 815-16 (1993) (describing litigation waged by the California Agrarian Action Project against the University of California).

^{269.} California Agrarian Action Project, Inc. v. University of California, 210 Cal. App. 3d 1245, 258 Cal. Rptr. 769 (1989).

^{270.} See Chen, supra note 44, at 839-43 (analyzing the University of California litigation as if it had been brought under NEPA).

^{271.} See Robert S. Catz, Land Grant Colleges and Mechanization: A Need for Environmental Assessment, 47 Geo. Wash. L. Rev. 740 (1979); Comment, The Public Purpose Doctrine and University of California Farm Mechanization Research, 11 U.C. Davis L. Rev. 599 (1978).

^{272.} See Catz, supra note 271, at 746-48 (making this fallacious connection); Howard S. Cher, Robert S. Catz & Gregory H. Mathews, USDA: Agriculture at the Expense of Small Farmers and Farmworkers, 7 Toledo L. Rev. 837, 848-51 (1976) (same).

^{273.} Image of Greater San Antonio v. Brown, 570 F.2d 517, 522 (5th Cir. 1978) (emphasis in original) (holding that the disruption of preexisting employment relationships does not constitute "primary impact on the physical environment"); accord 40 C.F.R. § 1308.14 (1999); see also Missouri Coalition for the Envt. v. Corps of Eng'rs, 866 F.2d 1025, 1031-32 (8th Cir.), cert. denied, 493 U.S. 820 (1989); Stauber v. Shalala, 895 F. Supp. 1178, 1194 (W.D. Wis. 1995).

tors is "quite different" and distant from the legally relevant question of whether "the same gains are worth a given level of alteration of our physical environment or depletion of our natural resources." Family farming — an "economic vision," indeed.275

The usual defense of agricultural autarky as environmental panacea starts and ends with a single slogan: clean agriculture depends on the "eves to acres ratio."276 The more dispersed the ownership of farms, so the argument goes, the sounder their management. To the extent it concentrates agricultural holdings, globalization should be considered an unmitigated evil. But economic theory and empirical evidence subvert virtually every claim linking environmental performance with policies that consciously suppress the size of individual farms and disperse the ownership of farms.²⁷⁷ It is evidently easy to articulate but notoriously hard to prove the intuition that ownermanagers outperform franchisees or employees in meeting regulatory demands.²⁷⁸ Farm-sector lobbyists readily bamboozle agriculturally illiterate consumers and policymakers; the public forgets that "Iflarming is not an environmentally benign activity."279 Agriculture's sheer age as a human activity obscures its long-term environmental impact. 280 Victimized by polluted (and unregulated) runoff.281 agriculture's least mobile casualties

^{274.} Metropolitan Edison Co. v. People Against Nuclear Energy, 460 U.S. 766, 776 (1983).

^{275.} See Marry Strange, Family Farming: A New Economic Vision (1988).

^{276.} Wes Jackson, Altars of Unhewn Stone 37 (1987). See generally Wendell Berry, The Gift of Good Land: Further Essays Cultural and Agricultural (1981).

^{277.} See generally Jim Chen, Get Green or Get Out: Decoupling Environmental from Economic Objectives in Agricultural Regulation, 48 OKLA. L. Rev. 333, 336-43 (1995).

^{278.} Cf. Bechtel v. FCC, 10 F.3d 875 (D.C. Cir. 1993) (concluding, in the context of broadcast licensing, that the FCC failed to support a policy favoring "integrated" owner-managers over other prospective licensees).

^{279.} Chen, supra note 44, at 872; Chen, supra note 254, at 20.

^{280.} See William Howarth, Legal Approaches to the Prevention of Agricultural Water Pollution in England and Wales, 45 Drake L. Rev. 197, 197 (1997) ("Until fairly recent times there was a common belief that farming, as an activity conducted since the dawn of humanity, must be an environmentally benign operation, since if it were not, the adverse effects would have been noticed long ago.").

^{281.} See Clean Water Act § 502(14), 33 U.S.C. § 1362(14) (1994) (excluding "agricultural stormwater discharges and return flows from irrigated agriculture" from the scope of the Clean Water Act's prohibition against the unpermitted addition of pollutants to navigable waters from any point source); see also J. Clarence Davies & Jan Mazurek, Regulating Pollution: Does the U.S. System Work? 19, 27 (1997) (describing nonpoint water pollution as the most seri-

blithely assume that "[t]he ground filters everything out." ²⁸² The "small is beautiful" variant of this ideology is especially malign, ²⁸³ for "[s]mall-scale communities are seldom as humane and ecologically sound" as their advocates "portray them to be." ²⁸⁴ If anything, smallness and family ownership bear a *negative* correlation to environmental protection; larger nonfamily corporations outperform family landowners in soil conservation and erosion control. ²⁸⁵

Agricultural protectionism confers no environmental benefits. It cannot even save farmland.²⁸⁶ Since World War II, cropland losses in the United States have stemmed principally from "lack of farm economic viability rather than urban encroachment."²⁸⁷ Indeed, "urban development" has inflicted fewer "cropland losses" than "forest, grazing, recreation, wildlife, and other uses" of land.²⁸⁸ Protectionism's downside, by contrast, is well known. Agricultural subsidies encourage the overuse of water, fertilizer, and pesticides.²⁸⁹ To the extent that the economic interests of farmers warrant any official tinkering

ous ecological hazard in the United States); cf. Concerned Area Residents for the Environment v. Southview Farms, Inc., 34 F.3d 114, 121-22 (2d Cir. 1994) (holding that concentrated animal feeding operations are subject to point source regulation under the Clean Water Act); Steven P. Lipowski, In Search of Further Regulation of Cattle Under the Clean Water Act: Cattle as Point Sources After Oregon Natural Desert Association, 6 Wis. Envil. L.J. 167, 193 (1999) ("The idea that only large, [feedlot-like] operations need regulatory oversight under the [Clean Water Act] is a fallacy rooted in protection of the archetypal small-time farmer or rancher.").

- 282. Jane Smiley, A Thousand Acres 259 (1991).
- 283. See generally E.F. Schumacher, Small Is Beautiful: Economics as if People Mattered (1973); Anna Bramwell, Ecology in the 20th Century: A History (1989).
- 284. Martin W. Lewis, Green Delusions: An Environmentalist Critique of Radical Environmentalism 91 (1992); see also Richard J. Pierce, Jr., Small Is Not Beautiful: The Case Against Special Regulatory Treatment of Small Firms, 50 Admin. L. Rev. 537, 559 (1998) ("Small firms . . . are responsible for a massively disproportionate share of water and air pollution.").
- 285. See Linda K. Lee, The Impact of Landownership Factors on Soil Conservation, 62 Am. J. Agric. Econ. 1070, 1073 (1980); Luther Tweeten, The Economics of Small Farms, 219 Science 1037, 1038 (1983).
- 286. See generally Farmland Protection Policy Act, 7 U.S.C. §§ 4201-4207 (1994) (articulating a federal policy of protecting farmland from conversion to other uses).
- 287. Luther Tweeten, Food Security and Farmland Preservation, 3 Drake J. Agric. L. 237, 243 (1998).
 - 288 I
- 289. See C. Ford Runge, Freer Trade, Protected Environment: Balancing Trade Liberalization and Environmental Interests 46-47 (1994); Jim Chen, Get Green or Get Out: Decoupling Environmental from Economic Objectives in Agricultural Regulation, 48 Okla. L. Rev. 333, 339 & n.52 (1996).

with global agricultural markets, income and price supports have had precisely the opposite effect: federal farm legislation since the New Deal has exacerbated rather than ameliorated the economic pressures on marginal producers.²⁹⁰

Of their own force, changes in the market structure and industrial organization of agriculture carry no environmental consequences that warrant legal interference with globalization. Governments the world over wish to shield their own farmers, but such protectionism cannot be justified by a desire to save the environment. The image of farmers being "blown off the land" tells nothing more than the oldest tale of economic evolution. The principal factor determining whether farmers abandon agriculture is the going wage for off-farm employment.²⁹¹ Globalization has expanded those opportunities, in number and in value, even as increased competition has lowered commodity prices.²⁹² The family farm system has evaporated "[l]ike a splash of rubbing alcohol,"²⁹³ and concern for the environment provides no countervailing reasons to save it.²⁹⁴

Aggressive decoupling also yields an elegantly simple set of prescriptions for impending international trade disputes over

^{290.} See Jim Chen, Filburn's Forgotten Footnote — Of Farm Team Federalism and Its Fate, 82 Minn. L. Rev. 249, 295-305 (1997); Christopher R. Kelley, Rethinking the Equities of Federal Farm Programs, 14 N. Ill. U. L. Rev. 659, 686 (1994).

^{291.} See, e.g., Andrew P. Barkley, The Determinants of the Migration of Labor out of Agriculture in the United States, 1940-84, 72 Am. J. Agric. Econ. 567, 571 (1990); Wallace E. Huffman, Farm and Off-Farm Work Decisions: The Role of Human Capital, 62 Rev. Econ. & Statistics 14, 22-23 (1980); Yoav Kislev & Willis Peterson, Prices, Technology, and Farm Size, 90 J. Pol. Econ. 578, 579 (1982). But hear Gillian Welch, One More Dollar, on Revival (Almo Sounds 1996) ("When I reach those hills, boys / I'll never roam / One more dollar and I'm going home.").

^{292.} This economic narrative is one that law professors should instinctively understand: the only reason they are paid as handsomely as they are, despite their paltry academic credentials and teaching skills, is that the private sector values the juris doctor degree. See R.H. Coase, The Market for Goods and the Market for Ideas, 64 Am. Econ. Rev. 384 (1974) (explaining how educators' self-interest undermines their credibility on educational policy), reprinted in R.H. Coase, Essays on Economics and Economists 64 (1994); E.G. West, The Political Economy of American Public School Legislation, 10 J.L. & Econ. 101 (1967) (same); cf. Jim Chen, Language as a Species of Language Acquisition, 73 Wash. U. L.Q. 1263, 1267 (1995) (characterizing law professors as victims of "Ph.D. envy").

^{293.} Jim Chen & Edward S. Adams, Feudalism Unmodified: Discourses on Farms and Firms, 45 Drake L. Rev. 361, 431 (1997).

^{294.} Contra, e.g., Carol Hodne, We Whose Future Has Been Stolen, in Is There a Moral Obligation to Save the Family Farm? 54, 54 (Gary Comstock ed., 1987).

the use of genetically modified organisms in agricultural production and food processing. To the extent there is reliable scientific evidence that agricultural biotechnology poses general risks to the environment or to human health, it should be banned outright. Labeling works only as a method of informing especially sensitive consumers of risks specific to them (such as allergies). Insofar as resistance to "Frankenfoods" arises from a fear that farm sizes will increase or farmers will lose the ability to save seed from season to season, however, the WTO should brook no departures from free trade. Rendons millions pour la défense de l'environnement, mais pas un seul sou pour hommage agraire: Millions for environmental defense, but not one dime in agrarian tribute.

3. The exception proves the rule.

There is one respect in which dispersed farm ownership may improve agriculture's environmental performance. Smaller, owner-operated farms excel in preserving rare animal breeds and heirloom seeds. The precise contours of agriculture's relationship with biodiversity preservation, however, still fail to justify legal interference with globalization.

Like America, the impulse toward species conservation "was born in the country and moved to the city."²⁹⁶ Our awareness of extinction began on the farm. The opening chapter of *The Origin of Species* explored variation in domesticated plants and animals.²⁹⁷ As industrialization forced smaller farms to fold or consolidate, entire landraces, varieties, and breeds vanished. The biological crisis of Darwin's England has spread to the rest of the globe. Agriculture's shallow genetic pool is being drained at a breakneck pace "as human population and economic pres-

^{295.} See Statement of Policy: Foods Derived from New Plant Varieties, 57 Fed. Reg. 22,984, 22,987, 22,991 (1992).

 $^{296.\;}$ Richard Hofstadter, The Age of Reform: From Bryan to F.D.R. 23 (1955).

^{297.} See Darwin, supra note 36, at 71-100. Compare Act of May 15, 1862, ch. 72, § 1, 12 Stat. 387, codified as amended at 7 U.S.C. § 2201 (1994) (ordering the newly established United States Department of Agriculture "to procure, propagate, and distribute among the people new and valuable seeds and plants") with Thomas Jefferson's Farm Book (Edwin M. Betts ed., 1976) (expressing the third President's sentiment that "[t]he greatest service which can be rendered any country is to add a useful plant to its culture"), quoted in Neil D. Hamilton, Feeding Our Future: Six Philosophical Issues Shaping Agricultural Law, 72 Neb. L. Rev. 210, 249 (1993).

sures accelerate the pace of change in traditional agricultural systems."298

Globalization portends dire consequences for agricultural biodiversity. Rural communities preserve rare animal breeds and plant varieties *in situ*. Over many generations, traditional foraging and agrarian communities have amassed volumes of ethnobiological knowledge.²⁹⁹ The world's untapped ethnobiological knowledge, "if gathered and catalogued, would constitute a library of Alexandrian proportions."³⁰⁰ Much of this knowledge, locked as it is in endangered languages, will be irretrievable if linguistic diversity continues to decline.³⁰¹

On the other hand, farmers in general and small farmers in particular have an abysmal record in conserving wild species. To a hungry peasant, the last imperial woodpecker in the world is nothing more than "un gran pedazo de carne" — a big piece of meat. 302 Rural people bear the brunt of the costs of conservation, if only because they can no longer harvest species or cultivate critical habitat. 303 No wonder urban voters consistently lend greater support to environmental measures than do their rural counterparts. 304 Antonin Scalia inadvertently confirmed the political economy underlying this phenomenon when he complained that habitat preservation "on private lands imposes unfairness to the point of financial ruin — not just upon the rich, but upon the simplest farmer who finds his land conscripted to

^{298.} World Watch List for Domestic Animal Diversity, at v (2d ed. 1995); see also Wilson, supra note 4, at 322 ("Small farms around the world are giving way to the monocultures of agrotechnology.").

^{299.} See, e.g., Neil D. Hamilton, Who Owns Dinner: Evolving Legal Mechanisms for Ownership of Plant Genetic Resources, 28 Tulsa L.J. 587, 655 (1993); Winona LaDuke, Traditional Ecological Knowledge and Environmental Futures, 5 Colo. J. Int'l Envil. L. & Pol'y 127 (1994); Eric Christensen, Note, Genetic Ark: A Proposal to Preserve Genetic Diversity for Future Generations, 40 Stan. L. Rev. 279 (1987); June Starr & Kenneth C. Hardy, Note, Not by Seeds Alone: The Biodiversity Treaty and the Role for Native Agriculture, 12 Stan. Envil. L.J. 85 (1993); Lester I. Yano, Comment, Protection of the Ethnobiological Knowledge of Indigenous Peoples, 41 UCLA L. Rev. 443 (1993).

^{300.} Wilson, supra note 4, at 321.

^{301.} See Thomas S. O'Connor, "We Are Part of Nature": Indigenous Peoples' Rights as a Basis for Environmental Protection in the Amazon Basin, 5 Colo. J. Int'l Envil. L. & Pol'y 193, 203 (1994).

^{302.} See George Plimpton, Un Gran Pedazo de Carne, 79:6 Audubon Mag. 10 (1977).

^{303.} See Jeffrey A. McNeely, Economics and Biological Diversity: Developing Incentives to Conserve Natural Resources, at xi (1988).

^{304.} See Daniel Henning & William Mangun, Managing the Environmental Crisis: Incorporating Competing Values in Natural Resource Administration 8 (1989); Lewis, supra note 284, at 97-98.

national zoological use."³⁰⁵ Farmers subjected to conservation measures are apt to object that land use restrictions are "the constitutional equivalent of an edict taking" the farmland "in the first place."³⁰⁶ But this is the very price that should be inflicted when farmers and other rural residents reap private benefits at the expense of broader benefits "which, in all fairness and justice, should be [enjoyed] by the public as a whole."³⁰⁷

In light of farmers' dual impact on biodiversity, domestic and international laws should bifurcate their response to globalization. The sort of biodiversity that farmers can and do preserve, that of domesticated plants and animals, is the one sort that lends itself to ex situ preservation. Agriculture has so throughly altered domestic plants and animals that these organisms share neither the habitat nor the genetic destiny of their wild ancestors. How a farm or ex situ facility is owned matters not one whit. Publicly owned experiment stations can and should take the place of economically endangered farms as reservoirs for agriculture's genetic resources. By contrast, the law should unflinchingly preserve the wild ecosystems that subsistence farmers and plantation owners alike so systematically destroy.

In an earlier age, Thomas Gray's "Country Churchyard" and Oliver Goldsmith's "Deserted Village" and described the tragedy of human lives lost in the brutal transition from agrarian to industrial society. Mindful of globalization's environmental impact, we might consider conscripting these metaphors for a more pressing crisis: stopping the encroachment of agriculture and other human activities on the few wild places left in this world.

^{305.} Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, 515 U.S. 687, 714 (1995) (Scalia, J., dissenting).

^{306.} Christy v. Lujan, 490 U.S. 1114, 1116 (1989) (White, J., dissenting from denial of cert.).

^{307.} Armstrong v. United States, 364 U.S. 40, 49 (1960); accord, e.g., First English Evangelical Lutheran Church v. County of Los Angeles, 482 U.S. 304, 318-19 (1987); Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 123-24 (1978).

^{308.} See Jared Diamond, Guns, Germs, and Steel: The Fates of Human Societies 117-23, 159-61 (1997).

^{309.} See Thomas Gray, Elegy Written in a Country Churchyard, in Elegy Written in a Country Churchyard with the Complete Poems of Thomas Gray 7, 7-11 (Peter Pauper Press 1947) (1751); cf. Wilson, supra note 4, at 244.

^{310.} See Oliver Goldsmith, The Deserted Village (Caravel Press 1953) (1770). See generally James A. Montmarquet, Towards the Deserted Village: Agriculture and Agrarianism in Western Thought (1988).

C. Irretrievable and Incommensurable 311

Conscious decisions to allow the extinction of a species or the destruction of an entire ecosystem epitomize the "irreversible and irretrievable commitments of resources" that NEPA is designed to retard.³¹² The original Endangered Species Act gave such decisions no quarter whatsoever;³¹³ since 1979, such decisions have rested in the hands of a solemnly convened "God Squad."³¹⁴ In its permanence and gravity, natural extinction provides the baseline by which all other types of extinction should be judged.

The Endangered Species Act explicitly acknowledges the "esthetic, ecological, educational, historical, recreational, and scientific value" of endangered species and the biodiversity they represent.³¹⁵ Allied bodies of international law confirm this view:³¹⁶ global biological diversity is part of the commonly owned heritage of all humanity and deserves full legal protection.³¹⁷ Rather remarkably, these broad assertions understate the value of biodiversity and the urgency of its protection.

A Sand County Almanac, the eloquent bible of the modern environmental movement, contains only two demonstrable biological errors. It opens with one and closes with another. We can forgive Aldo Leopold's decision to close with that elegant but erroneous epigram, "ontogeny repeats phylogeny." What con-

^{311.} See generally Symposium, Law and Incommensurability, 146 U. Pa. L. Rev. 1169 (1998).

^{312. 42} U.S.C. § 4332(A)(C)(v) (1994).

^{313.} See TVA v. Hill, 437 U.S. 153, 184-85 (1978).

^{314.} See 16 U.S.C. § 1536(e) (1994) (establishing an "Endangered Species Committee" for the purpose of determining exceptions from the Endangered Species Act's otherwise inflexible restrictions).

^{315. 16} U.S.C. § 1531(a)(4) (1994).

^{316.} See Convention on International Trade in Endangered Species of Wild Fauna and Flora, 27 U.S.T. 1087, T.I.A.S. No. 8249 (1973) (entered into force July 1, 1975); Convention on Biological Diversity, U.N. Conference on Environment and Development, 31 I.L.M. 818 (1992) (entered into force Dec. 29, 1993).

^{317.} See Christopher D. Stone, What to Do About Biodiversity: Property Rights, Public Goods, and the Earth's Biological Riches, 68 S. Cal. L. Rev. 577, 591-92 (1995).

^{318.} ALDO LEOPOLD, A SAND COUNTY ALMANAC, WITH ESSAYS ON CONSERVATION FROM ROUND RIVER 293 (1966). For the definitive study of the rise, fall, and partial revival of Ernst Haeckel's maxim, "Ontogeny recapitulates phylogeny," see Stephen Jay Gould, Ontogeny and Philogeny (1977). Compare Gould, supra, at 76-78 (describing Haeckel's role in popularizing and in distorting Darwin's theories) with id. at 202-06 (describing how the discovery of Mendelian genetics undermined Haeckel's theories and rehabilitated those of his rival, Karl Ernst von Baer). Haeckel, incidentally, is credited with coining the term "ecology." See id. at 76 n.*. In ordinary language, "ontogeny recapitu-

cerns us is his opening gambit: "There are some who can live without wild things, and some who cannot." Not quite. None of us can live without wild things. Insects are so essential to life as we know it that if they "and other land-dwelling anthropods . . . were to disappear, humanity probably could not last more than a few months." Most of the amphibians, reptiles, birds, and mammals," along with "the bulk of the flowering plants and . . . the physical structure of most forests and other terrestrial habitats" would disappear in turn. The land would return to something resembling its Cambrian condition, "covered by mats of recumbent wind-pollinated vegetation, sprinkled with clumps of small trees and bushes here and there, largely devoid of animal life."

From this perspective, the mere thought of valuing biodiversity is absurd, much as any attempt to quantify all of earth's planetary amenities as some trillions of dollars per year is absurd. But the frustration inherent in enforcing the Convention on International Trade in Endangered Species (CITES) has shown that conservation cannot work without appeasing *Homo economicus*, the profit-seeking ape. Efforts to ban the international ivory trade through CITES have failed to stem the slaughter of African elephants.³²³ The preservation of biodiversity must therefore begin with a cold, calculating inventory of its benefits.

Fortunately, defending biodiversity preservation in humanity's self-interest is an easy task. As yet unexploited species might give a hungry world a larger larder than the storehouse of twenty plant species that provide nine-tenths of humanity's current food supply.³²⁴ "Waiting in the wings are tens of thousands of unused plant species, many demonstrably superior to those in favor."³²⁵ As genetic warehouses, many plants enhance the productivity of crops already in use. In the United States alone, the

lates phylogeny" means that the life history of any individual organism replays the entire evolutionary history of that organism's species.

^{319.} Leopold, supra note 318, at xvii.

^{320.} Wilson, supra note 4, at 133.

^{321.} Id.

^{322.} Id.

^{323.} See Edward Barbier et al., Elephants, Economics and Ivory 132-38 (1990); Cairncross, supra note 247, at 132-41; M. Glennon, Has International Law Failed the Elephant?, 84 Am. J. Int'l L. 1 (1990).

^{324.} See Wilson, supra note 4, at 287.

^{325.} *Id.* at 289; see also id. at 287 (reporting that 30,000 plant species are known to have edible parts and that 7,000 of these have grown or collected for food at some point in human history).

genes of wild plants have accounted for much of "the explosive growth in farm production since the 1930s." The contribution is worth \$1 billion each year.³²⁷

Nature's pharmacy demonstrates even more dramatic gains than nature's farm. 328 Aspirin and penicillin, our star analgesic and antibiotic, had humble origins in the meadowsweet plant and in cheese mold. 329 Leeches, vampire bats, and pit vipers all contribute anticoagulant drugs that reduce blood pressure, prevent heart attacks, and facilitate skin transplants. 330 Merck & Co., the multinational pharmaceutical company, is helping Costa Rica assay its rich biota. 331 A single commercially viable product derived "from, say, any one species among . . . 12,000 plants and 300,000 insects . . . could handsomely repay Merck's entire investment" of \$1 million in 1991 dollars. 332

Wild animals, plants, and microorganisms also provide ecological services.³³³ The Supreme Court has lauded the pesticidal talents of migratory birds.³³⁴ Numerous organisms process the air we breathe, the water we drink, the ground we stroll.³³⁵ Other species serve as sentries. Just as canaries warned coal miners of lethal gases, the decline or disappearance of indicator species provides advance warning against deeper

^{326.} National Ass'n of Home Builders v. Babbitt, 130 F.3d 1041, 1053 (D.C. Cir. 1997) (opinion of Wald, J.), cert. denied, 118 S. Ct. 2340 (1998).

^{327.} See Endangered Species Act: Oversight Hearing Before the Task Force on Endangered Species Act of the Comm. on Resources, House of Representatives, 104th Cong., 1st Sess. 190 (1995).

^{328.} See generally Medicinal Uses of Plants; Protection for Plants Under the Endangered Species Act: Hearing Before the Subcomm. On Environment and Natural Resources of the House Comm. on Merchant Marine and Fisheries, 103d Cong., 1st Sess. (1993).

^{329.} On aspirin, see Wilson, supra note 4, at 283. On penicillin, see Home Builders, 130 F.3d at 1053 n.13; BIODIVERSITY II: UNDERSTANDING AND PROTECTING OUR BIOLOGICAL RESOURCES 9 (Marjoie L. Reaka-Kudla et al. eds., 1997).

^{330.} See Wilson, supra note 4, at 285-86; Biodiversity II, supra note 329, at 9.

^{331.} See generally Michael D. Coughlin, Jr., Recent Development, Using the Merck-INBio Agreement to Clarify the Convention on Biological Diversity, 31 COLUM. J. TRANSNAT'L L. 337, 356-72 (1993).

^{332.} Wilson, supra note 4, at 321.

^{333.} See generally EHRLICH & EHRLICH, supra note 200, at 86-95.

^{334.} Missouri v. Holland, 252 U.S. 416, 435 (1920) (describing migratory birds as "protectors of our forests and our crops" and as a "food supply" in themselves). But cf. Cargill, Inc. v. United States, 516 U.S. 955, 956-59 (1995) (Thomas, J., dissenting from denial of certiorari) (questioning whether the presence of migratory birds on private land bears a constitutionally sufficient connection to interstate or international commerce).

^{335.} See Mann & Plummer, supra note 226, at 123; Nagle, supra note 226, at 1210.

environmental threats.³³⁶ Species conservation yields the greatest environmental amenity of all: ecosystem protection. Saving discrete species indirectly protects the ecosystems in which they live.³³⁷ Some larger animals may not carry great utilitarian value in themselves, but the human urge to protect these charismatic "flagship species" helps protect their ecosystems.³³⁸ Indeed, to save any species, we must protect their ecosystems.³³⁹

Defenders of biodiversity can measure the "tangible economic value" of the pleasure derived from "visiting, photographing, painting, and just looking at wildlife."³⁴⁰ In the United States alone, wildlife observation and feeding in 1991 generated \$18.1 billion in consumer spending, \$3 billion in tax revenues, and 766,000 jobs.³⁴¹ Ecotourism gives tropical countries, home to most of the world's species, a valuable alternative to subsistence agriculture. Costa Rican rainforests preserved for ecotourism "have become many times more profitable per hectare than land cleared for pastures and fields," while the endangered gorilla has turned ecotourism into "the third most important source of income in Rwanda."³⁴² In a globalized economy where commodities can be cultivated almost anywhere, environmen-

^{336.} See Oliver A. Houck, Why Do We Protect Endangered Species, and What Does That Say About Whether Restrictions on Private Property to Protect Them Constitute "Takings"?, 80 Iowa L. Rev. 297, 301 & n.20 (1995).

^{337.} See J.B. Ruhl, Thinking of Environmental Law as a Complex Adaptive System: How to Clean Up the Environment by Making a Mess of Environmental Law, 34 Hous. L. Rev. 933, 972 (1997).

^{338.} See Paul R. Ehrlich & Edward O. Wilson, Biodiversity Studies: Science and Policy, 253 Science 758, 760 (1991); cf. Alan Randall, Human Preferences, Economics and the Preservation of Species, in The Preservation of Species: The Value of Biological Diversity 79, 87-88 (Bryan G. Norton ed., 1986) (noting and criticizing the human preference for species with utilitarian value, legendary or patriotic significance, or some intangible appeal to the human sense of beauty). See generally The Biophilia Hypothesis (Stephen R. Kellert & Edward O. Wilson eds., 1993).

^{339.} See, e.g., Myrl L. Duncan, Property as a Public Soliloquy: A Role for Intellectual and Legal History in Takings Analysis, 26 Envil. L. 1095, 1129 (1996); cf. Bryan G. Norton, Why Preserve Natural Variety? 169-82 (2d ed. 1990) (outlining a nonanthopocentric ethical case for conserving species and ecosystems).

^{340.} Nagle, supra note 226, at 1209.

^{341.} See James D. Caudill, U.S. Fish & Wildlife Serv., 1991 Economic Impacts of Nonconsumptive Wildlife-Related Recreation 6-7 (1997); see also Nagle, supra note 226, at 1209-10 (distinguishing between amounts spent on wildlife observation in general and on the observation of endangered species in particular).

^{342.} WILSON, supra note 4, at 305 ("As Rwanda protects the gorilla, the gorilla will help to save Rwanda.").

tally sensitive locales can maximize their wealth by exploiting the "boutique" uses of their natural bounty.

The value of endangered species and the biodiversity they embody is "literally . . . incalculable."343 What, if anything, should the law do to preserve it? There are those that invoke the story of Noah's Ark as a moral basis for biodiversity preservation.³⁴⁴ Others regard the entire Judeo-Christian tradition. especially the biblical stories of Creation and the Flood, as the root of the West's deplorable environmental record. 345 To avoid getting bogged down in an environmental exegesis of Judeo-Christian "myth and legend," we should let Charles Darwin and evolutionary biology determine the imperatives of our moment in natural "history."346 The loss of biological diversity is quite arguably the gravest problem facing humanity. If we cast the question as the contemporary phenomenon that "our descendants [will] most regret," the "loss of genetic and species diversity by the destruction of natural habitats" is worse than even "energy depletion, economic collapse, limited nuclear war, or conquest by a totalitarian government."347 Natural evolution may in due course renew the earth with a diversity of species approximating that of a world unspoiled by *Homo sapiens* — in ten million years, perhaps a hundred million.³⁴⁸

 $^{343.\ \}text{TVA}$ v. Hill, $437\ \text{U.S.}$ $153,\ 178\ (1978)$ (internal quotation marks omitted).

^{344.} See, e.g., Albert Gore, Earth in the Balance: Ecology and the Human Spirit 244-45 (1992) (reducing the story of Noah's Ark to an implied commandment, "Thou shalt protect biological diversity"); Bruce Babbitt, The Future Environmental Agenda for the United States, 64 U. Colo. L. Rev. 513, 517 (1993) (describing the story of Noah's Ark as an "argument for preservation of God's creation"); Nagle, supra note 226.

^{345.} See, e.g., Lynn White, Jr., The Historical Roots of Our Ecological Crisis, 155 Science 1203 (1967).

^{346.} James Barr, The Scope and Authority of the Bible 7 (1980) (reminding Christians that the "primeval" and "supremely important" stories of "creation . . . Noah and the flood" belong to the realm of "myth and legend" rather than that of "history").

^{347.} E.O. Wilson, Toward a Lasting Conservation Ethic, in Hearings Before the Subcomm. on Environmental Pollution of the Senate Environment and Public Works Comm., 97th Cong., 1st Sess. 366 (1981); see also WILSON, supra note 4, at 254 ("I cannot imagine a scientific problem of greater immediate importance for humanity.").

^{348.} See Wilson, supra note 4, at 330 (noting that "full recovery of biodiversity" after the five previous "great extinction episodes of geological history . . . required between 10 and 100 million years").

D. NAKED BRIBERY

Globalization as disease is far less bitter than most of the usual legal cures. Some portion of the enormous wealth generated by comparative advantage and the free movement of persons and assets must be redirected. Globalization does create losers, and those losers' flawed efforts at self-help, if unchecked, will beggar us all. Legislatively adopted trade restraints drain consumer welfare, but that is the least of the trouble. Desperate efforts to stave off starvation are despoiling the global commons. The English monarchy, even at its most corrupt and extravagant, got it right; contemporary critics of free trade have missed the mark. Compensate with cash to the extent you can, and reserve the injunctive power of the chancery for the truly incommensurate.

To put it bluntly, we need to bribe the losers. Cash will do. Naked bribery is cost-effective. Tor example, in the place of the socially and politically expensive voluntary export restraints (VERs) that the Japanese automobile industry adopted in the early 1980s under pressure from the United States government, have a solution and the paid \$37,000 in 1984 for each of the 23,800 autoworking jobs at stake. The resulting \$881 million welfare program would have been far cheaper than the \$3 billion that American consumers absorbed that year in higher car prices. That figure does not include additional savings attributable to the correction of spending patterns that were otherwise distorted by the VERs. The malicious distributional impact of this protectionist scheme also bears noting. The average autoworker who benefited from the VERs earned \$15,000 more than the average American worker.

Agriculture, that trove of intractable international trade disputes, provides another example. The federal sugar program has effectively impounded the revenues for an agricultural wel-

^{349.} See generally Jim Chen & Daniel J. Gifford, Law as Industrial Policy: Economic Analysis of Law in a New Key, 25 U. Memphis L. Rev. 1315, 1356-61 (1995).

^{350.} See generally CLYDE V. Prestowitz, Jr., Trading Places 421-23 (1989) (documenting the international and domestic manuvering that led to the negotiation of the VERs).

^{351.} See Junichi Goto, Imperfect Competition and the Japan-US Automobile Trade, in International Trade Modeling 107, 125-26 (M.G. Dagenais & P.A Muet eds. 1992).

^{352.} See id. at 126. See generally Junichi Goto, Labor in International Trade Theory: A New Perspective on Japanese-American Issues 48-74 (1990) (describing the impact of labor relations within the American automobile industry on Japanese-American trade relations at large).

fare program that delivers up to \$60,000 per year in benefits to the average beet or cane farmer in the United States.³⁵³ The sugar program packs an economic punch not measurably less than that of the fiscally intense farm support programs under which the U.S. government spends \$80,000 per year for each farm job saved.³⁵⁴

And this is not even to mention the environmental impact of indirect sugar subsidies. The sugar program has an especially deleterious effect on the Everglades, home to fifty-five endangered species, including the Florida panther.³⁵⁵ Conservation programs such as Swampbuster³⁵⁶ do not reduce the economic benefits realized by subsidized sugar planters and therefore cannot affect their incentives.³⁵⁷ The sugar program's \$1 billion price tag dwarfs the \$1 million annual budget for saving the Florida panther and the \$2 million tabbed yearly for the preservation of Seminole and all other native American languages.³⁵⁸

^{353.} See Katherine E. Monahan, U.S. Sugar Policy: Domestic and International Repercussions of Sour Law, 15 Hastings Int'l & Comp. L. Rev. 325, 341 (1992); cf. id. at 344 ("For every dollar transferred to U.S. sugar producers, U.S. consumers pay 2.56 to 2.62 dollars. . . . [T]he present policy is a highly inefficient means of achieving its stated goal of domestic producer support.").

^{354.} See Thomas W. Hertzel et al., Economywide Effects of Unilateral Trade and Policy Liberalization in U.S. Agriculture, in Macroeconomic Consequences of Farm Support Policies 260, 261 (Andrew B. Stoeckel et al. eds., 1989); Jeffrey J. Steinle, Note, The Problem Child of World Trade: Reform School for Agriculture, 4 Minn. J. Global Trade 333, 340-41 (1995).

^{355.} See David Malin Roodman, Paying the Piper: Subsidies, Politics, and the Environment 22 (1996); Barton H. Thompson, Jr., People or Prairie Chickens: The Uncertain Search for Optimal Biodiversity, 51 Stan. L. Rev. 1127, 1166 (1999).

^{356.} See Food Security Act of 1985, 16 U.S.C. §§ 3811-3813, 3821-3823 (1994).

^{357.} See ROBERT REPETTO, TRADE AND SUSTAINABLE DEVELOPMENT 12-15, 134-35 (1994); Dana Clark & David Downes, What Price Biodiversity? Economic Incentives and Biodiversity Conversion in the United States, 11 J. ENVIL. L. & LITIG. 9, 46-47 (1996); see also Dalana W. Johnson, Saving Wetlands from Agriculture: An Examination of Section 404 of the Clean Water Act and the Conservation Provisions of the 1985 and 1990 Farm Bills, 7 J. Land Use & Envil. L. 299, 310 (1992) (reporting that fewer than 200 farmers lost federal benefits during Swampbuster's first five years).

^{358.} Compare Clark & Downes, supra note 357, at 47 (reporting that the sugar price supports cost U.S. consumers \$1 billion a year) with Indian Languages Facing Extinction, N.Y. Times, April 12, 1998, at A1 (reporting that the federal government spends \$1 million annually on preserving the Florida panther and barely twice that amount on preserving native American languages). See also Terrence J. Sorz, Comment, Global Hunger, a Doubling Population, and Environmental Degradation: Justifying Radical Changes in U.S. Farm Policy, 6 Ind. Int'l & Comp. L. Rev. 679, 713 (1996) (estimating that sugar, peanut, and dairy price supports cost U.S. consumers \$2 billion each year).

The 1996 farm bill,³⁵⁹ widely regarded as the most market-oriented agricultural statute ever adopted by the federal government, left the sugar program practically untouched.³⁶⁰

As difficult as it may seem to reform the transpacific automobile trade or the American sugar program, these are the easy cases. These bribes involve wealth transfers from relatively wealthy consumers to producers in declining industries. We have not even begun to consider the cooperative effort necessary to develop community-based, sustainable management of elephants and rhinoceroses, much less the magnitude of the bribes necessary to retire vast portions of the earth's surface from human occupation. For the moment, it suffices to advocate two general shifts in policy. First, developed nations should try to eschew trade sanctions in favor of solutions based on wealth and technology transfer. Second, rather than rejecting "green aid" as "eco-colonialis[t]" incursions on their sovereignty, developing nations should "accept[] the fact that the rest of the world has an interest" in their wildlife and forests.³⁶¹

A commitment to globalization will not come free of cost. Preserving the legal primacy of free trade and the freedom of movement of capital and labor across national borders will eliminate a good measure of cultural diversity. After documenting the human propensity toward xenophobia and genocide in all times and all places, Jared Diamond surmises that "loss of cultural diversity may be the price we have to pay for survival." This sad conclusion applies with equal force to efforts to save the global commons. Not every effort can protect both endangered species and endangered human cultures. If choose we must, then culture should lose. Certain local tastes will have to yield,

^{359.} See Federal Agriculture Improvement and Reform Act of 1996, Act of April 4, 1996, Pub. L. No. 104-127, 110 Stat. 888 (codified in scattered sections of 7, 16, 20, and 21 U.S.C.).

^{360.} See H.R. Rep. 104-462, at 46, 65-66 (1996), reprinted in 1996 U.S.C.C.A.N. 611, 618, 638-39; Christopher R. Kelley, Recent Farm Program Developments, 4 Drake J. Agric. L. 93, 117 (1999) (describing the 1996 farm bill as replacing previous authorizations for nonrecourse loans and marketing assessments in the sugar program).

^{361.} Cairneross, supra note 247, at 154.

^{362.} DIAMOND, supra note 170, at 234.

^{363.} Cf. Robert J. Miller, Speaking with Forked Tongues: Indian Treaties, Salmon, and the Endangered Species Act, 70 Or. L. Rev. 543, 574 (1991) (suggesting that the federal government's obligation to protect Indian tribes and cultures from extinction outweighs its obligation to protect endangered species); Sandi B. Zellmer, Indian Lands as Critical Habitat for Indian Nations and Endangered Species: Tribal Survival And Sovereignty Come First, 43 S.D. L. Rev. 381 (1998) (same). See generally Carl H. Johnson, Note, Balancing Species Pro-

if only because memes rejuvenate much more quickly than genes. The International Convention on Whaling³⁶⁴ should override the Japanese³⁶⁵ or even the Makah³⁶⁶ taste for whaling and whalemeat. The larger world can no longer abide the east Asian obsession with rhinoceros horn or black bear gall bladder.³⁶⁷ There may be no way to protect the golden eagle without extinguishing elements of Plains Indian culture.³⁶⁸

Choosing the natural environment over human culture is not a question of favoring animal over human welfare. 369 Rather, that choice acknowledges that human culture has no meaning except by reference to natural history. Aldo Leopold said it succinctly and best: "man-made changes are of a different order and evolutionary changes, and have effects more comprehensive than is intended or foreseen." Retreat often enough from the ecosystem ethic in the name of short-term profit or even a cultural tradition, and *Homo sapiens* will jeopardize its own survival. Only by tracing "feeling and myth back through time past cultural history to the evolutionary origins of human nature" can we grasp a hint of the "beauty and mystery that seized us at the beginning," of "[e]very contour of the

tection with Tribal Sovereignty: What Does The Tribal Rights-Endangered Species Order Accomplish?, 83 Minn. L. Rev. 523 (1998).

^{364.} International Convention for the Regulation of Whaling with Schedule of Whaling Regulations, Dec. 2, 1946, 62 Stat. 1716, T.I.A.S. No. 1849, 161 U.N.T.S. 361 (1948).

^{365.} See Kazuo Sumi, The Whale War Between Japan and the United States: Problems and Prospects, 17 Denv. J. Int'l L. & Pol'y 317 (1989).

^{366.} See North Pacific Eastern Stock of Gray Whales, 48 Rep. Int'l Whaling Comm'n 28 (1997) (applying the whaling convention's exemption for "the traditional uses of whale product by local aboriginal, indigenous or native communities in meeting their nutritional, subsistence and cultural requirements"); United States v. Washington, 730 F.2d 1314 (9th Cir. 1984); Alma Soongi Beck, The Makah's Decision to Reinstate Whaling: When Conservationists Clash With Native Americans Over an Ancient Hunting Tradition, 11 J. Envill. L. & Litig. 359 (1996); Leesteffy Jenkins & Cara Romanzo, Makah Whaling: Aboriginal Subsistence or a Stepping Stone to Undermining the Commercial Whaling Moratorium?, 9 Colo. J. Envill. L. & Pol'y 71 (1998).

^{367.} See William Carroll Muffett, Regulating the Trade in Bear Parts for Use in Asian Traditional Medicine, 80 Minn. L. Rev. 1283 (1996).

^{368.} See Andrus v. Allard, 444 U.S. 51 (1979).

^{369.} See J.B. Callicott, Animal Liberation: A Triangular Affair, 2 Envil. Ethics 311 (1980).

^{370.} LEOPOLD, supra note 318, at 255.

^{371.} EDWARD O. WILSON, BIOPHILIA 55 (1984); cf. DANIEL A. FARBER, ECO-PRAGMATISM: MAKING SENSIBLE ENVIRONMENTAL DECISIONS IN AN UNCERTAIN WORLD 205 (1999) ("[E] nvironmentalism cannot take the form of a 'Berlin wall' keeping the humans out and the animals in. Instead, we must envision long-term connections between humans and nature, requiring continual change and adaptation on both sides.").

terrain, every plant and animal living in it, and the human intellect that masters them all."372

Alas, "times are coming when [tigers] will no longer be viable, except in zoos and other preserves, and the same is true of many of the treasures in our cultural heritage."³⁷³ Condors and the Welsh language alike are being "kept alive by artificial means."³⁷⁴ The only means of life support we know will require a colossal infusion of wealth. For good and for ill, the capitalist model of globalization, the greatest engine of wealth ever devised, holds the lone key.

IV. LAW AND LOSERS

Law, for want of a better justification, is about losers. At the fin du millénaire, globalization has created a horde of losers as the world has never seen. Those losers in turn will exploit the political freedom that has accompanied the expansion and diffusion of wealth under globalization. The resulting cascade of trade barriers will surely suffocate globalized society unless we find some way to compensate worthy claims and refuse the rest. This is the way the world ends, this is the way the world ends, this is the way the world ends, not with a bang but a whine.³⁷⁵

Free trade, the idea that made globalization possible, deserves to retain its legal and economic supremacy. In a world full of losers, the case for trade liberalization becomes all the stronger. "If patriotism is . . . the last refuge of the scoundrel, wrapping outdated industry in the mantle of national interest is the last refuge of the economically dispossessed." Faced as always with the plea that "farmers" and other endangered entities "must be protected against competition from without, lest they go upon the poor relief lists or perish altogether, "377 international economic law must steadfastly insist "that the peoples of the [world] must sink or swim together, . . . that in the long run prosperity and salvation are in union and not division."

^{372.} Edward O. Wilson, Consilience: The Unity of Knowledge 237 (1998).

^{373.} DENNETT, supra note 9, at 514.

^{374.} Id.

^{375.} Cf. T.S. ELIOT, The Hollow Men, in POEMS: 1909-1925, at 123, 128 (Faber & Faber 1925) ("Not with a bang but a whimper.").

^{376.} Ohmae, supra note 92, at 62.

^{377.} Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 511, 522 (1935).

^{378.} Id. at 522-23.

"[T]here is one story in the world, and only one."³⁷⁹ In all creation, Darwin's "idea of evolution through natural selection" is "the best idea anyone has ever had."³⁸⁰ If there is a concept that, in a single intellectual stroke, can unite human knowledge even as it cures the gravest crisis facing humanity,³⁸¹ it is evolution. Darwin's dangerous idea counsels enormous reverence for genes (especially those from nonhuman sources), measured respect for memes, and little to no regard for jobs. Behold then the unholy trinity of international trade law, the three remaining lines of argument by which trade liberalization can be derailed. Now abide labor, culture, and ecology, these three. And the least of these is labor.

When protecting either humanity's cultural heritage or the world's natural treasures, international law prescribes the same lofty goal: "transmission to future generations." At any level of government, "the public interest.... requires stopping unjust impoverishment of future generations." The "developmental and environmental needs of present and future generations" cannot be fulfilled in isolation" from "environmental protection." [S] ustainable development" cannot proceed unless "[h] uman beings" lead "a healthy and productive life in harmony with nature." By these means alone can we assure our children that neither they, nor the most treasured values of their forebears, nor their natural legacy "shall... perish from the earth." If indeed positive law forms "a covenant" across human generations, then "[e] ach generation must [reject] anew... ideas and aspirations" not fit to "survive more ages than

^{379.} JOHN STEINBECK, EAST OF EDEN 413 (1952).

^{380.} Dennett, supra note 9, at 21.

^{381.} See Wilson, supra note 372.

^{382.} Convention for the Protection of the World Cultural and Natural Heritage Convention, Nov. 16, 1972, 11 I.L.M. 1358, 1359.

^{383.} FPC v. Hope Natural Gas Co., 320 U.S. 591, 657 (1944) (Jackson, J., dissenting).

^{384.} Rio Declaration on the Environment and Development, U.N. Conference on Environment and Development, June 14, 1992, princ. 3, 4, 31 I.L.M. 874 (1992).

^{385.} *Id.* princ. 1.

^{386.} ABRAHAM LINCOLN, Gettysburg Address (Nov. 19, 1863), in ABRAHAM LINCOLN: SPEECHES AND WRITINGS 1859-1865, at 536, 536 (1989).

one." 387 One generation passes away, and another generation comes, but the earth abides forever. 388

^{387.} Planned Parenthood v. Casey, 505 U.S. 833, 901 (1992); cf. National Environmental Policy Act of 1969, § 101(a), 42 U.S.C. § 4331(a) (1994) (declaring "the continuing policy of the Federal Government... to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations").

^{388.} Ecclesiastes 1:4.