Beyond Fairness to Future Generations: An Intragenerational Alternative to Intergenerational Equity in the International Environmental Arena

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I. INTRODUCTION

For more than a century, concern about the welfare of future generations has been near the center of the ongoing debate among American policymakers, scholars, and others about environmental matters both inside and outside of the United States.[1] Professor Edith Brown Weiss's book, *In Fairness to Future Generations*, remains the most comprehensive and important scholarly contribution to the legal

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1. *See* SENATOR AL GORE, EARTH IN THE BALANCE 235-36 (1992); STEWART L. UDALL, THE QUIET CRISIS AND THE NEXT GENERATION 180-82, 188-91 (1988); GIFFORD PINCHOT, BREAKING NEW GROUND 322-26, 504-05 (Island Press 1987) (1947); GEORGE PERKINS MARSH, MAN AND NATURE 46, 280 n.250, 435-36 (David Lowenthal ed., Belknap Press of Harv. Univ. Press 1965) (1864); Michael A. Toman, *Economics and "Sustainability": Balancing Trade-offs and Imperatives*, 70 LAND ECON. 399 (1994); Ted Allen, Note, *The Philippine Children's Case: Recognizing Legal Standing for Future Generations*, 6 GEO. INT'L ENVTL. L. REV. 713-15 (1994); Raymond A. Just, Comment, *Intergenerational Standing Under the Endangered Species Act: Giving Back the Right to Biodiversity After* Lujan v. Defenders of Wildlife, 71 TUL. L. REV. 597 (1996).

aspects of this debate.[2] As the title of her book suggests, Professor Weiss is concerned primarily with ensuring the well-being of future generations by preventing this or any successor generation from squandering the natural and cultural resources of the planet.[3] She expresses this concern in the form of a call for "intergenerational equity," by which she means a minimum level of equality among generations in the richness of the natural and cultural resource base inherited by each generation from previous generations.[4] At the core of Professor Weiss's proposal is the following proposition:

> We, as a species, hold the natural and cultural environment of our planet in common, both with other members of the present generation and with other generations, past and future. At any given time, each generation is both a custodian or trustee of the planet for future generations and a beneficiary of its fruits. This imposes obligations upon us to care for the planet and gives us certain rights to use it.[5]

From this basic proposition Professor Weiss derives an array of rights and duties, some of which are intergenerational and some of which are intragenerational. She also proposes several strategies for implementing her proposal.

This Article critiques Professor Weiss's proposal, and offers an alternative that would accomplish the same goals but would be more likely to attract the support of the Western industrial democracies, which must be in the vanguard of any effort to achieve intergenerational equity in environmental matters if that effort is to succeed.[6] Part II of this Article summarizes Professor Weiss's proposal and identifies one major question that it leaves unanswered. Part III argues that the theoretical foundation on which Professor Weiss's proposal rests is flawed with major Western cultural and legal traditions, in that it is inconsistent and proposes an alternative theoretical foundation that does not suffer from this flaw. Part

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2. EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS (1989) [hereinafter WEISS]; *see also* Edith Brown Weiss, *Intergenerational Equity: Toward an International Legal Framework*, *in* GLOBAL ACCORD 333 (Nazli Choucri ed., 1993); Edith Brown Weiss, *In Fairness to Future Generations*, 8 AM. U. J. INT'L L. & POL'Y 19 (1992); Edith Brown Weiss, *Our Rights and Obligations to Future Generations for the Environment*, 84 AM. J. INT'L L. 198 (1990); Edith Brown Weiss, *Intergenerational Equity in International Law*, 1987 PROC. ANN. MEETING AM. SOC'Y INT'L L. 126; Edith Brown Weiss, *The Planetary Trust: Conservation and Intergenerational Equity*, 11 ECOLOGY L.Q. 495 (1984); Edith Brown Weiss, *In Fairness to Future Generations*, ENVIRONMENT, Apr. 1990, at 7.

3. *See* WEISS, *supra* note 2, at 1-2.

4. *See id.* at 23-25.

5. *Id.* at 17 (footnote omitted).

6. Although this Article is couched primarily in terms of achieving equity for future generations in *environmental* matters, most of its arguments would apply equally well to achieving equity for future generations in cultural matters.

IV describes the new legal order that this alternative theoretical foundation implies. The Article concludes with some additional observations about the likelihood that intergenerational equity in environmental matters can and will be achieved.

II. PROFESSOR WEISS'S PROPOSAL

Professor Weiss's proposal incorporates an array of rights and duties, some of which are intergenerational and some of which are intragenerational. At the highest level of generality, every generation has two intergenerational duties: (1) a duty to pass on the Earth to the next generation in as good a condition as it was when that generation first received it and (2) a duty to repair any damage caused by any failure of previous generations to do the same.[7] Every generation owes these duties to future generations as a class, irrespective of nationality.[8] From these duties, Professor Weiss derives three more specific principles of intergenerational equity, which incorporate one right and four duties. According to these three principles, every generation should have a right to inherit the Earth in a condition comparable to that enjoyed by previous generations.[9] In addition, every generation should be required to:

> (1) conserve the diversity of the Earth's natural and cultural resource base;
> (2) conserve environmental quality so that the Earth may be passed on to the next generation in as good a condition as it was in when it was received from the previous generation;
> (3) provide all members with equitable access to the resource base inherited from past generations; and
> (4) conserve this equitable access for future generations.[10]

In other words, every generation should be required to practice "sustainable development," defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[11]

Not all countries, however, are wealthy enough to practice sustainable development. For this reason, Professor Weiss articulates an *intra*generational duty. Wealthier countries and communities are obliged to help finance the efforts of poorer countries and communities to comply with their intergenerational duties, to assist them in gaining access to the

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7. *See id.* at 23-26.
8. *See id.* at 26.
9. *See id.* at 38; *see also id.* at 97.
10. *See id.* at 38.
11. *Id.* at 39 (quoting COMMISSION ON ENVIRONMENT & DEVELOPMENT, OUR COMMON FUTURE 43 (1987)).

planetary legacy left by previous generations, and to help protect them from environmental harm.[12]

All of the rights and duties described so far, whether inter-generational or intragenerational, are *group* rights and duties.[13] These rights and duties attach to collectivities of members of each generation.[14] Professor Weiss's proposal also embraces a number of individual rights and duties.[15] These rights and duties are intragenerational. They correspond to the intergenerational group rights and duties, and are derived from them.[16] For example, members of the present generation have an individual right of access to the natural and cultural resource legacy left to them by previous generations, and an individual duty to ensure that wealthier members of the present generation assist poorer members to gain that access.[17] This right and this duty correspond to the right and this duty incorporated in the intergenerational principle of equitable resource access.[18]

After having sketched out this framework of general rights and duties, Professor Weiss goes on to enumerate a plethora of specific rights and duties derived from the general ones, and argues that these specific rights and duties should be codified as law.[19] The principle of intergenerational equity that incorporates a duty to conserve the natural and cultural resource base, for example, implies a more specific duty to develop more efficient resource extraction and consumption techniques.[20]

Professor Weiss also offers several strategies for implementing her proposal.[21] As an initial matter, she envisions states serving as guarantors of the relevant rights and duties.[22] With that in mind, she proposes a number of innovative implementation strategies.[23] One of the most important of these strategies would involve establishing one or more Planetary Rights Commissions, which would function in a manner similar to the commissions established under various international human rights conventions.[24] These commissions would provide an international forum for states—as guarantors of the rights and duties in Professor Weiss's

12. *See id.* at 27-28.
13. *See id.* at 45, 96-99.
14. *See id.*
15. *See id.* at 45, 97.
16. *See id.*
17. *See id.* at 43-45.
18. *See id.* at 43-45, 47.
19. *Id.* at 47-117, 164-65.
20. *See id.* at 50-51.
21. *See id.* at 119-65.
22. *See id.* at 48, 109.
23. *See id.* at 119-65.
24. *See id.* at 111-13.

scheme—and perhaps individuals, to bring complaints for rights violations.[25] The commissions would investigate the complaints and render decisions on them.[26]

Despite the comprehensiveness of Professor Weiss's proposal, it leaves one major question unanswered: On what theory are we most likely to be able to conclude that the peoples of the world would abandon the current legal order in favor of a new one that would achieve intergenerational equity in environmental matters? This question, in turn, gives rise to a second one: How might a legal order based on such a theory differ from that envisioned by Professor Weiss? Let us turn to the first of these questions.

III. ABANDONING THE CURRENT LEGAL ORDER

Professor Weiss observes that principles of intergenerational equity must be acceptable to the various cultural, political, and economic traditions of the world.[27] In an effort to demonstrate how her proposal meets this criterion, Professor Weiss invokes the concern for future generations ostensibly inherent in many of the world's major legal and religious traditions.[28] Under Islamic law, for example, the members of the present generation inherit the Earth as fiduciaries for future generations.[29] The members of the present generation may use the Earth's resources to meet their current needs, but must not prejudice the ability of future generations to use it to meet their needs.[30] African customary law imposes similar obligations.[31] It treats the members of the present generation as mere tenants on the land, with obligations to both future and past generations.[32] In Asia, various nontheistic religions emphasize related principles, such as respect for the natural world and the needs of future generations.[33]

These aspects of non-Western legal and religious traditions are interesting, but are unlikely to be of much help in alleviating the most serious environmental threats to future generations. As a practical matter, the Western industrial democracies have been primarily or predominantly responsible for creating many of these threats. Stratospheric ozone

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25. *See id.* at 110-13.
26. *See id.* at 113.
27. *See id.* at 38.
28. *See id.* at 17-21.
29. *See id.* at 18 (citing ISLAMIC PRINCIPLES FOR THE CONSERVATION OF THE NATURAL ENVIRONMENT 13-14 (IUCN and Saudi Arabia (1983)).
30. *See id.*
31. *See id.* at 20.
32. *See id.*
33. *See id.*

depletion and the threat of global climate change, for example, are primarily (in the case of ozone depletion) or at least predominantly (in the case of the threat of global climate change) the products of Western technologies and lifestyles. Less developed countries have been only secondarily responsible.[34] The Western industrial democracies also are

34. Stratospheric ozone depletion is the result of complex chemical reactions in the upper atmosphere caused by anthropogenic emissions of certain synthetic organic chemicals. *See* RICHARD ELLIOT BENEDICK, OZONE DIPLOMACY 10-20, 108, 110-11 (1991). In 1986, the year negotiations began on the Montreal Protocol—the international agreement that began the process of phasing out the production and consumption of the most important of these chemicals—the United States accounted for an estimated 30% of world production of the eight chemicals later covered by the Protocol, while the European Community accounted for an estimated 43% to 45%. Japan accounted for an estimated 11% to 12%; the Soviet Union accounted for an estimated 9% to 10%; and an assortment of at least eight other countries from the developed and less developed worlds accounted for the remaining 3% to 7%. *See id.* at 26. Also in the mid-1980s, the annual per capita use of CFC-11 and CFC-12—the first of the ozone depleting chemicals to be of concern to scientists—was approximately 12 to 42 times higher in the United States and the European Community than in such less developed countries as Mexico, Egypt, and the People's Republic of China. Japan's annual per capita use of CFC-11 and CFC-12 was less than 60% of that of the United States and the European Community, and the Soviet Union's appears to have been approximately 35% of that of the United States and the European Community, although the Soviet contribution was expected to rise upon completion of a large CFC production facility then under construction. *See* James T.B. Tripp, *The UNEP Montreal Protocol: Industrialized and Developing Countries Sharing the Responsibility for Protecting the Stratospheric Ozone Layer*, 20 N.Y.U. J. INT'L L. & POL. 733 (1988); *see also* BENEDICK, *supra*, at 15 n.38 (expansion of the list of ozone depleting chemicals of scientific concern).

The threat of global climate change has been created by increased atmospheric concentrations of so-called "greenhouse gases," which permit inbound solar energy to reach the Earth's surface, but trap outbound radiation that otherwise would escape into space. Fossil fuel combustion and land use changes such as deforestation have been primarily responsible for creating the threat of global climate change, with fossil fuel combustion being the major contributor. These activities produce large amounts of carbon dioxide (CO2), which has been responsible for approximately 60% of the increased heat-trapping potential of the atmosphere over the past two centuries. *See* WORKING GROUP I, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE: THE IPCC SCIENTIFIC ASSESSMENT xxxvi-xxxvii, 10-11, 13 (J.T. Houghton et al. eds., 1990). The North American and European members of the Organization for Economic Cooperation and Development (OECD) together have accounted for approximately 46% of global emissions of CO2 over time. The former Soviet Union and the countries of Eastern Europe together have accounted for approximately 17% of global emissions of CO2 over time, and Japan has accounted for approximately 2%. *See* WORKING GROUP III, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 1995: ECONOMIC AND SOCIAL DIMENSIONS OF CLIMATE CHANGE 94 tbl. 3.1 (James P. Bruce et al. eds., 1996). In 1993, the OECD countries accounted for approximately 50% of the annual worldwide CO2 emissions from the combustion of fossil fuels, with about half of that accounted for by the United States alone. The former Soviet Union and the countries of Eastern Europe accounted for 17% of annual worldwide CO2 emissions from the combustion of fossil fuels, and the less developed countries accounted for approximately 33%. Also in 1993, average annual per capita emissions of CO2 from the combustion of fossil fuels in North America and Australia were from one and a half to three times greater than in Europe, the former Soviet Union, and Japan; and from at least four and a half to twenty times greater than in much of the rest of the world. Although a relatively small number of less developed countries were responsible for almost all of the CO2 emissions from deforestation in the early 1990s, these emissions are thought to have accounted

largely to blame for the loss of biodiversity occasioned by tropical deforestation, given the dominant role that they have played in creating and maintaining the international economic conditions that encourage less developed tropical countries to cut down their forests in order to generate foreign exchange through the export of raw logs and the conversion of land to the production of agricultural export crops.[35] In any case, the 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. If intergenerational equity in environmental matters is to be justified theoretically by an appeal to the ideological content of existing religious or legal traditions, then those traditions must, to a preponderant extent, be the traditions of the West.

Professor Weiss makes a number of observations in this regard. First, she claims that, according to Genesis, "God gave the earth to [H]is people and their offspring as an everlasting possession, to be cared for and passed on to each generation."[36] As historian Lynn White, Jr., has argued, however, the relationship of the Judeo-Christian tradition to the environment has been antipathetic at best, and hostile at worst, both in theory and in practice.[37] This relationship suggests that the Judeo-Christian tradition would be unlikely to provide much practical support

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for only about 15% to 20% of total CO2 emissions worldwide during that period. *See id.* at 94-95, Fig. 3.1.

Precisely what proportion of the blame for stratospheric ozone depletion and the threat of global climate change should be allocated to the "Western industrial democracies" depends in part on whether Japan, Russia, and any of several formerly socialist countries in East-Central Europe or the European portion of the former Soviet Union are sufficiently Western in a cultural sense—or, in some cases, sufficiently democratic—to be counted among the Western industrial democracies. Given the cultural isolation of these countries from the major loci of Western democratic values in Western Europe, North America, and elsewhere during the Cold War or earlier, it is not at all clear whether they should be counted among the Western industrial democracies for purposes of this analysis. Even if none of these countries were to be counted among the Western industrial democracies, however, the evidence still shows that the contribution made by the Western industrial democracies to ozone depletion and the threat of global climate change has been larger than that of any other culturally coherent group of countries.

35. *See* GARETH PORTER & JANET WELSH BROWN, GLOBAL ENVIRONMENTAL POLITICS 124-26 (1991).

36. WEISS, *supra* note 2, at 19.

37. *See* Lynn White, Jr., *The Historical Roots of Our Ecological Crisis*, 155 SCIENCE 1203 (1967).

for a new legal order that would institutionalize principles of intergenerational equity as far as environmental matters are concerned.

Professor Weiss goes beyond biblical exegesis, however, to claim that the civil and common law traditions have embraced such a principle.[38] She notes that, in the civil law tradition, governments can restrict property rights in the name of the public good, with no requirement for paying compensation, and that in common law countries, state and local governments can rely on either the police power or the public trust doctrine to achieve similar results.[39] In making these observations, Professor Weiss invokes John Locke's dictum that limits each person's right of appropriation from the commons in light of the nature of the resource and the needs of other people.[40] Specifically, Locke wrote that, with regard to any resource that a person appropriates from the commons:

> It being by him removed from the common state nature hath placed it in, it hath by this *labour* something annexed to it, that excludes the common right of other men: for this *labour* being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, *at least where there is enough, and as good, left in common for others*.[41]

Professor Weiss's points about the power of governments in civil law and common law jurisdictions to restrict the exercise of property rights without compensating the property owner, at least insofar as those restrictions are not so severe as to amount in effect to a taking or expropriation of property, are well taken.[42] Her invocation of Locke's

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38. *See* WEISS, *supra* note 2, at 18-19.

39. *See id.* at 19.

40. *See id.*

41. JOHN LOCKE, THE SECOND TREATISE OF GOVERNMENT ¶ 27 (J.W. Gouch ed., 3d ed. Basil Blackwell, 1966) (1764) (some emphasis in original; some emphasis added).

42. *See, e.g.*, Toomer v. Witsell, 334 U.S. 385, 393-94 (1947) (subject to ordinary constitutional limitations, the police power includes the power to protect and regulate fisheries); National Audubon Soc'y v. Superior Court of Alpine County, 658 P.2d 709, 721-23 (Cal. 1983) (powers and duties of the state as administrator of the public trust); State *ex rel.* Sofeico v. Heffernan, 67 P.2d 240, 243-44 (N.M. 1936) (origin and implications of state power to regulate the taking of wild animals); Anthony v. Veatch, 220 P.2d 493, 498-99, 506, 509 (Or. 1950) (scope of the police power in fisheries context); *cf.* Nollan v. California Coastal Comm'n, 483 U.S. 825 (1986) (holding that a condition incorporated in a land use permit issued pursuant to the police power amounted to a taking of private property because the public purpose served by the condition was unrelated to the public purposes served by the permit requirement itself); Case 5/88, Wachauf v. Federal Republic of Germany, 1989 E.C.R. 2609, 2639-40 (relying on Case 44/79, Hauer v. Land Rheinland-Pfalz, 1979 E.C.R. 3727, [1979-81 Transfer Binder] Common Mkt. Rep. (CCH) ¶ 8629 (1979), *infra*, in holding that a European Economic Community (EEC) regulation would have violated fundamental rights of the EEC legal order if it had deprived a lessee of the fruits of his labor and investments in the leasehold, but that it did not violate those rights because it could be applied either so as to allow the lessee to retain some or all of those fruits or so as to provide compensation for depriving him of them); Case 44/79, Hauer v. Land

dictum, however, carries the argument a bit too far. Professor Weiss justifiably criticizes the incomplete implementation of some of the best known state-imposed environmental requirements. In particular, she criticizes the requirements for considering long-term environmental impacts in the environmental impact statement processes established by the United States National Environmental Policy Act and similar statutes.[43] In doing so, however, Professor Weiss highlights the fact that Locke's principle generally has not been implemented in relevant jurisdictions except in peripheral and insignificant ways. Had it been implemented more fully, those countries that have looked to Locke for philosophical inspiration likely would not have created most of the environmental problems which burden them today.

In sum, the argument that principles of intergenerational equity in environmental matters can be justified theoretically by an appeal to the ideological content of deeply-rooted Western religious or legal traditions is shaky at best. Be that as it may, the evidence suggests that empirical conditions may exert a much stronger influence than ideological ones on the prospects for a new legal order that would institutionalize such principles. Many of these problems—ranging from the collapse of marine fisheries to global climate change—seem to be a consequence of the tragedy of the commons.[44]

The tragedy of the commons first was described as such in 1968 by biologist Garrett Hardin.[45] Hardin illustrated the tragedy by describing a common pasture to which all herdsmen have free access.[46] The rational herdsman will seek to maximize his gain and, in doing so, will ask himself whether it would be to his own benefit to add one more animal to his herd.[47] His answer will always be "yes" because of the disparate way in which the costs and the benefits of the additional animal will be

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Rheinland-Pfalz, 1979 E.C.R. 3727, 3745-49 [1979-81 Transfer Binder] Common Mkt. Rep. (CCH) ¶ 8629 (1979) (relying in part on the fact that the constitutional rules and practices of the member states of the EEC permit the legislature to restrict the use of private property in accordance with the general interest in holding that an EEC regulation restricting the new planting of grape vines did not unduly limit the exercise of the right of property so as to infringe upon its very substance); ITALIAN CIV. CODE [C.c.] § 834 (requiring compensation for expropriation of private property in the public interest); Thomas Allen, *Commonwealth Constitutions and the Right Not to be Deprived of Property*, 42 INT'L & COMP. L.Q. 523, 542-46 (1993) (discussing the circumstances under which government restrictions on the exercise of property rights are treated by courts in British Commonwealth countries as a deprivation or acquisition of property).

43. *See* WEISS, *supra* note 2, at 132-33.

44. *See* David Feeny et al., *The Tragedy of the Commons: Twenty-Two Years Later*, 18 HUM. ECOLOGY 1, 6 (1990); ELINOR OSTROM, GOVERNING THE COMMONS 183 (1990).

45. *See* Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

46. *See id.* at 1244.

47. *See id.*

allocated.[48] The income from the eventual sale of the animal will accrue to its owner alone.[49] The impact on the grazing capacity of the pasture, however, will be shared by *all* the herdsmen.[50] The owner of the animal will bear only a fraction of this cost.[51] The outcome is tragic because this cost-benefit calculation yields the same result for every additional animal and for all the herdsmen.[52] In seeking to maximize his individual gain, each of the herdsmen will continue adding animals to his herd, until the pasture becomes so denuded from overgrazing that all the herdsmen are worse off.[53]

More than one observer has criticized Hardin's model for its failure to account for the numerous examples of common resources that have been managed successfully by communities of resource appropriators.[54] Elinor Ostrom has offered the most comprehensive critique.[55] In seeking to explain why Hardin's model is not universally applicable, she compiled a list of features shared by communities of appropriators that successfully have avoided the tragedy.[56] One of them is relevant here. Professor Ostrom observed that appropriators are more likely to adopt a low discount rate with respect to the exploitation of a common resource if no economic opportunities other than exploiting that resource are available to them, such that the appropriators believe that they and their children will have to depend on the resource for their livelihood.[57] This feature suggests that certain empirical conditions are likely to induce a present generation to manifest concern for the well-being of future generations—at least in the sense of placing a higher value on the benefits that a sustainably managed common resource will generate in the future—even if the present generation otherwise may not have been predisposed to do so.

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48. *See id.*
49. *See id.*
50. *See id.*
51. *See id.*
52. *See id.*
53. *See id.*
54. *See, e.g.*, Feeny et al., *supra* note 44, at 13.
55. *See* OSTROM, *supra* note 44.
56. *See id.* at 1-3, 206.
57. *See id.* A discount rate is arithmetically the same as an interest rate, but is used to reduce costs and benefits that will accrue in the future to their present value rather than to calculate the earnings that an investment made now will have generated by some future date. *See* EDITH STOKEY & RICHARD ZECKHAUSER, A PRIMER FOR POLICY ANALYSIS 161-62 (1978). The lower the discount rate applied to the future costs and benefits, the higher the present value of the net benefit that those costs and benefits embody, and the more desirable the future accrual of that net benefit is likely to be. *Cf. id.* at 164-65 (reporting the consequences of applying two different discount rates to a tidal power project).

The picture is even more complex, however. In reflecting on the likelihood that her proposal for achieving intergenerational equity in environmental matters will come to fruition, Professor Weiss ultimately finds herself asking the question: "Why should we care about future generations?," and answering it by resorting to "the realization that it is essential to the health and well-being of even the present generation to know that our species . . . will exist beyond our own lifetime."[58] An abstract and putative realization such as this is a very slender hook on which to hang a proposal as revolutionary as Professor Weiss's, especially given the fact that, barring global nuclear war, most of the environmental problems that the present generation creates today are not likely to lead to the extinction of our species before the present generation dies. Perhaps sensing this weakness, Professor Weiss also looks to ecocentrism, suggesting that we should respect the environment for its own sake, because "the human community is, in the end, only part of a much larger natural system."[59] Ecocentrism is even less likely to provide useful ideological support for her proposal, however, given that human history, especially Western history, has been virtually an exercise in anthropocentrism.[60]

A better answer to the question "Why should we care about future generations?" lies in a field with which most legal scholars are unfamiliar, but which is of enormous relevance here: biology.[61] Essentially,

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58. WEISS, *supra* note 2, at 165. Gary Supanich has offered an intergenerational alternative to Professor Weiss's proposal—albeit one in which the legally relevant generations are limited to those generations that are coexistent in time—that relies for its theoretical justification on a similar point, the proposition that "we must act on behalf of the interests of future generations because failure to do so damages our moral/psychological sense of belonging to an extended human community across time." Gary P. Supanich, *The Legal Basis of Intergenerational Responsibility: An Alternative View—The Sense of Intergenerational Identity*, *in* 3 YEARBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 94, 95, 99-101 (Günther Handl et al. eds., 1992); *cf. id.* at 97 ("present" generations as overlapping generations).

59. WEISS, *supra* note 2, at 23. Gary Supanich has made a similar argument. *See* Supanich, *supra* note 58, at 95, 103-05.

60. *See generally* MARSH, *supra* note 1, at 46, 280 n.250, 435-36; Aldo Leopold, *The Land Ethic*, *in* A SAND COUNTY ALMANAC 201 (reprint 1970) (1949).

61. Precedents exist within both the community of legal scholars and the community of biological scholars for the notion that the law either is or ought to be informed by the principles of science in general, and the principles of biology in particular. *See* RICHARD D. ALEXANDER, DARWINISM AND HUMAN AFFAIRS 233-48 (1979) (arguing that the law has a specific biological function); FREDERICK K. BEUTEL, EXPERIMENTAL JURISPRUDENCE AND THE SCIENSTATE 53, 84 (1975) (arguing that both legislatures and the courts should explicitly adopt the scientific method for the purpose of identifying the best way to achieve societal goals, which would be chosen by other means); OLIVER WENDELL HOLMES, *Law in Science and Science in Law*, *in* COLLECTED LEGAL PAPERS 210, 242 (1920) (arguing that science should be used to determine the relative worth of the societal goals that lead us to nourish or to neglect particular legal doctrines); OLIVER WENDELL HOLMES, *Learning and Science*, *in* COLLECTED LEGAL PAPERS 138, 139 (1920) (arguing that "[a]n ideal system of law should draw its postulates and its legislative justification

evolution has hard-wired our brains so that we have no choice but to care about future generations.[62] We necessarily care about them, albeit in a strictly circumscribed sense. The Darwinian model of evolution by natural selection, as modified by more modern notions based on Mendelian genetics, describes a world defined by competition among individuals for scarce resources in a hostile environment.[63] The Darwinian dynamic is often misconstrued as a struggle for mere existence, when it is really a struggle for reproductive success.[64] Individuals who produce the most offspring will contribute the greatest amount of genetic material to the next generation.[65] By virtue of their genetic inheritance, the offspring will be more likely to exhibit whatever traits enabled the parent to both survive to reproductive age and produce so many offspring.[66] These offspring will pass on the crucial genes to their own offspring, who will pass on the genes to their own offspring, and so forth, ensuring that the descendants of the original parent will comprise a larger and larger proportion of each successive generation.[67] The numerical predominance of a particular family line will continue to increase until one of two things happens: Either a reproductively more advantageous trait arises in some other family line as a result of spontaneous genetic mutation or a trait already exhibited by some other family line becomes reproductively more advantageous because of a

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from science"); Kingsley R. Browne, *Sex and Temperament in Modern Society: A Darwinian View of the Glass Ceiling and the Gender Gap*, 37 ARIZ. L. REV. 971 (1995) (arguing that the public policy and the law of sexual equality in the work place has not taken evolutionarily derived sex differences in behavioral tendencies sufficiently into account); Kingsley R. Browne, *Biology, Equality, and the Law: The Legal Significance of Biological Sex Differences*, 38 SW. L.J. 617 (1983) (arguing that public policy and the law ought to be informed by a recognition of biologically based sex differences in temperament and cognitive functioning).

62. *See generally* CHARLES DARWIN, THE ORIGIN OF SPECIES (J.W. Burrow ed., Penguin Books 1968) (1859); Gregor Mendel, *Experiments on Plant Hybrids*, *in* THE ORIGIN OF GENETICS 1 (Curt Stern & Eva R. Sherwood eds., Eva R. Sherwood Trans. 1966) (1865); *cf. generally* Richard A. Kerr, *Did Darwin Get It All Right?*, 267 SCIENCE 14221 (1995) (summarizing the results of recent empirical studies supporting punctuated equilibrium as an alternative to phyletic gradualism); Stephen Jay Gould & Niles Eldredge, *Punctuated Equilibrium Comes of Age*, NATURE, Nov. 1993, at 223 (reviewing the evidence for punctuated equilibrium as an alternative to phyletic gradualism); Niles Eldredge & Stephen Jay Gould, *Punctuated Equilibria: An Alternative to Phyletic Gradualism*, *in* MODELS IN PALEOBIOLOGY 82 (Thomas J.M. Schopf ed., 1972) (proposing punctuated equilibria as an alternative to phyletic gradualism). For a brief comparison of Darwin's and Mendel's conceptions of the nature and function of the units of inheritance, see ELOF AXEL CARLSON, THE GENE: A CRITICAL HISTORY 7, 19 (1966). For a discussion of the origin of the term "gene," see *id.* at 18-22.

63. *See* DARWIN, *supra* note 62, at 114-29; DOUGLAS J. FUTUYAMA, EVOLUTIONARY BIOLOGY 19-40 (2d ed. 1986).

64. *See* DARWIN, *supra* note 62, at 116-19; FUTUYAMA, *supra* note 63, at 21-24, 150.

65. *See* DARWIN, *supra* note 62, at 130-42; FUTUYAMA, *supra* note 63, at 150-52.

66. *See* DARWIN, *supra* note 62, at 130-42; FUTUYAMA, *supra* note 63, at 150-52.

67. *See* DARWIN, *supra* note 62, at 163; FUTUYAMA, *supra* note 63, at 150-52.

change in the environment.[68] In either case, the struggle for reproductive success will continue, even though the individuals in first one family line, and then another, will emerge as the temporary victors.[69]

In the Darwinian dynamic, the present generation "cares" about future generations in the sense that individuals are genetically predisposed to do whatever it takes to produce as many offspring as possible who are, in turn, genetically predisposed to do the same.[70] Although *individual* reproductive success is at the center of the struggle, the struggle need not be antisocial. An individual can maximize the amount of genetic material that he or she passes on to the next generation by focusing on his or her own offspring, by focusing on the offspring of close relatives, or by focusing on both.[71]

Honey bees offer an excellent example of a nonhuman society in which most individuals focus on offspring other than their own.[72] The honey bee hive is a vastly complex social arrangement whose primary purpose is to ensure the reproductive success of a single individual: the queen.[73] The worker bees, females that are capable of reproduction but almost never reproduce, participate in this social arrangement because of their close genetic relationship to the queen, who is their mother.[74] By devoting their lives to enhancing the reproductive success of the queen, the workers indirectly enhance their own reproductive success because they share a large proportion of the queen's genes.[75] The situation of the male bees—the drones—is more complex because each drone has a chance to enhance his own reproductive success directly by mating with the queen.[76] Indirect routes to reproductive success also play a role in the drones' lives, however, because they are almost always the brothers of the workers and the sons of the queen.[77]

Significantly, the honey bee hive is not the product of conscious choice-making on the part of the bees.[78] They participate as a result of

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68. *See* DARWIN, *supra* note 62, at 163, 323; FUTUYAMA, *supra* note 63, at 75-76, 155-57, 172, 423-24.

69. *See* DARWIN, *supra* note 62, at 165-66, 323-24; FUTUYAMA, *supra* note 63, at 359-60.

70. *See supra* text accompanying notes 63-69.

71. *See* FUTUYAMA, *supra* note 63, at 261-63; W.D. Hamilton, *The Genetical Evolution of Social Behavior I*, 7 J. THEORETICAL BIOLOGY 1 (1964); W.D. Hamilton, *The Genetical Evolution of Social Behavior II*, 7 J. THEORETICAL BIOLOGY 17 (1964) [hereinafter Hamilton II].

72. *See* THOMAS D. SEELEY, THE WISDOM OF THE HIVE 7-16 (1995); *see also* Hamilton II, *supra* note 71, at 28-32 (discussing the social tendencies of the Hymenoptera).

73. *See* SEELEY, *supra* note 72, at 9, 13.

74. *See id.* at 9.

75. *See id.* at 7-13.

76. *See id.* at 11, 14.

77. *See id.* at 9, 11, 14.

78. *See id.* at 3-21.

instinct alone. Evolution has hard-wired their nervous systems to make them participate in a social arrangement that has proven itself to be reproductively advantageous in light of the relevant environmental conditions.[79]

How these biological principles play themselves out in human society is vastly more complex because humans have invented culture. Culture can be conceptualized as an accretion of conscious choices that members of past and present generations have made about the desirability of perpetuating particular living arrangements. Nevertheless, culture tends to re-enforce biology.[80]

Many common cultural practices can be explained by reference to a genetic predisposition to do whatever is necessary to enhance one's own reproductive success. Nepotism, for example, can be explained on this basis.[81] Western intestacy statutes are another example of a cultural practice, this time codified as law, that can be explained in this way.[82] Even socialization to patriotism, by at least one account, can be explained on similar grounds.[83]

Thus, the question we should be asking is not: "Why should we care about future generations?" We necessarily care about them because our brains are hard-wired in a way that ensures that we do. The question we should be asking is: "How does our concern typically manifest itself?" The best answer is again rooted in biology, and can be corroborated by common sense observation. Our concern for individuals in future generations tends to vary in proportion to the degree to which we perceive those individuals to be genetically related to us. Thus, we tend to care more about our own offspring than about the offspring of our siblings. We tend to care more about the offspring of our siblings than about the offspring of our distant cousins, and so on. We tend to care least about the offspring of people who seem to be the most distantly related to

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79. *See id.* at 7-16.

80. *Cf.* ALEXANDER, *supra* note 61, at 68 (describing culture as representing the cumulative effects of behavior by all humans that have ever lived that have maximized individual reproductive success "with an inertia refractory to the wishes of individuals").

81. *See id.* at 103-12, 121.

82. *Cf. id.* at 238 (arguing that the author's analysis of the function of law underscores the biologist's view that the lives of organisms are divided into resource gathering activities and resource distribution activities, and that this view in turn provides a new perspective on the basis for inheritance laws). In most cases, intestacy statutes apportion the decedent's estate in ways that reflect the closeness of genetic relationships. The statutes' frequent preference for spouses, who are not genetically related to the deceased, can be accounted for by the recognition that the decedent's spouse is usually the person responsible for caring for the decedent's minor children, who are genetically related to them both. *See, e.g.*, MASS. GEN. L. ch. 190, §§ 1-8 (1995); N.Y. EST. POWERS & TRUSTS LAW §§ 4-1.1 to 4-1.2 (McKinney 1981 & Supp. 1997).

83. *See* Gary R. Johnson, *Kin Selection, Socialization, and Patriotism: An Integrating Theory*, 4 POLITICS AND THE LIFE SCIENCES 127 (1986).

us. To a greater or lesser degree, the offspring of people of races, ethnic groups, or territorial jurisdictions different from our own tend to fall into this category.[84]

Given the categories into which she divides human groups, the variable nature of our concern for future generations has some interesting implications for Professor Weiss's proposal. She erects two principal distinctions—one between the present generation and future generations, and one between nationals of different states.[85] In effect, these distinctions create four groups of people: (1) present generation nationals of State A; (2) future generation nationals of State A; (3) present generation nationals of State B (State B being used herein as a common designation for any state other than State A); and (4) future generation nationals of State B. We can add another distinction to this array: A boundary between the elite—defined for our purposes as the political elite—and the masses within each generation, within each state.[86]

As a practical matter, it is the present generation elite of State A who will decide whether State A will participate in a global regimen intended to achieve intergenerational equity in environmental matters. In accordance with our biological model of concern for future generations, the members of this elite are likely to be most concerned about the future generation elite of State A. This dynamic arises because the members of the present and future generation elites of State A are likely to be more closely related to each other than to the members of any other group. Political elites often share a large proportion of their genes.[87] This genetic link is easily visible in many primitive political systems, where the ruling elite is comprised of a single extended family or group of closely related families.[88] Political power in more complex political systems may be similarly concentrated.[89] The dynasties of pre-World War I Europe and of modern Saudi Arabia are striking examples of the degree to which consanguinity can define a political elite.[90] Even in political systems that are too complex for elites to be readily conscious of their own genetic relationships—modern liberal democracies, for example—discernable

84. *Cf. id.* at 128-29, 133, 135-37 (comparing kin selection, racial discrimination, ethnic discrimination, and socialization to patriotism).

85. WEISS, *supra* note 2, at 2-3, 26. Professor Brown Weiss also distinguishes among future generations, which is of little analytical importance here. *See, e.g.*, *id.* at 24.

86. *See* ROBERT D. PUTNAM, THE COMPARATIVE STUDY OF POLITICAL ELITES 9, 163 (1976).

87. *See id.* at 61.

88. *See id.*

89. *See id.*

90. *See* MARLENE A. EILERS, QUEEN VICTORIA'S DESCENDANTS 7 (1987); *see also* SANDRA MACKEY, THE SAUDIS 190-216 (1987).

genetic links among their members may be present nonetheless.[91] Individuals who move within the same socioeconomic, political, or other strata of society are more likely to meet and breed with each other than with individuals confined to other strata.[92]

The closeness of the genetic relationship among members of the elite is likely to vary in accordance with the nature and formidability of the barriers to elite membership. As political scientist Robert Putnam has observed, political elites recruit new members through the use of "selectorates," guardians who winnow out candidates at each stage along the road to elite membership.[93] These selectorates eliminate candidates through the application of rules, which may include socioeconomic, educational, ethnic, familial, or other measurable criteria.[94] Some criteria are more likely than others to produce a high degree of consanguinity within the elite. Familial and ethnic criteria are near the top of the list. Socioeconomic and educational criteria are located further down, but may produce considerable consanguinity among elite members, especially if they are very exclusive. Ivy League graduates are more likely to be related to other Ivy League graduates, for example, than to people who never received a high school degree.[95]

Beyond the future generation elite of State A, the present generation elite of State A is likely to be most concerned about the future generation masses of State A. In modern nation states—especially modern industrial democracies—the intranational boundary between masses and elite is rarely impermeable. In any event, this boundary is likely to be more permeable for breeding purposes than the political, cultural, linguistic, religious, and other international boundaries that exist between states.[96] Therefore, except perhaps in some highly integrated international contexts—such as the European Union or the international community of international relations professionals—it is more likely that the present generation elite of State A would be more closely related to the future generation masses of State A than to the future generation masses or elite of State B.

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91. *See* PUTNAM, *supra* note 86, at 61.

92. *Cf. id.* at 113 (observing that common social and educational backgrounds help to generate and shape bonds of communications and friendships within elites).

93. *See id.* at 39.

94. *See id.* at 39, 59-65.

95. *Cf. id.* at 28-29 (noting the link between social status and access to education in many countries).

96. *See id.* at 38-39 (discussing the role of upper status social groups in the elite). *But cf. id.* at 163 (noting that the disparity in socialization between masses and elite in less developed countries tends to be much greater than in developed countries, resulting in distinct political cultures).

The present generation elite of State A is least likely to be concerned about the future generation nationals of State B. There may be some reason to believe that the elite of State A would care more about the elite of State B than about the masses of State B, on the theory that the members of present generation elites of different states are more likely to meet and breed with each other than with the masses of the other state. We need not explore this argument too deeply, however, for it is peripheral to this analysis.

Once again we find ourselves asking the most important question left unanswered by Professor Weiss's proposal: On what theory are we most likely to be able to conclude that the peoples of the world would abandon the current legal order in favor of a new one that would achieve intergenerational equity in environmental matters? The best answer is: On the theory that we are biologically and culturally predisposed to care about future generations, albeit in a carefully circumscribed way. First, we are predisposed to care *as* individuals *about* individuals. Second, our concern tends to vary in accordance with how closely we perceive the individual of concern to be related to us. The fact that our concern tends to vary in this way suggests that a new legal order based on that concern and intended to achieve intergenerational equity may be different from the one proposed by Professor Weiss.

IV. CHARACTERISTICS OF A NEW LEGAL ORDER

A. Introduction

Professor Weiss's proposal incorporates three types of rights and duties:

(1) intergenerational group rights and duties;
(2) *intra*generational group rights and duties; and
(3) *intra*generational *individual* rights and duties.[97]

Professor Weiss's notions about the intergenerational and intragenerational *group* rights and duties are a bit more revolutionary than even she seems willing to admit. Professor Weiss relies on the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and several other human rights and other documents to support her contention that the notion of group rights among generations and among peoples within the same generation are deeply rooted in international law.[98] These documents provide considerably less support

97. *See* WEISS, *supra* note 2, at 45, 96-99.
98. *See id.* at 25-26, 114.

than she supposes, and underscore one of the most problematic aspects of her proposal.

In accordance with the age-old dictum that states, and not individuals, are the subjects of international law, the international community paid very little attention to its citizens' rights until after World War I when the League of Nations adopted the rights of ethnic and other minorities as a primary concern.[99] After World War II, the world community began to focus on "human rights," a universalization of the natural rights concept that had defined political relationships within liberal societies since the late eighteenth century.[100] In 1948, the United Nations General Assembly adopted the Universal Declaration of Human Rights,[101] which has become the standard by which the human rights performance of its members is judged.[102] The Universal Declaration is based on an eighteenth century conception of human rights.[103] Its authors were heavily influenced by both the American Declaration of Independence and the French Declaration of the Rights of Man and the Citizen, especially the latter.[104] For the most part, the authors of these eighteenth century declarations conceived of human rights as *individual* rights, not group rights.[105] In this and other respects, the authors of the Universal Declaration adopted the eighteenth century conception.[106]

The major human rights conventions took their ideological cues from the Universal Declaration.[107] More specifically, they overwhelmingly reaffirm the notion of human rights as *individual* rights.[108] Group rights

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99. *See* John P. Humphrey, *The International Law of Human Rights in the Middle Twentieth Century*, *in* THE PRESENT STATE OF INTERNATIONAL LAW AND OTHER ESSAYS 75, 75-77 (Prof. Dr. Maarten Bos ed., 1973); *see also* WILL KYMLICKA, LIBERALISM, COMMUNITY AND CULTURE 210 (1989).

100. *See* KYMLICKA, *supra* note 99, at 210.

101. G.A. Res. 217 A (III), U.N. Doc. A/810 (1948).

102. *See* Johannes Morsink, *The Philosophy of the Universal Declaration*, 6 HUM. RTS. Q. 309 (1984); *see also* MOSES MOSKOWITZ, INTERNATIONAL CONCERN WITH HUMAN RIGHTS 160 (1974).

103. *See* Morsink, *supra* note 102, at 310-11.

104. *See id.*

105. The language in the American Declaration of Independence that asserts the right of the colonists to collectively separate themselves from the British Empire is an apparent exception to this rule. THE DECLARATION OF INDEPENDENCE paras. 1-2, 32 (U.S. 1776). The text of the American Declaration strongly suggests that the signers believed that this group right was derived from the colonists' individual rights, however. The colonists' right to form an independent government became vested in them as a result of King George III's alleged abuses of their individual rights. *See id.* para. 2.

106. *See* Morsink, *supra* note 102, at 333.

107. *See* MOSKOWITZ, *supra* note 102, at 160.

108. *See* African [Banjul] Charter on Human and Peoples' Rights, *adopted* June 27, 1981, 21 I.L.M. 58, Organization of African Unity [OAU] Doc. CAB/LEG/67/3 Rev. 5 (1981); American Convention on Human Rights, Nov. 22, 1969, Organization of American States [OAS] T.S. No. 36, at 1, OAS Off. Rec. OEA/Ser. L/V/II.23 doc. rev. 2; *International Covenant on Civil*

do make an occasional appearance in these conventions, usually in the form of the right of peoples to self-determination or of their right to "freely dispose of their natural wealth and resources."[109] Of all the human rights conventions, the African [Banjul] Charter on Human and Peoples' Rights places the most emphasis on group rights by far.[110] It includes a long list of "peoples' rights," including a people's right to "a general satisfactory environment favourable to their development."[111] Paradoxically, the peoples' rights portions of the African Charter merely underscore the problematic nature of Professor Weiss's proposal. It is the Western industrial democracies that will have to endorse any proposal for a new legal order that would institutionalize principles of intergenerational equity in environmental matters if such a proposal is to be implemented in any meaningful way. The signatories to the African Charter are as culturally and legally distant from the Western industrial democracies as any group of countries in the world, and probably more so than most countries. The emphasis on group rights in the African Charter reflects that fact and smacks of an attempt to graft Western-imposed notions of individual rights onto peculiarly African communitarian legal traditions.[112]

For all these reasons, the human rights concepts codified in international law are of limited precedential value when it comes to the group rights portion of Professor Weiss's proposal. Let us take a closer look at her notions about intergenerational group rights and duties.

B. Intergenerational Group Rights and Duties

Professor Weiss envisions a system of reciprocal rights and duties spanning the generations.[113] Future generations would have a right to demand that the present generation use the Earth sustainably.[114] The present generation would, in turn, have a duty to all future generations to use the Earth only in that way.[115] Professor Weiss suggests, without ever dwelling on the matter, that these rights and duties would arise out of a

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and Political Rights, *adopted* Dec. 19, 1966, 1966 U.N.Y.B. 423, U.N. Doc. A/6316 (1966); *International Covenant on Economic, Social and Cultural Rights*, *adopted* Dec. 19, 1966, 1966 U.N.Y.B. 419, U.N. Doc. A/6316 (1966); [European] Convention for the Protection of Human Rights and Fundamental Freedoms, Nov. 4, 1950, 213 U.N.T.S. 222.

109. *International Covenant on Civil and Political Rights*, *supra* note 108, art. 1, ¶¶ 1, 2; *see International Covenant on Economic, Social and Cultural Rights*, *supra* note 108, ¶¶ 1, 2.

110. African [Banjul] Charter on Human and Peoples' Rights, *adopted* June 27, 1981, arts. 19-24, OAU Doc. CAB/LEG/67/3 Rev. 5 (1981).

111. *Id.* (quoted material appears in art. 24).

112. *See* WEISS, *supra* note 2, at 20.

113. *See id.* at 45, 47-49, 95-103.

114. *See id.* at 17, 21, 24-25, 47, 95.

115. *See id.*

contract between generations.[116] Contract theory would be one obvious source of theoretical justification for such an arrangement. Further reflection suggests, however, that the intergenerational rights and duties in Professor Weiss's proposal would not be based on a contract in a traditional Western sense, either for lack of consideration or for lack of competency on the part of one of the contracting parties.[117]

Two major scenarios are possible. In the first scenario, the present generation would make a contract with each future generation for that future generation's own benefit. The present generation would promise to use the Earth sustainably. The future generation would merely promise to receive the benefit of the present generation's promise. The promise of the future generation would not constitute consideration, and a contract would not have been formed.[118] In the second scenario, the present generation would also make a contract with each future generation, but this time for the benefit of one or more of the future generations. The present generation would promise the future generation to use the Earth sustainably in exchange for the promise of the future generation to do the same. Both contracting parties would make this promise for the benefit of one or more generations who were not contracting parties. Both parties would have furnished consideration, and a contract would have been formed.[119] The one or more future generations that were not parties to the contract would stand as intended third party beneficiaries.[120]

The second scenario, however, is not problem free. Future generations legitimately may be presumed incapable of being a party to a contract, because the act of classifying a generation as a "future" generation implies that its members have not yet been born. At the very least, it implies that they have not yet reached the age of majority.[121] This common sense view provides strong support for the argument that future generations would be incapable of forming a meaningful contract in the traditional Western sense.

A contract among the members of the present generation would provide a much stronger theoretical foundation for a new legal order intended to achieve international equity in environmental matters. Each member of the present generation has an interest in ensuring that all of the other members of the present generation use the Earth only on a sustainable basis. Only if all members of the present generation use the

116. *See id.*
117. *See* RESTATEMENT (SECOND) OF CONTRACTS §§ 12, 71, 75 (1981).
118. *See id.* §§ 71, 75.
119. *See id.*
120. *See id.* § 302(1).
121. *See id.* §§ 9, 12; *cf. id.* § 14 (discussing the ability of infants to enter into contracts).

Earth in such a way can any of them be sure that his or her descendants will have an appropriate amount of natural and cultural resources. This interest could be vindicated contractually. Each member of the present generation could promise all of the other members of the present generation to use the Earth sustainably in return for their promises to do the same. The members of future generations would stand as intended third party beneficiaries to the contract.

This attempt to make Professor Weiss's proposal more consistent with traditional Western notions of contract theory would transform her *inter*generational rights and duties into *intra*generational rights and duties. It would also do something else. It would transform her *group* rights and duties into *individual* rights and duties, which are more consistent with Western rights traditions. Professor Weiss's intragenerational rights and duties thus become an issue.

C. Intragenerational Rights and Duties

Professor Weiss seems to make a point of emphasizing the rights of less developed countries and the duties of developed countries to them.[122] In the first instance, these rights and duties attach to groups.[123] To be sure, Professor Weiss's conception of these group rights and duties satisfies the traditional Western contract requirements of consideration and competency.[124] Developed countries would promise less developed countries to use the Earth sustainably in exchange for the less developed countries' promises to do the same. Developed countries also might promise to give less developed countries aid in exchange for the less developed countries' promises to use the aid for the purpose of using the Earth sustainably. In any event, the requirement for a mutual exchange of consideration would be satisfied.[125]

What is missing from Professor Weiss's account, however, is an appropriate emphasis on *jural community*, at least as that term was conceived originally. The term "jural community" was originally conceived as a description of the widest grouping within certain indigenous African societies that was characterized by a mechanism for ultimately resolving disputes peaceably and a moral obligation to use the mechanism.[126] As this conception suggests, membership in a jural

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122. *See* WEISS, *supra* note 2, at 27-28.

123. *See id.* at 44-45.

124. *See* RESTATEMENT (SECOND) OF CONTRACTS §§ 9, 12, 14, 71, 75 (1981).

125. *See id.* §§ 71, 75.

126. *See* John Middleton & David Tait, *Introduction to* TRIBES WITHOUT RULERS 1, 9 (1958). Although these societies lacked a centralized political authority, and were characterized instead by political systems that were based on a network of family lineages, *see id.* at 1, 3-4, 6-8,

community implies a measure of security for the weak or otherwise vulnerable because force is not among the legitimate means available to community members for ultimately resolving disputes between them.[127]

According to this original conception, most stable nation states clearly qualify as jural communities.[128] The society of nations, on the other hand, does not qualify as a jural community because armed force remains available to nation states as a legitimate means for ultimately resolving disputes between them.[129] As we have noted, the present generation nationals of State A are not especially concerned about the well being of the present or future generation nationals of State B. On the other hand, they *are* concerned about the well-being of the future generation nationals of State A. In order to achieve intergenerational equity in environmental matters, the present generation nationals of State A could collectively contract with the present generation nationals of State B, each group promising to use the Earth sustainably in exchange for the other group's promise to do the same. The requirement for a mutual exchange of consideration would be satisfied, and the future

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the procedural norms that the jural communities within these societies embodied, call to mind the contract by which John Locke believed human beings transcended the state of nature and established the centralized political authority of civil society. *Cf.* JOHN LOCKE, SECOND TREATISE OF GOVERNMENT ¶¶ 95-99, 127, 134, 144 (C.B. MacPherson ed., 6th ed. 1980) (1764). The purpose of this contract was to allow human beings to escape the defects inherent in the state of nature, including the personal insecurity that arose out of the lack of a known and settled law consented to by all people to serve as the common standard by which disputes between them were to be resolved. *See id.* ¶¶ 123-24.

The term "jural community" also has been used to refer to an arena in which all of the actors recognize that a common dispute resolution mechanism exists, without regard to whether or not that mechanism is peaceable and without regard to whether or not a moral obligation to use it exists. *See* MICHAEL BARKUN, LAW WITHOUT SANCTIONS 71 (1968); *see also id.* at 72-73, 127 (asserting that a jural community "connotes a consensus on conflict-management procedures" and is similar to what contemporary political scientists call a "political community," and that a jural community is "the area within which an all-inclusive organizing idiom is used, be it lineage, sovereignty, or something else," such that in political systems based on a network of family lineages the jural community is the largest human grouping in which everyone shares approximately the same conception of the network).

127. Although feuds were characteristic of some of the jural communities to which the term "jural community" originally was applied, these feuds were among the disputes for which the members of the jural community recognized the existence of mechanisms to ultimately resolve disputes peaceably and a moral obligation to use them. *See* Middleton & Tait, *supra* note 126, at 1, 20-21; *see also id.* at 22 (listing some of the mechanisms).

128. Although some nation states might fail to qualify as jural communities in this sense—because they lack a mechanism for ultimately resolving disputes peaceably and a moral obligation to use the mechanism—such nation states need not concern us unduly. There is little reason to expect that any such nation state either could or would play a constructive role in an international legal regimen intended to achieve intergenerational equity in environmental matters.

129. *Cf.* KENNETH N. WALTZ, THEORY OF INTERNATIONAL POLITICS 112-14 (1979) (describing the role played by war in international relations and comparing the international system with domestic political systems).

generation nationals of both states would stand as intended third party beneficiaries to the contract. Unfortunately, a contract of this sort would require the nationals of each state to step outside of their own jural community and into the international arena in order to enforce the contract.

Although some peaceable dispute resolution mechanisms exist in the international arena, armed force remains available to nation states as a legitimate means for ultimately resolving disputes between them, which in turn implies a measure of insecurity for countries that are weak or otherwise vulnerable such that they could not enforce the contract against other countries that were in material breach of the contract terms.

Ironically, either developed countries or less developed countries could be considered weak or otherwise vulnerable such that they could not enforce the contract against countries of the other group, depending on the circumstances. Less developed countries could be considered weak or otherwise vulnerable such that they could not enforce the contract against developed countries by virtue of the latter's superior economic, technological, and military might. On the other hand, developed countries could be considered weak or otherwise vulnerable such that they could not enforce the contract against less developed countries as a result of the practical difficulties that such an enforcement attempt could entail. Even an activity as simple as burning wood fuel for cooking purposes, for example, when undertaken by exploding populations in the less developed world, could amount to a material breach of the contract by making it impossible to limit global atmospheric concentrations of CO_2 to levels sufficient to control global climate change. Although developed countries could resort to armed force in an attempt to coerce these populations into refraining from cooking their meals using the fuel available to them, the practical obstacles to successfully controlling the efforts of dispersed populations to satisfy basic human needs in this manner are manifest, as is the likelihood that less developed countries would take advantage of any means at their disposal, including chemical, biological, or nuclear weapons, or state-sponsored terrorist attacks, to defend themselves against the gross infringement of their national sovereignty that any attempt to overcome these practical obstacles likely would entail. In any case, the power of the developed countries to enforce the contract at an acceptable cost in such circumstances would seem to be more apparent than real. From the perspective of nearly any country, the most attractive legal order would be one that did not require the nationals of that country to step outside of their own jural community in order to enforce a contract intended to

achieve their shared intergenerational goals because of the risk that an unenforceable material breach of such a contract would occur.[130]

A contract made by the present generation nationals of each country among themselves for the benefit of their country's future generation nationals would satisfy this criterion. In such a contract, each present generation national of State A would promise each of the other present generation nationals of State A to use the Earth sustainably, and to do whatever else was necessary to achieve the intergenerational goals of both of them. The second half of this promise would require the present generation nationals of State A to give aid to the present generation nationals of State B to the extent needed to ensure that State B nationals could use the Earth sustainably. Without this aid, the efforts of State A nationals to achieve their own intergenerational goals would be threatened.[131]

Such a contract would also satisfy the requirement for a mutual exchange of consideration. The future generation nationals of State A would stand as intended third-party beneficiaries to the contract. The present and future generation nationals of State B would stand as incidental third party beneficiaries to the contract. Such a contract would be entirely consistent with the international goals that Professor Weiss seeks to achieve.

It is interesting to note in this connection the 1993 opinion of the Supreme Court of the Philippines, *Minors Oposa v. Secretary of the Department of Environment and Natural Resources*.[132] *Minors Oposa* is perhaps the first environmental decision to be based squarely on principles of intergenerational equity. In that case, the court held that the minor Filipino plaintiffs had standing to sue on behalf of themselves, the other members of their generation, and the members of generations not yet born, to stop the logging of rain forests in the Philippines.[133] According to the court, the minor plaintiffs derived their right to sue as representatives of future generations from "the concept of

130. One also could make the argument that a legal order that did not require the nationals of any country to step outside of their own jural community in order to enforce such a contract would be preferable to one that required them to do so because of the presence within most stable nation states of a sovereign capable of enforcing the terms of the contract. To make such an argument, however, would likely open a Pandora's box of thorny issues regarding the relative effectiveness of domestic and international law and the mechanisms for enforcing it.

131. This second half of the promise would assume the observance of basic human rights. For example, the promise would not authorize or obligate the contracting parties to kill all of the present generation nationals of State B of one sex or the other in order to ensure that no future generation nationals of State B would be born.

132. 33 I.L.M. 173 (1994).

133. *See id.* at 185.

intergenerational responsibility insofar as the right to a balanced and healthful ecology is concerned."[134] The court went on to observe that:

> [n]eedless to say, every generation has a responsibility to the next to preserve that rhythm and harmony [of nature] for the full enjoyment of a balanced and healthful ecology. Put a little differently, the [plaintiff] minors' assertion of their right to a sound environment constitutes, at the same time, the performance of their obligation to ensure the protection of that right for the generations to come.[135]

What is most significant about *Minors Oposa* for our purposes is that it was decided by a national court under national law on principles of intergenerational equity for future generation nationals *of that nation-state*.[136]

Placing an appropriate emphasis on jural community in the new legal order would have other beneficial implications. As Professor Weiss points out, a new legal order that would institutionalize principles of intergenerational equity in environmental matters is not likely to become a reality unless the entire world community participates.[137] Less developed countries, which often find themselves struggling just to meet the basic short term human needs of their populations, are unlikely to be

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134. *Id.*

135. *Id.* American courts have been much more circumspect. *See* Allen, *supra* note 1, at 713, 723-29, 734-35; *cf.* Just, *supra* note 1, at 597, 615-17, 621-28. The United States District Court for the District of New Jersey has perhaps come closer than any other American court to basing a decision in an environmental case squarely on principles of intergenerational equity. In *Cape May County Chapter, Inc., Izaak Walton League of America v. Macchia*, 329 F. Supp. 504 (D.N.J. 1971), the court held in a case brought under several federal environmental statutes that an environmental group had standing to sue not only in its own right, but also as the representative of a class of other persons, including persons not yet born, under Federal Rule of Civil Procedure 23(b)(2). *Id.* at 514. In so doing, the court observed that the environmental group, its members, and the members of the class of persons that the environmental group claimed to represent—including those persons not yet born—all had "special beneficial interests" that fell within the "zone of interests" that the statutes sought to protect. *Id.* at 516. In 1992, however, the United States Supreme Court held that the plaintiffs in a federal Endangered Species Act case failed to satisfy the "injury in fact" prong of the Article III standing requirement in that they had no current plans to return to the places where the species in question lived, and therefore had failed to show that injury was "imminent." Lujan v. Defenders of Wildlife, 504 U.S. 555, 562-64, 579 (1992) (Scalia, J., for a plurality, and Kennedy & Souter, JJ., concurring). This cramped interpretation of the Article III standing requirement leaves the ability of plaintiffs to sue as representatives of future generations in federal environmental cases in considerable doubt. *See* Allen, *supra* note 1, at 734-35; *cf.* Just, *supra* note 1, at 625-26 (proposing American courts ought to recognize intergenerational standing in federal Endangered Species Act cases in order to alleviate the pernicious effects of the United States Supreme Court's interpretation in *Lujan* of the "injury in fact" prong of the Article III standing requirement).

136. *See Minors Oposa*, 33 I.L.M. at 200 (Feliciano, J., concurring); *cf. id.* at 184 (ruling that the suit is a class action because its subject matter is of interest to all citizens of the Philippines, who are so numerous as to make it impracticable, if not impossible, to bring them all before the court).

137. *See* WEISS, *supra* note 2, at 161.

able to participate in such a legal order without significant foreign aid.[138] If State A were a developed country, then the promises that the present generation nationals of State A would give to each other in their *intra*national contract likely would require them to provide the necessary aid for the benefit of their own future generation nationals. The present and future generation nationals of less developed countries would stand as incidental third party beneficiaries to the contract. If State B were a less developed country, then the promises that the present generation nationals of State B would give to each other in their *intra*national contract likely would require them to accept that aid for the benefit of their own future generation nationals. In that case, the present generation nationals of State A would stand as incidental third party beneficiaries to the contract.

As this explanation suggests, not only would all the rights and duties in the new legal order be *intra*national and *intra*generational, they also would be attached to individuals only. It is here that the distinction between the elite and the masses within any given country becomes analytically important. In some countries, especially in the less developed world, the masses stand in the same relation to the elite, as far as their ability to use the Earth sustainably is concerned, as the less developed countries stand to developed countries. The masses in these countries are too poor to be able to use the Earth sustainably without outside help.[139] This fact gives rise to at least three major questions:

(1) Do the masses have an intranational right to demand aid from the elite?
(2) Does the elite have a duty to give it?
(3) If such rights and duties exist, can they be attached to individuals, or must they be group-based?

The best answer to these questions varies depending on whether the elite constitutes a single jural community.

Within any society that itself constitutes a jural community, there may be additional, smaller jural communities, whose members share among themselves behavioral norms in addition to those that they share with the rest of society.[140] On this basis, an elite itself may constitute a jural community. Suppose that State A is a rigidly authoritarian state such that the elite constitutes a distinct jural community with a monopoly on political decision-making. In that case, the members of the elite could achieve their intergenerational goals by promising each other to use the Earth sustainably, and to do whatever else was necessary to ensure that

138. *See id.* at 27-28.
139. *Cf.* WEISS, *supra* note 2, at 162-63.
140. *See* Middleton & Tait, *supra* note 126, at 1, 9; *see also* BARKUN, *supra* note 126, at 67 (restating Middleton's and Tait's original conception of the jural community).

those goals would be achieved. The second half of this promise would oblige the members of the elite to provide aid to the masses as necessary to achieve those same goals. The masses would stand as incidental third party beneficiaries to the contract.

Alternatively, suppose that State A is thoroughly democratic. The masses participate extensively in politics, and elite decisions are thoroughly responsive to that participation. In that case, the members of the elite probably could not achieve their intergenerational goals without the active collaboration of the masses. Accordingly, the citizens of the nation as a whole would contract with each other, each promising all the others to use the Earth sustainably in exchange for the others' promises to do the same. In addition, each member of the elite would promise each member of the masses to provide any necessary aid in exchange for the latter's promise to use that aid for the purpose of using the Earth sustainably.

As this analysis demonstrates, intergenerational equity in environmental matters could be achieved without resorting to group rights or duties of any kind. A new legal order that would institutionalize principles of intergenerational equity could be established without stepping outside of the individual rights tradition of the West. The Western industrial democracies, whose support is essential if intergenerational equity in environmental matters is to be achieved, would be much more likely to endorse a new legal order based on individual rights and duties than one based on group rights and duties. That being said, one aspect of the group rights component of Professor Weiss's proposal still warrants further examination.

Professor Weiss considers the number of people in each generation to be irrelevant to the intergenerational group rights incorporated in her proposal.[141] Such is not the case, however. According to Professor Weiss, every generation should have a right to inherit the Earth in a condition comparable to that enjoyed by previous generations.[142] It is true that the number of people in the inheriting generation is irrelevant to this particular right, but the problem is more complex than that. The complexity arises because: (1) every generation also has a duty to pass on the Earth to the next generation in as good a condition as it was in when that generation first received it and (2) the number of people in any generation is determined by the previous generation. All other factors being equal, the more people comprising an inheriting generation, the more difficult it would be for that generation to fulfill its own duty to

141. *See* WEISS, *supra* note 2, at 96.
142. *See id.* at 38; *see also id.* at 97.

future generations. This duty—to pass on the Earth in as good a condition it was when the inheriting generation first received it—would become more difficult to fulfill because of the greater demand that the increased size of the inheriting generation would place on the Earth's resources. Every generation thus has the power to make the next generation's duties to more remote generations either much harder or much easier to fulfill. Making those duties harder to fulfill would seem inequitable on its face.

In order to prevent this inequity from arising, Professor Weiss's proposal would have to incorporate a duty incumbent on every parental generation not to produce a filial generation significantly more numerous than itself, and a corresponding right of every filial generation to have its parental generation behave in this way. In keeping with other relevant aspects of Professor Weiss's proposal, these intergenerational rights and duties likely also would be inter*national* rights and duties that attached to the members of each generation as a group. In a new legal order based on intranational, individual rights and duties only, however, the analogous rights and duties would take a predictably different form. After all, the present generation nationals of State A could ensure that each of their immediate descendants would inherit a given amount of resources in either or both of two ways. They could promise each other to limit their own use of the Earth's resources, or to have fewer children, or to do both. In any event, they could achieve their shared intergenerational goals by means of *intra*national, *intra*generational, *individual* rights and duties only.

V. CONCLUSION

Professor Weiss's proposal likely will seem innovative to some, but radical to many. It embraces many ideas that even Professor Weiss acknowledges the world community as a whole is not yet ready to accept.[143] This state of affairs is certainly true in the Western world, whose support will be essential if intergenerational equity in environmental matters is to be achieved. Group rights and duties, which are the most important part of Professor Weiss's proposal, have very little in common with Western cultural and legal traditions. Furthermore, many of the strategies that Professor Weiss would invoke to enforce these rights and duties are just as problematic. The Planetary Rights Commissions, for example, are mechanisms that would be very difficult to implement in the environmental arena. The United Nations

143. *See id.* at 103 (conceding that our concern for future generations has attained the status of a moral principle, but not a legal one).

Environment Programme, which originally was envisioned as a supranational regulatory agency, has proved to be anything but that.[144] It has foundered on the shoals of national sovereignty, which merely highlights the desirability of constructing a new legal order that will not require the peoples of the world to step outside of their own jural communities.[145] It is true that the various international Human Rights Commissions provide some precedent for Planetary Rights Commissions.[146] Nevertheless, the former were created at the urging of the Western industrial democracies to implement Western notions of individual human rights, which are imbedded much more deeply in Western cultural and legal traditions than either group rights or individual environmental rights. With regard to the latter type of rights, despite the ongoing efforts of legal scholars and others to either discern or promote the recognition of individual environmental rights,[147] the existence of "a human right to a decent environment" remains controversial, as Professor Weiss herself observed.[148]

The intragenerational alternative to intergenerational equity has the twin virtues of being based only on individual rights and duties and of being based on them in a solely intranational context. Its reliance only on individual rights and duties is consistent with more than two centuries of Western liberal political ideology. Its solely intranational context recognizes the importance of jural community. It is true that few if any states, either in the West or elsewhere, have domestically codified the environmentally-oriented rights and duties that would be required by even the intragenerational alternative to intergenerational equity.[149] Nevertheless, the intragenerational alternative would require most countries to

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144. *Cf. id.* at 150 (noting the limited role played by UNEP).

145. *See generally* BARKUN, *supra* note 126.

146. *See* WEISS, *supra* note 2, at 111-13.

147. *See, e.g.*, Mark Allan Gray, *The International Crime of Ecocide*, 26 CAL. W. INT'L L. J. 215, 222-24, 251-54, 257 (1996); Neil A. F. Popovic, *In Pursuit of Environmental Human Rights: Commentary on the Draft Declaration of Principles on Human Rights and the Environment*, 27 COLUM. HUM. RTS. L. REV. 487 (1996); Susan Emmenegger & Axel Tschentscher, *Taking Nature's Rights Seriously: The Long Way to Biocentrism in Environmental Law*, 6 GEO. INT'L ENVTL. L. REV. 545, 559-62 (1994); Kristi N. Rea, *Linking Human Rights and Environmental Quality*, *in* 4 PAPERS ON INTERNATIONAL ENVIRONMENTAL NEGOTIATION 185 (Lawrence E. Susskind et al. eds., 1994).

148. WEISS, *supra* note 2, at 115-17; *see also* Gray, *supra* note 147, at 252-53; Supanich, *supra* note 58, at 94, 96-97.

149. *See, e.g.*, MD. CODE ANN., Nat. Res. § 1-302(d) (1978) (declaring as policy that "[e]ach person has a fundamental and inalienable right to a healthful environment, and each person has a responsibility to contribute to the protection, preservation, and enhancement of the environment."); *cf., e.g.*, Leatherburg v. Peters, 332 A.2d 41, 43 (Md. Ct. Spec. App.) (holding that Maryland Natural Resources Code § 1-302(d) does not create new or enlarged actionable rights), *aff'd sub nom.* Leatherburg v. Gaylord Fuel Corp., 347 A.2d 826, 834 (Md. 1975).

take a much smaller step in this regard than even Professor Weiss seems to acknowledge would be necessary to implement her proposal. Maybe they soon will be willing to take this smaller step.